

Steep-slope

Roofing

Materials Guide

2002-2003



2002-03

STEEP-SLOPE

ROOFING

MATERIALS

GUIDE

The information source on steep-slope roof system products for the roof designer, specifier, installer, manufacturers and user



10255 W. Higgins Road, Suite 600
Rosemont, IL 60018-5607
847/29-9070
FAX: 847/299-1183
E-mail: nrca@nrca.net
Internet: www.nrca.net

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Introduction

NRCA's 2002-03 *Steep-Slope Roofing Materials Guide* is a comprehensive report on steep-slope roof products currently on the market in the United States. It also provides pertinent information about the warranties offered for most asphalt shingle products.

The National Roofing Contractors Association (NRCA) publishes the guide as a service to the roofing industry. The objective of the guide is to provide information that will be helpful to users in determining which specific manufacturers' products will best serve their particular needs. It is of special value to those associated with the design, specification, application and use of steep-slope roof systems.

The guide's first edition was published in November 1992 and has been published annually since that time. From 1992 through 1998, this publication was titled *Residential Steep-Slope Roofing Materials Guide*. The term "residential steep-slope" distinguished it from a companion publication, the *Commercial Low-Slope Roofing Materials Guide*, which has been published since 1983. The *Commercial Low-Slope Roofing Materials Guide* provided product information on built-up, polymer modified bitumen, single-ply, sprayed polyurethane foam-based and structural metal panel roof system products, and warranty information for roof membrane systems.

When applied to the U.S. roofing market, the terms "commercial low-slope" and "residential steep-slope" are by no means definitive. Low-slope roofing products on non-residential buildings (e.g., commercial, industrial, and institutional buildings) and sometimes are used on residential buildings (e.g., single family homes, townhouses). Conversely, steep-slope roofing products on residential buildings and sometimes are used on non-residential buildings.

Beginning in 1999, the titles of these guides changed to the *Low-Slope Roofing Materials Guide* and the *Steep-Slope Roofing Materials Guide*. The reason for these title changes, and division of product categories, is for consistency with other NRCA publications, including *The NRCA Roofing and Waterproofing Manual*.

Steep-slope roofing products are those primarily intended for roofs with slopes greater than 3:12 (14 degrees). Asphalt shingle, fiber-cement, clay and concrete tile, wood shake and shingle, slate and architectural metal panel roof systems fit this category.

Low-slope roofing products are those primarily intended for roofs with slopes of 3:12 (14 degrees) or less. Built-up, polymer modified bitumen, single-ply, spray polyurethane foam-based and structural metal panel roof systems fit this category.

In publishing the *Steep-Slope Roofing Materials Guide*, NRCA maintains a policy of objectivity in its reporting of data. Nothing is required from listing manufacturers other than to adhere to the prescribed reporting formats. Any manufacturer of a product in the product categories included in the guide can be listed by submitting its information in accordance with the procedures developed for this purpose. Companies involved only in the distribution of other companies' brand-name roofing products are not included in this publication. Manufacturers interested in having their products listed in future editions of the guide are encouraged to contact NRCA at:

National Roofing Contractors Association
Attention: Roofing Materials Guide
10255 West Higgins Road, Suite 600
Rosemont, Illinois 60018-5607

NRCA exercises due care in accurately reporting the data supplied by product manufacturers. NRCA does not audit test procedures used to arrive at the reported data, nor assume responsibility for the accuracy or completeness of the data submitted. The presence or absence of a listing of products or manufacturers in the guide does not imply NRCA's approval or disapproval of the products or companies, nor does NRCA recommend that any specific materials be used or not.

NRCA does not develop standards itself but, instead, works towards and supports the improvements of existing standards and development of new ones by those organizations responsible for standards development. The fact that materials listed in the guide do or do not meet all the values of the reference standards, documents, recommendations or criteria does not necessarily imply that they will or will not produce acceptable roof systems.

How the Guide is Organized

The *Steep-Slope Roofing Materials Guide* is divided into nine primary sections:

- Section 1: Asphalt Shingles
- Section 2: Fiber-Cement
- Section 3: Clay and Concrete Tile
- Section 4: Metal Panels
- Section 5: Wood Shakes and Shingles
- Section 6: Slate
- Section 7: Underlayment Sheets
- Section 8: Incomplete Data

There is a general index listing all product manufacturers included in the guide and the locations of their specific product listings at the end of this introductory section. Also a listing of all product manufacturers and the locations of their specific products is provided at the beginning of each section, with exception to Section 9:

Incomplete Data.

There is also an introduction to information for each section at the beginning of each section. Finally, there are separate appendices at the end of each section with exception to Section 9: Incomplete Data. The purpose of these appendices is to provide manufacturer-supplied information that expands data listed in the category section itself. Appendix information can be found for a product when an “X” appears in the space at the end of the listing entitled “See Appendix if Checked”.

When reviewing the data in the guide, users should keep in mind that the format is designed to facilitate side-by-side product comparisons. For this reason, listing companies can only respond to existing items of requested information; they cannot add their own items. Footnoting is not permitted in guide listings; companies instead may expand on or clarify information by providing copy for the appendix.

Product Listings with Incomplete Data

Product manufacturers included in the guide are encouraged to provide NRCA with listing information for their products that is as complete as possible for publication in the guide. When manufacturers submit product information (e.g., test results) that is incomplete, these specific products have been omitted from the detailed listing sections of the guide. Manufacturers and products with incomplete product listing information are included in a new section of the guide, entitled Section 6: Incomplete Data.

NRCA has established this policy regarding manufacturers’ product listings with incomplete data at the request of users of the guide, who are clearly seeking detailed and complete product information from the guide and the companies listed.

Users of the guide who are interested in specific product information on a manufacturer’s product that is included in Section 6: Incomplete Data are encouraged to contact the product manufacturer directly. Manufacturers’ contact information is provided in the index section of the guide.

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	Asphalt Shingles	Asphalt Shingle Warranties	Fiber-Cement	Clay Tile	Concrete Tile	Metal Panels	Wood Shakes & Shingles	Slate	Underlayment Sheets	Incomplete Data
ALCO-NVC, INC. P.O. Box 14001 Detroit, MI 48214 800/323-0029 FAX: 313/331-4726 E-mail:alconvc@aol.com Web site: www.alconvc.com									216	
ALTUSA/CLAY FOREVER 6801 N.W. 77th Ave. #301 Miami, FL 33166 305/471-5830 FAX: 305/471-5883 E-mail: infor@altusa.com Web site: www.altusa.com				118 134						
AMARANT WOOD PRODUCTS P.O. Box 1008 Arcata, CA 95518 800/423-2205 FAX: 707/822-2823 E-mail: amarantwood@aol.com Web site:							196			
ANBROOK INDUSTRIES LTD. P.O. Box 3044 Sumas, WA 98295-3044 604/465-5657 FAX: 604/465-3657 E-mail:							196			
ANDEK CORPORATION P.O. Box 392 Moorestown, NJ 08057 888-GO-ANDEK FAX: 856/786-0580 E-mail: email@andek.com Web site: www.andek.com									217	
ATAS INTERNATIONAL INC. 6612 Snowdrift Rd. Allentown, PA 18106 610/395-8445 FAX: 610/395-9342 E-mail: info@atas.com Web site:						184				
ATLAS ROOFING CORPORATION 1775 The Exchange, Suite 160 Atlanta, GA 30339 770/933-4476 FAX: 770/952-3170 E-mail: Web site: www.atlasroofing.com	22 54	86							217	
B.C.F. SHAKE MILL LTD. Site 25 C-1 RR # 1 Fanny Bay, BC V0R 1W5 Canada 250/335-2969 FAX: 250/335-1425							197			
BERRIDGE MANUFACTURING CO. 1720 Maury St. Houston, TX 77026 713/223-4971 FAX: 713/236-9422 E-mail: sales@berridge.com Web site:						168				

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GAF MATERIALS CORP. 1361 Alps Road Wayne, NJ 07470 973/628-3000 FAX: 973/628-3356 E-mail: Web site: www.gaf.com	32 65	88							223	
GEORGIA-PACIFIC CORPORATION 4300 Wildwood Pkwy., Suite 300 Atlanta, GA 30339 770/221-2441 FAX: 770/221-8149 E-mail: Web site:	35 67	90								
GLADDING, MCBEAN P.O. BOX 97 Lincoln, CA 95648 800/964-2529 FAX: 916/645-1723 E-mail: rooftile@paccoast.com Web site: www.gladdingmcbean.com				119 135						
GREEN RIVER LOG SALES P.O. Box 515 Sumas, WA 98295 800/663-8707 FAX: 604/620-3872 E-mail: Web site:							197			
HENRY COMPANY 3802 Miller Park Drive Garland, TX 75042 877/294-4237 FAX: 800/586-9919 E-mail: sleonard@henry.com Web site:									223	
H & L SALVAGE INC. P.O. Box 19535 Thorne Bay, AK 99919 907/723-5302 FAX: none E-mail: Web site:							200			
HILLTOP SLATE INC. P.O. Box 201 Middle Granville, NY 12849 518/642-2270 FAX: 518/642-1220 E-mail: Web site: www.hilltopslate.com								208		
IMERY TOITURE c/o NORTHERN ROOF TILE SALES 50 Dundas Street, East, Suite 2 Dundas, ON L9H 7K6 Canada 905/689-4035 FAX: 905/689-7099				121 137						237
IKO MANUFACTURING INC. 120 Hay Rd. Wilmington DE 19809 302/764-3100 FAX: 302/764-5852 E-mail: Web site:	37 69	96								

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	Asphalt Shingles	Asphalt Shingle Warranties	Fiber-Cement	Clay Tile	Concrete Tile	Metal Panels	Wood Shakes & Shingles	Slate	Underlayment Sheets	Incomplete Data
LUDOWICI ROOF TILE, INC. P.O. BOX 69 New Lexington, OH 43764 800/945-8453 (tile) FAX: 740/342-5229 E-mail: info@ludowicrooftile.com Web site: www.ludowici.com				12 137						
MALARKEY ROOFING COMPANY P.O. Box 17217 Portland, OR 97217 503/283-1191 FAX: 503/283-5405 E-mail: Web site: www.malarkey-rfg.com	41 73	92							224	
MBCI P.O. Box 17217 Houston, TX 77238 281/445-8555 FAX: 281/445-1791 E-mail: Web site: www.mbc.com						174				
M.C.A. CLAY ROOF TILE 1985 Sampson Ave. Corona, CA 91719 909/736-9590 OR 800/736-6221 FAX: 909/736-6052 E-mail: sales@mca-tile.com Web site: www.mca-tile.com				131 146						
MCELROY METAL CO. 1500 Hamilton Road Bossier City, LA 71111 318/747-8000 FAX: 318/747-8029 E-mail: marketing@mcelroymetal.com Web site: www.mcelroymetal.com						175				
METAL SALES MANUFACTURING CORP. 7800 State Road 60 Sellersburg, IN 47172 812/246-0819 FAX: 812/246-0829 E-mail: Web site: www.mtlsales.com						178				
MET-TILE INC. 1745 Monticello Court Ontario, CA 91761 909/947-0311 FAX: 909/947-1510 E-mail: met-tile@met-tile.com Web site: www.met-tile.com						181				
NORTH COUNTRY SLATE 8800 Sheppard Ave. East Scarborough, ON Canada M1B 5R4 416/724-4666 OR 800/975-2835 FAX: 416/281-8842 E-mail: info@ncslate.com Web site: www.ncslate.com								209		
OWENS CORNING One Owens Corning Pkwy. Toledo, OH 43659 419/248-8000 FAX: 419/248-7354 E-mail: Web site: www.owenscorning.com	43 75	96				181			225	

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Section 1 - Asphalt Shingles

Information on Section 1: Asphalt Shingles

General Information

Section 1: Asphalt Shingles in NRCA's *2002-03 Steep-Slope Roofing Materials Guide* provides a comprehensive listing of asphalt shingle products commonly used in steep-slope roofing.

Asphalt shingle products are composed of (1) a base material, either organic felt or glass fiber mat, that provides support for the weather resistant components and gives the shingle strength; (2) asphalt; and (3) surfacing material, generally in the form of mineral granules, that provides protection from impact and ultraviolet degradation and improves fire resistance.

Asphalt shingles are categorized in different ways, depending on their reinforcement and shape. Asphalt shingles that use an organic reinforcing mat are referred to as *organic-reinforced asphalt shingles*, and those that use a glass fiber-reinforcing mat are referred to as *glass fiber-reinforced asphalt shingles*.

The appearance and shape of an asphalt shingle are generally identified as follows:

- *Strip Shingles* -- These shingles are in a strip form and are the most common type of asphalt shingles produced. They generally are longer in width than height. Common dimensions for standard shingles are 12 inches (300 mm) by 36 inches (910 mm). For metric-sized shingles, the common dimensions are approximately 13-1/4 inches (335 mm) by 39-3/8 inches (1 m). These dimensions can vary depending on the manufacturer, and some newer products are available in larger dimensions than traditional standard- or metric-sized asphalt strip shingles. Products referred to as 3-tab, 4-tab, random tab and no cut-out shingles are all generally categorized as *strip shingles*. Most strip shingles are "self-sealing"; that is, they contain an adhesive seal strip that bonds to the overlying course of shingles for increased wind resistance.

- *Laminated strip shingles* -- Sometimes called "dimensional" or "architectural" shingles, these shingles have additional material laminated to the strip to create random thicknesses thereby giving the shingles a more dimensional look. Most laminated shingles are "self-sealing"; that is, they contain an adhesive seal strip that bonds to the overlying course of shingles for increased wind resistance. Dimensions can vary depending on the manufacturer, and some newer products are available in larger dimensions than traditional standard- or metric-sized asphalt strip shingles.

- *Individual Shingles* -- Individual shingles are typically smaller than strip shingles, and more pieces are required to cover the same roof area than with strip shingles.

Particularly in the past, individual shingles were known for their unique visual patterns. Scalloped, fish scale, diagonal, diamond, and octagon are a few of the different patterns which can be achieved with individual shingles depending on their design, and some of these products are still available. Some of the individual shingles offer a locking feature to provide for increased wind resistance, since individual shingles typically do not contain self-sealing adhesive strips. The "T-Lock" design is an example of this locking type feature.

Specific Information Included in the Guide

Information on asphalt shingle products is presented in the guide in three parts: Part 1: General Information, Part 2: Technical Data and Part 3: Asphalt Shingle Warranties.

Specific information included in Part 1: General Information is as follows:

1. Company name
2. Product name
3. Product description
4. Shingle type
5. Color
6. Availability
7. Dimensions and coverage
8. Hip/ridge shingle available
9. Slope/underlayment requirements
10. Recommended deck material
11. Year product first sold
12. Number of squares installed
13. Manufacturers plant locations
14. Distribution
15. Sales and technical information contacts

In Part 2: Technical Data, specific listing information is as follows:

1. Company name
2. Product name
3. Product description
4. Complies with (ASTM standards)
5. Masses of asphalt shingles
6. Physical requirements
7. Fire/wind/impact resistance
8. Code acceptance

Reporting of technical data in Items 5 and 6 is based on the following American Society for Testing and Materials (ASTM) standards:

- ASTM D225, titled "Standard Specification for Asphalt Shingles (Organic Felt) Surfaced With Mineral Granules"
- ASTM D3018, titled "Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules"

- ASTM D3462, titled “Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules”.

Additional information regarding asphalt shingle roof systems is provided in *The NRCA Roofing and Waterproofing Manual*.

In Part 3: Asphalt Shingle Warranties information is derived from two sources: an examination of the warranty or guarantee document itself and the manufacturer’s response to a questionnaire sent by NRCA.

All manufacturers listing asphalt shingles in the guide are invited to submit their warranties for examination and listing. Those without warranty listings have elected not to participate.

For each warranty, there are 20 categories, or items of information listed. The information provided in the following categories was obtained by examination of the document itself, and provided by the manufacturer in response to a questionnaire accompanying the warranty document.

<u>No.</u>	<u>Item of Information</u>
1.	Identity of issuing entity
2.	Title, original publication date, and identifying symbol (if any)
3.	Products covered
4.	Scope of coverage
5.	Length of coverage
6.	Nature of remedy
7.	Monetary limitations
8.	Specific exclusions from coverage
9.	Wind coverage/exclusion
10.	Notification of requirements
11.	Determination of warranty applicability and coverage
12.	Issuing entity manufacturers and/or sells shingles
13.	Specific conditions that make warranty ineffective or void
14.	Inclusion of consequential damages
15.	Assignability
16.	Cost to obtain
17.	Warranty backed by insurance coverage
18.	Is the warranty an additional or exclusive remedy for the owner?
19.	Special features/conditions
20.	Executed by owner

NRCA endeavors to prepare an accurate, comprehensive, and objective listing for each warranty submitted by a manufacturer. Generally, a separate listing is generated for each document. Sometimes, however, a manufacturer uses the same warranty document to cover different

products, and in the length of coverage, the cost to obtain it, the minimum charge, or the monetary limitation vary. In such cases, there may be more than one listing for a particular warranty reflecting these differences.

A blank space appears for a category of information if a manufacturer does not provide the relevant data. Brackets ([]) are used in listings to indicate information that a manufacturer feels is pertinent but that may not be contained in the document or at least was not apparent to NRCA in its review. In effect, the use of bracketed statements provides a means for manufacturers to disagree with the analysis made of the document by NRCA; in some instances, these statements may even contradict NRCA’s conclusions concerning the import of language in a warranty,

It should be noted that the name of the manufacturer as it appears in Item 1 Identity of Issuing Entity may not necessarily be identical to or even similar to the one listed in the Index or in the asphalt shingle sections. This is because the name appearing in the warranty section is the name of the entity *appearing in the warranty document itself*. For example, if a manufacturer changes its corporate name but does not change a warranty document that bore its original name, the original name will appear in the warranty section. In other sections of the *Guide*, if one company purchases the assets of another, upon request NRCA simply moves the products of the acquired company under the name of the company that acquired it. In the warranty section, on the other hand, this may not be possible until warranty documents bearing the new corporate name are provided to NRCA. Until that time, the name of the entity must remain as it appears in the documents. An explanation of such situations is sometimes provided in a footnote in the warranty section in order to clarify an apparent discrepancy in corporate names.

By necessity, the warranty listings in the *Guide* present rather succinctly a great deal of information contained in the manufacturer’s warranties, as well as the policies surrounding them. For this reason, the reader should obtain and examine the warranty document itself, discuss additional questions with a representative of the party issuing the warranty, and obtain professional advice from counsel when desired. A warranty has significant legal consequences; therefore, all parties should understand the document at the outset of a construction project to preclude subsequent misunderstandings.

The firm of Hendrick, Phillips, Schemm & Salzman, Atlanta, Ga., in cooperation with NRCA staff prepares the warranty section of the Steep-Slope Roofing Materials Guide.

Understanding the Warranty Listing

Following are descriptions of the kind of data that is contained in the 20 categories of information included in each warranty listing.

1. Identity of issuing entity: This is the name of the legal entity that issues and is obligated to honor the warranty document. In most instances, this entity is the manufacturer of the product covered by the warranty (but see the explanation of Item 12 for information in this regard).

2. Title, original publication date, and identifying symbol (if any): The title listed is the title printed on the warranty document. The original publication date is the date that the manufacturer first promulgated the warranty form; the document may subsequently be reprinted in the exact same form. Some manufacturer's warranties contain an identifying symbol, or code, that is frequently a combination of numbers and letters, usually in the bottom right-hand or left-hand corner of the document. This identifying symbol indicates the precise document that was reviewed by NRCA. (For the reader to be certain that the warranty document he has in his possession is the same one listed in the *Guide*, the title of the document and the identifying symbol, if any, should match exactly.)

3. Products covered: This is an enumeration of the manufacturer's asphalt shingle products that are covered by the warranty. If properly updated by the manufacturer, the reader should be able to identify these products in the asphalt shingle section.

4. Scope of coverage: Information supplied in this category usually corresponds to the language used in the warranty document. Item 4a addresses whether the warranty provides coverage for defects in manufacture, as opposed to defects in application, which is covered in Item 4b. Virtually all asphalt shingle warranties provide coverage for leaks; others may provide coverage for other defects and conditions. This will be noted in item 4c. Few asphalt shingle warranties provide coverage for defects in other roofing work besides the shingles; if coverage is extended to flashings, metal work, or related application, this will be noted in 4d.

5. Length of coverage: This is the number of years for which the manufacturer will issue the warranty. The length of coverage will generally be stipulated to specific asphalt shingle products. Most coverage is prorated – that is, the coverage declines from the original cost of the shingles based on a formula related to the number of months elapsed in the warranty. Details on the prorating schedule are provide in items 5a, b, and c.

6. Nature of remedy: The heading states what action the manufacturer will take in the event that

there is a problem with the shingles covered under the warranty. The language used in this category generally parallels that appearing in the warranty document. For most asphalt shingle warranties, the remedy provided is payment for the purchase, or cost to repair or replacement of the shingles, often on a prorated basis.

7. Monetary limitations: The information provided for this category indicates whether the warranty contains a monetary limitation of the manufacturer's obligation under its warranty. The phrase *none stated* indicates that there is no monetary limitation stated in the document, meaning that the manufacturer is obligated to spend whatever sum is necessary in order to honor its warranty.

8. Specific exclusions from coverage: Most roofing warranties state that leaks resulting from certain enumerated causes (e.g., natural disasters, tornadoes, abuse or misuse) will not be covered. A numeric code is used in this category to reference specific exclusions from coverage, a key for which is provided below. The list of specific exclusions is a compilation of those appearing in warranty documents submitted to NRCA; the language appearing in the index is not necessarily the exact language appearing in a specific warranty document, but it reflects the same exclusion.

The absence of a specific exclusion from coverage does not necessarily mean that a warranty will be applicable to a condition or occurrence not specifically excluded. The applicability of the warranty will generally be determined from the information contained under the category Scope of Coverage.

Index of Specifically Enumerated Exclusions from Coverage

1. Natural disasters and acts of God (lightning, hurricanes, tornadoes, earthquakes)
2. Hail
3. Acts of negligence, abuse or misuse, accidents, vandalism
4. Damage by structural failure; settlement; movement; distortion; warpage; or buckling or cracking or roof deck, walls, or foundation
5. Failure of material and/or metal work not supplied by the manufacturer issuing the warranty
6. Changes, repairs, or alterations to roof or installation of equipment, fixtures, or utilities on or through roof after application
7. Defects in, failure or improper application of; roof insulation, roof deck, or any other underlying surface or material used as a base over which the shingles are applied.
8. Inadequate attic ventilation
9. Traffic or storage of materials on roof
10. Improper storage of shingles

11. Damage resulting from lack of positive, proper, or adequate drainage
12. Negligence or failure of owner to use reasonable care in maintenance of roof or failure to follow manufacturer's maintenance specifications
13. Variations in color caused by natural positioning of the granular surfacing material
14. Discoloration caused by algae, fungi, lichen, cyanobacteria, or environmental sooting
15. Repairs performed on materials furnished by others unless specifically authorized and approved by manufacturer; unauthorized repairs
16. Fire
17. Any cost incurred for repair or replacement not authorized by manufacturer
18. Contaminants that have not been approved first or accepted by manufacturer; exposure to or contact with damaging or deteriorating substances or agents
19. Defects or failure caused by misapplication of materials or by application not in strict adherence with manufacturer's specifications, application instructions, and approved practices
20. Application of shingles directly to insulation or an insulating deck without manufacturers' prior approval
21. Application of cleaning solutions, paint, or coatings
22. Infiltration or condensation of moisture in or through underlying areas; vapor condensation beneath the roof
23. Damages caused by falling objects
24. Damage to the shingles due to any cause other than manufacturing defects; acts of parties other than manufacturer
25. Appearance problems related to multi-layer installation, application over old shingles
26. Fore majeure; conditions of use of circumstances beyond the manufacturer's control

9. Wind coverage/exclusion: The purpose of this category is to convey the manufacturer's policy in regard to whether blow-off of the shingles or damage to them is limited to specific wind speeds and/or other conditions. Some manufacturer's warranties list gales, strong gales, windstorms, and/or hurricanes and tornadoes as examples of natural disasters or acts of God that are specifically excluded from warranty coverage. In order to provide more specific, affirmative information regarding the manufacturer's policy concerning wind coverage, NRCA asks manufacturers to identify the wind speed that is covered by each of their warranties or to state that the warranty does not cover damage to the roof caused by wind regardless of speed – meaning that any damage resulting from wind, even at extremely low speeds, is excluded from warranty coverage.

If NRCA believes that the manufacturer's response is potentially inconsistent with the wind exclusions stated in the warranty or creates an ambiguity, the manufacturer's response is included in brackets. If the warranty

document does not address the subject of wind, the information is based exclusively upon the manufacturer's response to the NRCA wind questions. If the manufacturer does not respond to the wind questions but the warranty addresses the subject of wind, the information is based exclusively on an examination of the warranty document. If the category remains blank, the warranty does not address the wind issue and the manufacturer did not respond to the wind questions.

10. Notification requirements: In this category is information concerning the action that an owner or other claimant is to take in order to make a warranty claim; of particular importance is the prescribed time period in which a leak or defect is to be reported to the manufacturer. If the warranty contains specific notification requirements, they are set forth here. Most warranties require that claimants provide the manufacturer with written notice of a warranty claim within 30 days of the discovery of a leak or purported defect. Some warranties require notice within 10 days and/or that written notice be sent by registered or certified mail.

11. Determination of warranty applicability: Some warranties state explicitly that the manufacturer has the right to determine whether a leak is covered or excluded from warranty coverage. The entry *manufacturer's determination* indicates that the manufacturer reserves to itself the right to determine whether a leak is covered or excluded from warranty coverage. Under these circumstances, the manufacturer's determination may be binding, even if it is erroneous and regardless of whether other parties disagree, provided that the manufacturer's determination was made in good faith.

If the entry in this category states *neutral (no provision)*, the manufacturer's warranty does not contain an explicit provision giving it the right to determine whether the warranty is or is not applicable to a problem. In the event of a dispute concerning the warranty's applicability, a neutral party would ultimately decide whether the warranty is applicable in this case.

12. Issuing entity manufactures and/or sells products: In this category is indicated whether the entity issuing the warranty is both the manufacturer and seller of the shingles covered under the warranty or whether the party issuing the warranty is only the seller.

13. Specific conditions to make the warranty ineffective or void: In addition to excluding warranty coverage for leaks resulting from specifically enumerated exclusions, manufacturers' warranties may provide that the entire warranty is ineffective or void under certain conditions. Unlike the category Specific Exclusions from Coverage, Category 13 refers to those conditions stated in the warranty document that will make the warranty null and void or ineffective in its entirety, as opposed to simply not

being responsive to a particular leak. For example, a warranty may indicate that repairs, alterations, or additions without the prior approval of the manufacturer make the warranty null and void; this differs from the statement that a leak resulting from a repair or alteration not previously approved by the manufacturer is excluded, or not covered, under the warranty.

An alphabetic code is used in this category to reference specific conditions to make a warranty ineffective or void, a key for which is provided below. The list of specific conditions is a compilation of conditions that appear in roof warranties submitted to NRCA; the language appearing in the various conditions is not necessarily the exact language appearing in a specific warranty document, but it reflects the intent.

Index of Specific Conditions that Make a Warranty Ineffective or Void:

- A. Shingles are not applied in accordance with manufacturer's application instructions or specifications
- B. Deck over which the shingles have been applied does not meet building code minimum requirements
- C. Roof structure is not properly vented; roof structure does not have thorough ventilation meeting building code minimum requirements; ventilation does not meet FHA minimum property standards
- D. Absence of underlayment in new construction or tear-off to deck
- E. Repairs or expenditures incurred prior to manufacturer's acknowledgement and acceptance of claim
- F. Shingles that are purchased or installed outside the United States or Canada
- G. Warranty registration form is not executed and submitted to manufacturer upon application of shingles
- H. Shingles are not installed by a roofing contractor certified by the manufacturer
- I. Lack of proper notification

14. Inclusion of consequential damages: The word *no* in this category indicates that the warranty does not cover consequential damages that may result from a roof leak, such as damage to the interior of the building. The majority of roof warranties expressly exclude consequential damages.

15. Assignability: Like other legal documents, warranties can generally be "assigned" or "transferred" by one party to another, unless there is a specific prohibition against such assignment. Some roofing warranties contain such prohibitions, and some state specifically that no assignment or transfer will be allowed without the prior

written permission of the manufacturer. The phrase *No restrictions stated* indicates that the warranty contains no provision barring, limiting, or conditioning the owner's rights to assign the warranty to a subsequent owner or party.

16. Cost to obtain: This is the amount, if any, that the manufacturer charges to obtain the warranty. The word *None* entered in this category means that there is no separate charge, apart from the cost of purchasing the materials, for the warranty. When there is a separate charge, it will generally be stated on a per-square (100 square feet) basis.

17. Backed by insurance coverage: This category indicates whether an insurance company is listed on the face of the warranty document and whether the manufacturer has insurance applicable to its warranty obligations. The entry of *No* indicates that no insurance company is named on the face of the warranty document, meaning that the owner or other claimant would not be entitled to assert a claim against an insurance company in the event that the manufacturer were unable to satisfy its warrant commitments.

NRCA also asks manufacturers if they carry insurance covering their warranty obligations and, if so, the type and amount of coverage. The manufacturer's response is included as part of the information provided in this category.

Exclusive or additional remedy: Under general legal principles, unless the warranty document specifically excludes other warranties and remedies that may be available to the owner and the owner agrees to be bound by the warranty terms, the rights and remedies set forth in the warranty document are in addition to those warranties, rights, and remedies that may be available to the owner or other claimant under state or statutory or common law. In addition to providing an owner with specific rights, warranty documents are frequently used as a liability-limiting device so that the liability of the party issuing the warranty is limited to what is prescribed in the warranty document. If the warranty states that it is an exclusive warranty and is issued in lieu of all other warranties, the claimant may not be entitled to seek recovery from the manufacturer based on the breach of any other warranties, express or implied.

The manufacturer's warranty may exclude or seek to exclude the implied and express warranties established by the Uniform Commercial Code (UCC). The UCC, as adopted in most states, provides that a warranty is implied in a contract for the sale of goods and that the goods shall be merchantable if the seller is a merchant of goods of that kind. To be merchantable, goods must be fit as least for the ordinary purposes for which such goods are used, must conform to the promises or affirmations made on the

container or label, and must pass without objection in the trade under the contract description. An implied warranty of fitness for particular purpose is created under the UCC when the seller at the time of contracting has reason to know any particular purpose for which the goods are required and that the buyer is relying on the seller's skill or judgment to select or furnish suitable goods.

In addition to those implied warranties, the UCC provides that express warranties are created when the seller (1) makes an affirmation of fact or promise to the buyer that relates to the goods and becomes a part of the basis of the bargain; (2) gives a description of the goods that is made part of the basis of the bargain; (3) provides a sample or model of the goods that is made a part of the basis of the program.

UCC implied warranties may be excluded in accordance with the requirements set forth in the Uniform Commercial Code.

In addition to seeking to make the warranty an exclusive warranty, a manufacturer's warranty may seek to limit the other remedies that the law would otherwise make available to a claimant. A warranty that states that it is the owner's exclusive remedy might limit the claimant's right to the terms of the warranty and preclude a claim based on another legal theory of liability. Some warranty documents state that the remedy provided in the warranty is the owner's "sole and exclusive remedy" and is the manufacturer's sole liability and obligation in the event of a roof problem regardless of whether the owner might otherwise be entitled to pursue a legal claim for breach of contract, negligence, or another legal theory of recovery.

The purpose of the category Exclusive or Additional Remedy is to give the reader an indication as to how the manufacturer's warranty may impact other warranties and remedies that may be available to an owner. The phrase *exclude UCC warranties* in this category means that it appears that the warranty document complies with the UCC requirements to exclude warranties established under the Uniform Commercial Code.

19. Special features/conditions: In this category are relatively unique or unusual features, conditions, or limitations. This category is generally based on the warranty document itself, but sometimes may be based on information supplied by the manufacturer.

20. Executed by owner: This category indicates whether the manufacturer's warranty form states on its face that is to be signed by the owner. Requiring the roofing warranty to be executed by the owner makes it more likely he will be bound to the terms and conditions set forth in the document in the event that a question subsequently arises

as to whether the owner agreed to the terms and conditions in the warranty.

Index to Asphalt Shingles

	Asphalt Shingles	Incomplete Data
ATLAS ROOFING CORPORATION 1775 The Exchange, Suite 160 Atlanta, GA 30339 770/933-4476 FAX: 770/952-3170 Web site: www.atlasroofing.com	22 54 86	
CERTAINTED CORPORATION ROOFING PRODUTS GROUP P.O. Box 1100 1400 Union Meeting Street Blue Bell, PA 19422 800/322-3060 FAX: 610/341-6212	25 57 86	
ELK 14643 Dallas Parkway, Suite 1000 Dallas, TX 75254 972/851-0400 FAX: 972/851-0401 Web: www.elkcorp.com	31 63 86	
GAF MATERIALS CORP. 1361 Alps Road Wayne, NJ 07470 973/628-3000 FAX: 973/628-3356	32 65 88	
GEORGIA-PACIFIC CORP. 4300 Wildwood Parkway, Ste 300 Atlanta, GA 30339 770/221-2441 FAX: 770/221-8149	35 67 90	

	Asphalt Shingles	Incomplete Data
IKO MANUFACTURING 120 Hay Road Wilmington, DE 19809 302/764-3100 FAX: 302/764-5852	37 69 94	
MALARKEY ROOFING COMPANY P.O. Box 17217 Portland, OR 97217 503/283-1191 FAX: 503/283-5405 Web: www.malarkey-rfg.com	41 73 92	
OWENS CORNING One Owens Corning Parkway Toledo, OH 43659 419/248-8000 FAX: 419/248-7354 E-mail: Web: www.owenscorning.com	43 75 96	
PABCO ROOFING MANUFACTURER 1718 Thorne Road Tacoma, WA 98421 253/272-0374 FAX: 253/572-4997 E-mail: pabcoroof@paccoast.com	47 79 98	
TAMKO ROOFING PRODUCTS P.O. Box 1404 220 W. 4th Street Joplin, MO 64801 417/624-6644 FAX: 417/624-8935 Web: www.tamko.com	49 81 98	

Asphalt Shingles Part 1: General Information

1.	COMPANY NAME	ATLAS ROOFING CORPORATION	ATLAS ROOFING CORPORATION	ATLAS ROOFING CORPORATION
2.	PRODUCT NAME	PINNACLE 40	PINNACLE 30	PINNACLE 30
3.	PRODUCT DESCRIPTION			
	Felt Material (organic/fiberglass)	FIBERGLASS	FIBERGLASS	FIBERGLASS
	Construction (laminated/nonlaminated)	LAMINATED	LAMINATED	LAMINATED
	Granule Composition	CERAMIC	CERAMIC	CERAMIC
4.	SHINGLE TYPE			
	Self-Sealing 3-Tab Strip			
	Self-Sealing 4-Tab Strip			
	Self-Sealing Random-Tab Strip			
	Self-Sealing No Cutout	X	X	X
	Individual Interlocking			
5.	COLOR:			
	Number of Colors Available (/ marks number by region)	6	8	8
	Color Availability (regional/national)	NATIONAL	NATIONAL	NATIONAL
	Colors	ANTIQUE BLACK BURNT SIENNA HEATHERBLEND HEARTHSTONE GRAY WEATHERED WOOD WOODLAND GREEN	ANTIQUE BLACK BURNT SIENNA DESERT SHAKE DOVE GRAY HEATHER BLEND HEARTHSTONE GRAY WEATHERED WOOD WOODLAND GREEN	ANTIQUE BLACK DESERT SHAKE HEATHERSHAKE HEATHERBLEND HEARTHSTONE GRAY NATCHEZ GRAY STONE MOUNTAIN GRAY WEATHERED WOD WOODLAND GREEN
6.	AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO	NO
7.	DIMENSIONS AND COVERAGE			
	Shingle Dimensions (inches x inches)	38 13/16 X 13 1/8	38 13/16 X 13 1/8	38 13/16 X 13 1/8
	Exposure (inches)	5 5/8	5 5/8	5 5/8
	Headlap (inches)	7 1/2	7 1/2	7 1/2
	Shingles Per Roof Square	66	66	66
	Bundles Per Square	4	3	3
	Weight Per Roof Square (pounds)			
8.	HIP/RIDGE SHINGLE AVAILABLE (nationally, regionally, no)	NATIONALLY	NATIONALLY	NATIONALLY
9.	SLOPE/UNDERLAYMENT RECOMMENDATIONS			
	Minimum Slope Recommended For Normal Application (inches per foot)	4:12	4:12	4:12
	Underlayment Recommended in Normal Application	15-LB. FELT	15-LB. FELT	15-LB. FELT
	Minimum Slope Recommended For Special Application (inches per foot)	2:12	2:12	2:12
	Underlayment Recommended in Special Application	2 15-LB. FELTS, STORM-MASTER DG OPTIONAL	2 15-LB. FELTS, STORM-MASTER DG OPTIONAL	2 15-LB. FELTS, STORM-MASTER DG OPTIONAL
10.	RECOMMENDED DECK MATERIAL			
	Plywood/Wood	X	X	X
	Oriented-Strand Board	X	X	X
	Waferboard	X	X	X
	Other (specify)	VENTED-R NAILBASE	VENTED-R NAILBASE	VENTED-R NAILBASE
11.	YEAR PRODUCT FIRST SOLD			
12.	NUMBER OF SQUARES INSTALLED			
13.	MANUFACTURERS PLANT LOCATIONS (CITY, STATE)	DANGERFIELD, TX FRANKLIN, OH	FRANKLIN, OH	MERIDIAN, MS
14.	DISTRIBUTION			
	Distributors (number handling product or no)	500+	500+	500+
	Direct (number of regional service locations or no)			
15A.	FOR SALES INFORMATION, CONTACT:	ATLAS REGIONAL SALES OFFICES	ATLAS REGIONAL SALES OFFICES	ATLAS REGIONAL SALES OFFICES
15B.	FOR TECHNICAL INFORMATION, CONTACT:	601/481-1470	601/481-1470	601/481-1470
16.	SEE APPENDIX IF CHECKED	X	X	X

NA=not applicable

Asphalt Shingles Part 1: General Information

ATLAS ROOFING CORPORATION	ATLAS ROOFING CORPORATION	ATLAS ROOFING CORPORATION	ATLAS ROOFING CORPORATION	ATLAS ROOFING CORPORATION	ATLAS ROOFING CORPORATION
STORMMASTER LM SBS MODIFIED	STORMMASTER ST SBS MODIFIED	GLASSMASTER 25	GLASS MASTER 25 ALPINE	GLASSMASTER 20	GLASSMASTER T-LOK
FIBERGLASS LAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC	FIBERGLASS NONLAMINATED	FIBERGLASS NONLAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC
	X	X	X	X	
X					X
5	5	9	4	10	2
NATIONAL BROWN BLEND COPPERWOOD HEARTHSTONE GRAY WEATHERED WOOD WOODLAND GREEN	NATIONAL BROWN BLEND COPPERWOOD HEARTHSTONE GRAY SILVER WHITE WEATHERED WOOD	NATIONAL ANTIQUE BLACK BURNT SIENNA DESERT SHAKE DOVE GRAY HEATHERBLEND HEARTHSTONE GRAY SILVER WHITE WEATHERED WOOD WOODLAND GREEN	REGIONALLY HEARTHSTONE GRAY TILE RED WEATHERED WOOD WOODLAND GREEN	REGIONALLY ANTIQUE BLACK BROWN BLEND COPPERWOOD HEARTHSTONE GRAY HERITAGE RED NATCHEZ GRAY RUSSET, SILVER WHITE WEATHERED WOOD WOODLAND GREEN	REGIONALLY DESERT SHAKE SILVER WHITE
NO	NO	NO	YES	YES	NO
38 13/16 X 13 1/8	12 X 36	12 X 36	12 X 36	12 X 36	21 1/2 X 21
5 5/8	5	5	5	5	12 X 12-SHINGLE
7 1/2	7	7	7	7	NA
66	80	80	80	80	99
3	3	3	3	3	3
NATIONALLY	NATIONALLY	NATIONALLY	REGIONALLY	REGIONALLY	REGIONALLY
4:12	2:12	4:12	4:12	4:12	4:12
15-LB. FELT	15-LB. FELT	15-LB. FELT	15-LB. FELT	15-LB. FELT	15-LB. FELT
4:12	2:12	2:12	2:12	2:12	
2 15-LB. FELTS, STORM-MASTER DG OPTIONAL	2 15-LB. FELTS, STORM-MASTER DG OPTIONAL	2 15-LB. FELTS, STORM-MASTER DG OPTIONAL	2 15-LB. FELTS, STORM-MASTER DG OPTIONAL	2 15-LB. FELT+H19S, STORM-MASTER DG OPTIONAL	STORMMASTER DG OPTIONAL
X	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X	X	X
VENTED-R NAILBASE	VENTED-R NAILBASE	VENTED-R NAILBASE	VENTED-R NAILBASE	VENTED-R NAILBASE	VENTED-R NAILBASE
MERIDIAN, MS	MERIDIAN, MS	ARDMORE, OK FRANKLIN, OH HAMPTON, CA MERIDIAN, MS QUAKERTOWN, PA	ARDMORE, OK	ARDMORE, OK HAMPTON, CA MERIDIAN, MS QUAKERTOWN, PA	ARDMORE, OK
500+	500+	500+	500+	500+	500+
ATLAS REGIONAL SALES OFFICES 601/481-1470	ATLAS REGIONAL SALES OFFICES 601/481-1470	ATLAS REGIONAL SALES OFFICES 601/481-1470	ATLAS REGIONAL SALES OFFICES 601/481-1470	ATLAS REGIONAL SALES OFFICES 601/481-1470	ATLAS REGIONAL SALES OFFICES 601/481-1470
X	X	X	X	X	X

Asphalt Shingles Part 1: General Information

1.	COMPANY NAME	ATLAS ROOFING CORPORATION	ATLAS ROOFING CORPORATION	ATLAS ROOFING CORPORATION
2.	PRODUCT NAME	WEATHERMASTER 25	CHALET	LEGEND
3.	PRODUCT DESCRIPTION			
	Felt Material (organic/fiberglass)	ORGANIC	FIBERGLASS	FIBERGLASS
	Construction (laminated/nonlaminated)	NONLAMINATED	NONLAMINATED	NONLAMINATED
	Granule Composition	CERAMIC	CERAMIC	CERAMIC
4.	SHINGLE TYPE			
	Self-Sealing 3-Tab Strip	X	X	X
	Self-Sealing 4-Tab Strip			
	Self-Sealing Random-Tab Strip			
	Self-Sealing No Cutout			
	Individual Interlocking			
5.	COLOR:			
	Number of Colors Available (/ marks number by region)	7	7	5
	Color Availability (regional/national)	REGIONAL	REGIONALLY	REGIONALLY
	Colors	ACORN ANTIQUE BLACK DESERT SHAKE DOVE GRAY SILVER WHITE WEOATHERED WOOD WOODLAND GREEN	COLONIAL GRAY COLONIAL BLACK GRAYSTONE HEATERBLEND SLATE GRAY WEATHERED SHAKE WOODLAND GREEN	BLACK SHADOW DESERT SHAKE HEARTHSTONE GRAY WEATHERED WOOD WOODLAND GREEN
6.	AVAILABILITY RESTRICTED REGIONALLY (yes/no)	YES	YES	YES
7.	DIMENSIONS AND COVERAGE			
	Shingle Dimensions (inches x inches)	12 X 36	12 X 36	12 X 36
	Exposure (inches)	5	5 5/16	5
	Headlap (inches)	7	7	7
	Shingles Per Roof Square	80	78	80
	Bundles Per Square	3	3	3
	Weight Per Roof Square (pounds)			
8.	HIP/RIDGE SHINGLE AVAILABLE (nationally, regionally, no)	REGIONAL	REGIONALLY	REGIONALLY
9.	SLOPE/UNDERLAYMENT RECOMMENDATIONS			
	Minimum Slope Recommended For Normal Application (inches per foot)	4:12	4:12	4:12
	Underlayment Recommended in Normal Application	15-LB. FELT	15-LB. FELT	15-LB. FELT
	Minimum Slope Recommended For Special Application (inches per foot)	2:12	2:12	2:12
	Underlayment Recommended in Special Application	2 15-LB. FELTS, STORM-MASTER DG OPTIONAL	2 15-LB. FELTS, STORM-MASTER DG OPTIONAL	2 15-LB. FELTS, STORM-MASTER DG OPTIONAL
10.	RECOMMENDED DECK MATERIAL			
	Plywood/Wood	X	X	X
	Oriented-Strand Board	X	X	X
	Waferboard	X	X	X
	Other (specify)	VENTED-R NAILBASE	VENTED-R NAILBASE	VENTED-R NAILBASE
11.	YEAR PRODUCT FIRST SOLD			
12.	NUMBER OF SQUARES INSTALLED			
13.	MANUFACTURERS PLANT LOCATIONS (CITY, STATE)	ARDMORE, OK QUAKERTOWN, PA	HAMPTON, CA	ARDMORE, OK QUAKERTOWN, PA
14.	DISTRIBUTION			
	Distributors (number handling product or no)	500+	500+	500+
	Direct (number of regional service locations or no)			
15A.	FOR SALES INFORMATION, CONTACT:	ATLAS REGIONAL SALES OFFICES	ATLAS REGIONAL SALES OFFICES	ATLAS REGIONAL SALES OFFICES
15B.	FOR TECHNICAL INFORMATION, CONTACT:	601/481-1470	601/481-1470	770/933-4478
16.	SEE APPENDIX IF CHECKED	X	X	X

NA=not applicable

Asphalt Shingles Part 1: General Information

ATLAS ROOFING CORPORATION	CERTAINTED CORPORATION	CERTAINTED CORPORATION	CERTAINTED CORPORATION	CERTAINTED CORPORATION	CERTAINTED CORPORATION
STRATFORD	WOODSCAPE 40	WOODSCAPE 30	WOODSCAPE 25	SEAL KING 25	JET 25
FIBERGLASS OVERLAY CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC
				X	
X	X	X	X		X
5	10	10	10	14	7
REGIONALLY COLONIAL BLACK GRAYSTONE HEATHERBLEND WEATHERED SHAKE WOODLAND GREEN	REGIONAL SEE APPENDIX	REGIONAL SEE APPENDIX	REGIONAL SEE APPENDIX	REGIONAL SEE APPENDIX	REGIONAL BLACK BLENDE CHESTNUT BROWN FROST BLENDE MOIRE BLACK SLATE BLENDE SNOW WHITE WOOD BLENDE
YES	YES	YES	YES	YES	YES
37 1/2 X 12	12 X 36	12 X 36	12 X 36	12 X 36	12 X 36
5 11/32 X 5 5/16	5	5	5	5	5
6 5/16	2	2	2	2	2
72 / 76	80	80	78	80	80
3	4	4	3	3	3
	300	265	250	230	225
REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY
4:12	4:12	4:12	4:12	4:12	4:12
15-LB. FELT	ROOFERS' SELECT	ROOFERS' SELECT	ROOFERS' SELECT	ROOFER'S SELECT	ROOFER'S SELECT
2:12	2:12	2:12	2:12	2:12	2:12
2 15-LB. FELTS SOTRM-MASTER DG OPTIONAL	WINTERGUARD	WINTERGUARD	WINTERGUARD	WINTERGUARD	WINTERGUARD
X	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X	X	X
VENTED-R NAILBASE					
	1994	1974	1987	1987	1987
HAMPTON, GA QUAKERTOWN, PA	NORWOOD, MA	NORWOOD, MA	NORWOOD, MA	NORWOOD, MA	NORWOOD, MA
500+					
	NO	NO	NO	NO	NO
ATLAS REGIONAL SALES OFFICES	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)
770/933-4478	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)
X	X	X	X	X	X

Asphalt Shingles Part 1: General Information

1.	COMPANY NAME	CERTAINTED CORPORATION	CERTAINTED CORPORATION	CERTAINTED CORPORATION
2.	PRODUCT NAME	GRAND MANOR SHANGLE	CARRIAGE HOUSE SHANGLE	HATTERAS
3.	PRODUCT DESCRIPTION			
	Felt Material (organic/fiberglass)	FIBERGLASS	FIBERGLASS	FIBERGLASS
	Construction (laminated/nonlaminated)	LAMINATED	LAMINATED	NONLAMINATED
	Granule Composition	CERAMIC	CERAMIC	CERAMIC
4.	SHINGLE TYPE			
	Self-Sealing 3-Tab Strip			
	Self-Sealing 4-Tab Strip		X	X
	Self-Sealing Random-Tab Strip	X		
	Self-Sealing No Cutout			
	Individual Interlocking			
5.	COLOR:			
	Number of Colors Available (/ marks number by region)	8	8	9
	Color Availability (regional/national)	NATIONAL	NATIONAL	REGIONAL
	Colors	BLACK PEARL BROWNSTONE COLONIAL SLATE GATEHOUSE SLATE GEORGIAN BRICK HEIRLOOM SILVER SHERWOOD FOREST STONEGATE GRAY	BLACK PEARL BROWNSTONE COLONIAL SLATE GATEHOUSE SLATE GEORGIAN BRICK SHERWOOD FOREST STONEGATE GRAY VICTORIAN BLUE	LIGHTHOUSE RED NEWPORT GREEN OUTER BANKS OYSTER GRAY REGATTA BLUE SANDPIPER STORMY NIGHT WINDSWEEP GRAY WEATHERED WOOD
6.	AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO	YES
7.	DIMENSIONS AND COVERAGE			
	Shingle Dimensions (inches x inches)	18 X 36	18 X 36	18 X 36
	Exposure (inches)	8	8	8
	Headlap (inches)	2	2	2
	Shingles Per Roof Square	50	50	50
	Bundles Per Square	5	5	3
	Weight Per Roof Square (pounds)	425	355	235
8.	HIP/RIDGE SHINGLE AVAILABLE (nationally, regionally, no)	NATIONALLY	NATIONALLY	REGIONALLY
9.	SLOPE/UNDERLAYMENT RECOMMENDATIONS			
	Minimum Slope Recommended For Normal Application (inches per foot)	4:12	4:12	4:12
	Underlayment Recommended in Normal Application	ROOFERS' SELECT	ROOFERS' SELECT	ROOFERS' SELECT
	Minimum Slope Recommended For Special Application (inches per foot)	2:12	2:12	2:12
	Underlayment Recommended in Special Application	WINTERGUARD	WINTERGUARD	WINTERGUARD
10.	RECOMMENDED DECK MATERIAL			
	Plywood/Wood	X	X	X
	Oriented-Strand Board	X	X	X
	Waferboard	X	X	X
	Other (specify)			
11.	YEAR PRODUCT FIRST SOLD	1991	1993	1998
12.	NUMBER OF SQUARES INSTALLED			
13.	MANUFACTURERS PLANT LOCATIONS (CITY, STATE)	OXFORD, NC	OXFORD, NC	OXFORD, NC
14.	DISTRIBUTION			
	Distributors (number handling product or no)			
	Direct (number of regional service locations or no)	NO	NO	NO
15A.	FOR SALES INFORMATION, CONTACT:	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)
15B.	FOR TECHNICAL INFORMATION, CONTACT:	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)
16.	SEE APPENDIX IF CHECKED	X	X	

NA=not applicable

Asphalt Shingles Part 1: General Information

CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION
HALLMARK SHANGLE	INDEPENDENCE SHANGLE	LANDMARK 40	LANDMARK 30	LANDMARK 25	CLASSIC HORIZON SHANGLE
ORGANIC LAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS OVERLAY CERAMIC
					X
X	X				
		X	X	X	
5	7/10	12/16/10	12/16/10	12/16/10	9
REGIONAL BRONZED BROWN GOLDEN TAN HICKORY BARK PEWTER GRAY WEATHERED SHAKE	REGIONAL BURNT SIENNA COLONIAL SLATE COTTAGE RED DRIFTWOOD HEATHER BLEND HUNTER GREEN WEATHERED WOOD ADDITIONAL BY REGION	REGIONAL BURNT SIENNA COBBLESTONE GRAY DRIFTWOOD HEATHER BLEND HUNTER GREEN NOIRE BLACK RESAWN SHAKE WEATHERED WOOD ADDITIONAL BY REGION	REGIONAL BURNT SIENNA COBBLESTONE GRAY DRIFTWOOD HEATHER BLEND HUNTER GREEN NOIRE BLACK RESAWN SHAKE WEATHERED WOOD ADDITIONAL BY REGION	REGIONAL BURNT SIENNA COBBLESTONE GRAY DRIFTWOOD HEATHER BLEND HUNTER GREEN NOIRE BLACK RESAWN SHAKE WEATHERED WOOD ADDITIONAL BY REGION	REGIONAL GRAYSTONE HOMESTEAD SLATE HORIZON BLUE PRAIRIE WOOD RESAWN SHAKE SHADOW BLACK VALLEY FORGE GREEN WEATHERED WOOD WILLIAMSBURG GRAY
YES	NO	NO	NO	NO	YES
12 X 36	12 X 36	12 X 36	12 X 36	12 X 36	12 X 36
5	5	5	5	5	5
2	2	2	2	2	2
80	80	80	80	80	80
5	4	4	4	4	3
330	300	300	265	245/250	250
REGIONALLY	NATIONALLY	NATIONALLY	NATIONALLY	NATIONALLY	REGIONALLY
4:12	4:12	4:12	4:12	4:12	4:12
ROOFERS' SELECT	ROOFERS' SELECT	ROOFERS' SELECT	ROOFERS' SELECT	ROOFERS' SELECT	ROOFERS' SELECT
2:12	2:12	2:12	2:12	2:12	2:12
WINTERGUARD	WINTERGUARD	WINTERGUARD	WINTERGUARD	WINTERGUARD	WINTERGUARD
X	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X	X	X
1965	1976	1996	1996	1997	1982
SHAKOPEE, MN	OXFORD, NC SHAKOPEE, MN AVERY, OH	AVERY, OH NORWOOD, MA PEACHTREE CITY, GA BIRMINGHAM, AL ENNIS, TX PORTLAND, OR WILMINGTON, DE	AVERY, OH NORWOOD, MA PEACHTREE CITY, GA BIRMINGHAM, AL ENNIS, TX PORTLAND, OR WILMINGTON, DE	AVERY, OH NORWOOD, MA PEACHTREE CITY, GA BIRMINGHAM, AL ENNIS, TX PORTLAND, OR WILMINGTON, DE	OXFORD, NC
NO	NO	NO	NO	NO	NO
LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)
800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)
X	X	X	X	X	X

Asphalt Shingles Part 1: General Information

1.	COMPANY NAME	CERTAINEED CORPORATION	CERTAINEED CORPORATION	CERTAINEED CORPORATION
2.	PRODUCT NAME	NEW HORIZON SHANGLE	LANDMARK TL	HEARTHSTEAD
3.	PRODUCT DESCRIPTION			
	Felt Material (organic/fiberglass)	FIBERGLASS	FIBERGLASS	ORGANIC
	Construction (laminated/nonlaminated)	OVERLAY	LAMINATED	NONLAMINATED
	Granule Composition	CERAMIC	CERAMIC	CERAMIC
4.	SHINGLE TYPE			
	Self-Sealing 3-Tab Strip			
	Self-Sealing 4-Tab Strip			X
	Self-Sealing Random-Tab Strip			
	Self-Sealing No Cutout	X		
	Individual Interlocking			
5.	COLOR:			
	Number of Colors Available (/ marks number by region)	9/7	8	6
	Color Availability (regional/national)	REGIONAL	NATIONAL	REGIONAL
	Colors	GRAYSTONE HARVEST BROWN HOMESTEAD SLATE HORIZON BLUE PRAIRIE WOOD SHADOW BLACK VALLEY FORGE GREEN WEATHERED WOOD WILLIAMSBURG GRAY	BURNT SIENNA COBBLESTONE GRAY CUMBERLAND MOIRE BLACK OLD OVERTON RESAWN SHENANDOAH WEATHERED WOOD	DRIFTWOOD HEATHERWOOD PARK GREEN PEWTER SLATE GRAY WEATHERED GRAY
6.	AVAILABILITY RESTRICTED REGIONALLY (yes/no)	YES	NO	YES
7.	DIMENSIONS AND COVERAGE			
	Shingle Dimensions (inches x inches)	12 X 36	13 1/4 X 40	12 X 36
	Exposure (inches)	5	5 5/8	5
	Headlap (inches)	2	2	2
	Shingles Per Roof Square	80	64	80
	Bundles Per Square	3	4	3
	Weight Per Roof Square (pounds)	245/250	340	225
8.	HIP/RIDGE SHINGLE AVAILABLE (nationally, regionally, no)	REGIONALLY	NATIONALLY	REGIONALLY
9.	SLOPE/UNDERLAYMENT RECOMMENDATIONS			
	Minimum Slope Recommended For Normal Application (inches per foot)	4:12	4:12	4:12
	Underlayment Recommended in Normal Application	ROOFERS' SELECT	ROOFER'S SELECT	ROOFERS' SELECT
	Minimum Slope Recommended For Special Application (inches per foot)	2:12	2:12	2:12
	Underlayment Recommended in Special Application	WINTERGUARD	WINTERGUARD	WINTERGUARD
10.	RECOMMENDED DECK MATERIAL			
	Plywood/Wood	X	X	X
	Oriented-Strand Board	X	X	X
	Waferboard	X	X	X
	Other (specify)			
11.	YEAR PRODUCT FIRST SOLD	1996	1995	1985
12.	NUMBER OF SQUARES INSTALLED			
13.	MANUFACTURERS PLANT LOCATIONS (CITY, STATE)	AVERY, OH OXFORD, NC SHAKOPEE, MN		SHAKOPEE, MN
14.	DISTRIBUTION			
	Distributors (number handling product or no)			
	Direct (number of regional service locations or no)	NO	NO	NO
15A.	FOR SALES INFORMATION, CONTACT:	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)
15B.	FOR TECHNICAL INFORMATION, CONTACT:	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)
16.	SEE APPENDIX IF CHECKED	X	X	X

NA=not applicable

Asphalt Shingles Part 1: General Information

CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION
CUSTOM SEALDON 30	XT 30	XT 25	PRESIDENTIAL TL	SEALDON 25	CT 20
ORGANIC NONLAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	ORGANIC NONLAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC
X	X	X		X	X
11	15/14/13/10/12	14/12/10/12/12	6	10	13/11/8
REGIONAL SEE APPENDIX	REGIONAL CINNAMON FROST EVERGREEN BLEND MOIRE BLACK OAKWOOD SLATE GRAY STAR WHITE TIMBER BLEND WEATHERED WOOD ADDITIONAL BY REGION	REGIONAL GRAY FROST OAKWOOD STAR WHITE WEATHERED WOOD ADDITIONAL BY REGION	NATIONAL AUTUMN BLEND BARK BROWN CHARCOAL GRAY SHADOW GRAY SPANISH TILE WEATHERED WOOD	REGIONAL SEE APPENDIX	REGIONAL DOVE GRAY MOIRE BLACK SLATE GRAY STAR WHITE WEATHERED WOOD ADDITIONAL BY REGION
YES	YES	YES	NO	YES	YES
12 X 36	12 X 36	12 X 36	14 1/4 X 40	12 X 36	12 X 36
5	5	5	4	5	5
2	2	2	2	2	2
80	80	80	90	80	80
3	3	3	6	3	3
250	250/245	230/225	480	225	200
REGIONALLY	REGIONALLY	REGIONALLY	NATIONALLY	REGIONALLY	REGIONALLY
4:12	4:12	4:12	4:12	4:12	4:12
ROOFERS' SELECT	ROOFERS' SELECT	ROOFERS' SELECT	ROOFER'S SELECT	ROOFERS' SELECT	ROOFERS' SELECT
2:12	2:12	2:12	2:12	2:12	2:12
WINTERGUARD	WINTERGUARD	WINTERGUARD	WINTERGUARD	WINTERGUARD	WINTERGUARD
X	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X	X	X
1991	1997	1985	1999	1950s	1970s
SHAKOPEE, MN	AVERY, OH NORWOOD, MA OXFORD, NC PORTLAND, OR SHAKOPEE, MN SHREVEPORT, LA	AVERY, OH NORWOOD, MA OXFORD, NC SHAKOPEE, MN SHREVEPORT, LA		SHAKOPEE, MN	OXFORD, NC PORTLAND, OR SHREVEPORT, LA
NO	NO	NO	NO	NO	NO
LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)
800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)
X	X	X	X	X	X

Asphalt Shingles Part 1: General Information

1.	COMPANY NAME	CERTAINEED CORPORATION	CERTAINEED CORPORATION	CERTAINEED CORPORATION
2.	PRODUCT NAME	CUSTOM LOK 25	ARCHITECT 80	FIRE-HALT
3.	PRODUCT DESCRIPTION			
	Felt Material (organic/fiberglass)	ORGANIC	FIBERGLASS	FIBERGLASS
	Construction (laminated/nonlaminated)	NONLAMINATED	LAMINATED	LAMINATED
	Granule Composition	CERAMIC	CERAMIC	CERAMIC
4.	SHINGLE TYPE			
	Self-Sealing 3-Tab Strip			
	Self-Sealing 4-Tab Strip			
	Self-Sealing Random-Tab Strip			
	Self-Sealing No Cutout		X	X
	Individual Interlocking	X		
5.	COLOR:			
	Number of Colors Available (/ marks number by region)	8	10	5/3/4/3
	Color Availability (regional/national)	REGIONAL	REGIONAL	REGIONAL
	Colors	BLACK EVERGREEN BLEND GRAY FROST MINT FROST OAKWOOD PEWTER STAR WHITE TIMBER BLEND WEATHERED WOOD		LIMITED BY REGION
6.	AVAILABILITY RESTRICTED REGIONALLY (yes/no)	YES	YES	YES
7.	DIMENSIONS AND COVERAGE			
	Shingle Dimensions (inches x inches)	20 13/16 X 21 1/2	13 1/4 X 38 3/4	13 1/4 X 38 3/4
	Exposure (inches)	14	5 5/8	5 5/8
	Headlap (inches)	2	2	2
	Shingles Per Roof Square	99	66	66
	Bundles Per Square	3	4	3
	Weight Per Roof Square (pounds)	250	265	240
8.	HIP/RIDGE SHINGLE AVAILABLE (nationally, regionally, no)	REGIONALLY	REGIONALLY	REGIONALLY
9.	SLOPE/UNDERLAYMENT RECOMMENDATIONS			
	Minimum Slope Recommended For Normal Application (inches per foot)	4:12	4:12	4:12
	Underlayment Recommended in Normal Application	ROOFERS' SELECT	ROOFERS' SELECT	ROOFERS' SELECT
	Minimum Slope Recommended For Special Application (inches per foot)	2:12	2:12	2:12
	Underlayment Recommended in Special Application	WINTERGUARD	WINTERGUARD	WINTERGUARD
10.	RECOMMENDED DECK MATERIAL			
	Plywood/Wood	X	X	X
	Oriented-Strand Board	X	X	X
	Waferboard	X	X	X
	Other (specify)			
11.	YEAR PRODUCT FIRST SOLD	1960s	1971	1988
12.	NUMBER OF SQUARES INSTALLED			
13.	MANUFACTURERS PLANT LOCATIONS (CITY, STATE)	SHAKOPEE, MN	PORTLAND, OR	BIRMINGHAM, AL ENNIS, TX PORTLAND, OR WILMINGTON, CA
14.	DISTRIBUTION			
	Distributors (number handling product or no)			
	Direct (number of regional service locations or no)	NO	NO	NO
15A.	FOR SALES INFORMATION, CONTACT:	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)
15B.	FOR TECHNICAL INFORMATION, CONTACT:	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)
16.	SEE APPENDIX IF CHECKED	X	X	X

NA=not applicable

Asphalt Shingles Part 1: General Information

CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	ELK	ELK	ELK	ELK
PRESIDENTIAL SHAKE	FIRESCREEN	PRESTIQUE PLUS 40 HIGH DEFINITION	PRESTIQUE I 35 HIGH DEFINITION	PRESTIQUE 30 HIGH DEFINITION	PRESTIQUE 25 RAISED PROFILE
FIBERGLASS LAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC
	X				
		X	X	X	X
9	3	11/10/10/10 REGIONAL	11/10/10/10 REGIONAL	11/10/10/10 REGIONAL	11/10/10/10 REGIONAL
NATIONAL	REGIONAL	ANTIQUE SLATE	ANTIQUE SLATE	ANTIQUE SLATE	ANTIQUE SLATE
AUGUSTA GREEN	MOIRE BLACK	SHAKEWOOD	SHAKEWOOD	SHAKEWOOD	SHAKEWOOD
AUTUMN BLEND	SLATESTONE	SABLEWOOD	SABLEWOOD	SABLEWOOD	SABLEWOOD
BARK BROWN	WEATHERED WOOD	FOREST GREEN	FOREST GREEN	FOREST GREEN	FOREST GREEN
CHAPARRAL CEDAR		HICKORY, BARKWOOD	HICKORY, BARKWOOD	HICKORY, BARKWOOD	HICKORY, BARKWOOD
CHARCOAL BLACK		BIRCHWOOD, WEDGEWOOD	BIRCHWOOD, WEDGEWOOD	BIRCHWOOD, WEDGEWOOD	BIRCHWOOD, WEDGEWOOD
SHADOW GRAY		SANDALWOOD	SANDALWOOD	SANDALWOOD	SANDALWOOD
SLATE GRAY		ASPEN WHITE	ASPEN WHITE	ASPEN WHITE	ASPEN WHITE
WEATHERED WOOD		WEATHERWOOD	WEATHERWOOD	WEATHERWOOD	WEATHERWOOD
WOOD TONE					
NO	YES	NO	NO	NO	NO
14 1/4 X 10	12 X 36	13 1/4 X 39 3/8	13 1/4 X 39 3/8	13 1/4 X 38 3/4	13 1/4 X 38 3/4
4	5	5 5/8	5 5/8	5 5/8	5 5/8
2	2				
90	80	64	64	66	66
5	3	4	4	3	3
355	195				
REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY
4:12	4:12	4:12	4:12	4:12	4:12
ROOFER'S SELECT	ROOFERS' SELECT	15-LB. FELT	15-LB. FELT	15-LB. FELT	15-LB. FELT
2:12	2:12	2:12	2:12	2:12	2:12
WINTERGUARD	WINTERGUARD	2 15-LB. FELTS	2 15-LB. FELTS	2 15-LB. FELTS	2 15-LB. FELTS
X	X	X	X	X	X
X	X	X	X	X	X
X	X				
		CHIPBOARD	CHIPBOARD	CHIPBOARD	CHIPBOARD
1985	1967	1985	1978	1982	1982
	SHREVEPORT, LA	ENNIS, TX SHAFTER, CA TUSCALOOSA, AL MYERSTOWN, PA	ENNIS, TX SHAFTER, CA TUSCALOOSA, AL MYERSTOWN, PA	ENNIS, TX SHAFTER, CA TUSCALOOSA, AL MYERSTOWN, PA	ENNIS, TX SHAFTER, CA TUSCALOOSA, AL MYERSTOWN, PA
NO	NO	1000+ NO	500+ NO	500+ NO	1000+ NO
LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)	REG. SALES OFFICE (SEE APPENDIX)	REG. SALES OFFICE (SEE APPENDIX)	REG. SALES OFFICE (SEE APPENDIX)	REG. SALES OFFICE (SEE APPENDIX)
800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)	TECHNICAL DEPT. (SEE APPENDIX)	TECHNICAL DEPT. (SEE APPENDIX)	TECHNICAL DEPT. (SEE APPENDIX)	TECHNICAL DEPT. (SEE APPENDIX)
X	X	X	X	X	X

Asphalt Shingles Part 1: General Information

1.	COMPANY NAME	ELK	GAF MATERIALS CORPORATION	GAF MATERIALS CORPORATION
2.	PRODUCT NAME	PRESTIQUE GALLERY COLLECTION	GRAND CANYON	COUNTRY ESTATES
3.	PRODUCT DESCRIPTION			
	Felt Material (organic/fiberglass)	FIBERGLASS	FIBERGLASS	FIBERGLASS
	Construction (laminated/nonlaminated)	LAMINATED	LAMINATED	LAMINATED
	Granule Composition	CERAMIC	GRANULAR	GRANULAR
4.	SHINGLE TYPE			
	Self-Sealing 3-Tab Strip			
	Self-Sealing 4-Tab Strip			
	Self-Sealing Random-Tab Strip	X	X	
	Self-Sealing No Cutout			X
	Individual Interlocking			
5.	COLOR:			
	Number of Colors Available (/ marks number by region)	3/3/3/3/	6	5
	Color Availability (regional/national)	REGIONAL	REGIONAL	NATIONAL
	Colors	BALSAM FOREST WEATHERED SAGE SIENNA SUNSET		
6.	AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO	NO
7.	DIMENSIONS AND COVERAGE			
	Shingle Dimensions (inches x inches)	13 1/4 X 39 3/8	40 X 17	17 X 40
	Exposure (inches)	5 5/8	5	7-1/2
	Headlap (inches)		7	2
	Shingles Per Roof Square	64	72	48
	Bundles Per Square	4	5	6
	Weight Per Roof Square (pounds)			
8.	HIP/RIDGE SHINGLE AVAILABLE (nationally, regionally, no)	REGIONALLY	REGIONALLY	NATIONALLY
9.	SLOPE/UNDERLAYMENT RECOMMENDATIONS			
	Minimum Slope Recommended For Normal Application (inches per foot)	4:12	4:12	4:12
	Underlayment Recommended in Normal Application	15-LB. FELT	SHINGLE MAT OR 15-LB. FELT	SHINGLE MAT OR 15-LB. FELT
	Minimum Slope Recommended For Special Application (inches per foot)	2:12	2:12-4:12	2:12-4:12
	Underlayment Recommended in Special Application	2 15-LB. FELTS	2 SHINGLE MATE OR 2 15-LB. FELTS	2 SHINGLE MATE OR 2 15-LB. FELTS
10.	RECOMMENDED DECK MATERIAL			
	Plywood/Wood	X	X	X
	Oriented-Strand Board	X	X	X
	Waferboard			
	Other (specify)	CHIPBOARD		
11.	YEAR PRODUCT FIRST SOLD	2001	2000	2000
12.	NUMBER OF SQUARES INSTALLED			
13.	MANUFACTURERS PLANT LOCATIONS (CITY, STATE)	ENNIS, TX SHAFTER, CA TUSCALOOSA, AL MYERSTOWN, PA	FONTANA, CA	MT. VENRON, IN
14.	DISTRIBUTION			
	Distributors (number handling product or no)	500+		
	Direct (number of regional service locations or no)	NO		
15A.	FOR SALES INFORMATION, CONTACT:	REG. SALES OFFICE (SEE APPENDIX)	GAF REGIONAL OFFICE	GAF REGIONAL OFFICE
15B.	FOR TECHNICAL INFORMATION, CONTACT:	TECHNICAL DEPT. (SEE APPENDIX)	800/ROOF-411	800/ROOF-411
16.	SEE APPENDIX IF CHECKED	X	X	X

NA=not applicable

Asphalt Shingles Part 1: General Information

GAF MATERIALS CORPORATION	GAF MATERIALS CORPORATION	GAF MATERIALS CORPORATION	GAF MATERIALS CORPORATION	GAF MATERIALS CORPORATION	GAF MATERIALS CORPORATION
JUMBO ROYAL SOVERIGN	GRAND SEQUOIA	MARQUIS WEATHER MAX	ROYAL SOVEREIGN	SENTINEL	SLATELINE
FIBERGLASS LAMINATED GRANULAR	FIBERGLASS LAMINATED CERAMIC COATED	FIBERGLASS NONLAMINATED CERAMIC COATED	FIBERGLASS NONLAMINATED CERAMIC COATED	FIBERGLASS NONLAMINATED CERAMIC COATED	FIBERGLASS NONLAMINATED CERAMIC COATED
X		X	X	X	
	X				X
3 NATIONAL	6 REGIONAL	5/7 REGIONAL	6/11 REGIONAL	6/10 REGIONAL	6 REGIONAL
NO	YES	YES	NO	NO	YES
17 X 40 7-1/2 2 48 3	40 X 17 5 7 72 5	12 X 36 5 2 80 3	12 X 36 5 2 80 3	12 X 36 5 2 80 3	17 X 40 7 1/2 2 48 4
NO	REGIONALLY	NO	NO	NO	REGIONALLY
4:12 SHINGLT MAT OR 15-LB. FELT 2:12-4:12 2 SHINGLE MATE OR 2 15-LB. FELTS	4:12 SHINGLE MATE OR 15-LB. FELT 2:12-4:12 2 SHINGLE MATE OR 2 15-LB. FELTS	4:12 SHINGLE MATE OR 15-LB. FELT 2:12-4:12 2 SHINGLE MATE OR 2 15-LB. FELTS	4:12 SHINGLE MATE OR 15-LB. FELT 2:12-4:12 2 SHINGLE MATE OR 2 15-LB. FELTS	4:12 SHINGLE MATE OR 15-LB. FELT 2:12-4:12 2 SHINGLE MATE OR 2 15-LB. FELTS	4:12 SHINGLE MATE OR 15-LB. FELT 2:12-4:12 2 SHINGLE MATE OR 2 15-LB. FELTS
X X	X X	X X	X X	X X	X X
2001	1996	1991	1984	1980	1988
MT. VERNON, IN MICHIGAN CITY, IN	FONTANA, CA	MINNEAPOLIS, MN MILLIS, MA SAVANNAH, GA	BALTIMORE, MD DALLAS, TX; ERIE, PA FONTANA, CA GOLDSBORO, NC MILLIS, MA MINNEAPOLIS, MN MOBILE, AL MT VERNON, SAVANNAH,GA TAMPA, FL	BALTIMORE, MD DALLAS, TX; ERIE, PA FONTANA, CA GOLDSBORO, NC MILLIS, MA MINNEAPOLIS, MN MOBILE, AL MT VERNON, SAVANNAH,GA TAMPA, FL	MT. VERNON , IN
GAF REGIONAL OFFICE 800/ROOF-411	GAF REGIONAL OFFICE 800/ROOF-411	GAF REGIONAL OFFICE 800/ROOF-411	GAF REGIONAL OFFICE 800/ROOF-411	GAF REGIONAL OFFICE 800/ROOF-411	GAF REGIONAL OFFICE 800/ROOF-411
X	X	X	X	X	X

Asphalt Shingles Part 1: General Information

1.	COMPANY NAME	GAF MATERIALS CORPORATION	GAF MATERIALS CORPORATION	GAF MATERIALS CORPORATION
2.	PRODUCT NAME	ORIGINAL TIMBERLINE	TIMBERLINE COUNTRY MANSION	TIMBERLINE ULTRA
3.	PRODUCT DESCRIPTION			
	Felt Material (organic/fiberglass)	FIBERGLASS	FIBERGLASS	FIBERGLASS
	Construction (laminated/nonlaminated)	LAMINATED	LAMINATED	LAMINATED
	Granule Composition	CERAMIC COATED	CERAMIC COATED	CERAMIC COATED
4.	SHINGLE TYPE			
	Self-Sealing 3-Tab Strip			
	Self-Sealing 4-Tab Strip			
	Self-Sealing Random-Tab Strip			
	Self-Sealing No Cutout	X	X	X
	Individual Interlocking			
5.	COLOR:			
	Number of Colors Available (/ marks number by region)	8/11	5	8/11
	Color Availability (regional/national)	REGIONAL		REGIONAL
	Colors			
6.	AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO	NO
7.	DIMENSIONS AND COVERAGE			
	Shingle Dimensions (inches x inches)	12 X 36	17 X 40	12 X 36
	Exposure (inches)	5	7 1/2	5
	Headlap (inches)	2	2	2
	Shingles Per Roof Square	80	48	80
	Bundles Per Square	4	6	4
	Weight Per Roof Square (pounds)			
8.	HIP/RIDGE SHINGLE AVAILABLE (nationally, regionally, no)	NATIONALLY	NATIONALLY	NATIONALLY
9.	SLOPE/UNDERLAYMENT RECOMMENDATIONS			
	Minimum Slope Recommended For Normal Application (inches per foot)	4:12	4:12	4:12
	Underlayment Recommended in Normal Application	SHINGLE MATE OR 15-LB. FELT	SHINGLE MATE OR 15-LB. FELT	SHINGLE MATE OR 15-LB. FELT
	Minimum Slope Recommended For Special Application (inches per foot)	2:12-4:12	2:12-4:12	2:12-4:12
	Underlayment Recommended in Special Application	2 SHINGLE MATE OR 2 15-LB. FELTS	2 SHINGLE MATE OR 2 15-LB. FELTS	2 SHINGLE MATE OR 2 15-LB. FELTS
10.	RECOMMENDED DECK MATERIAL			
	Plywood/Wood	X	X	X
	Oriented-Strand Board	X	X	X
	Waferboard			
	Other (specify)			
11.	YEAR PRODUCT FIRST SOLD	1980	1998	1990
12.	NUMBER OF SQUARES INSTALLED			
13.	MANUFACTURERS PLANT LOCATIONS (CITY, STATE)	BALTIMORE, MD DALLAS, TX FONTANA, CA GOLDSBORO, NC MINNEAPOLIS, MN MOBILE, AL TAMPA, FL	MT. VERNON, IN	BALTIMORE, MD DALLAS, TX FONTANA, CA GOLDSBORO, NC MILLIS, MA MOBILE, AL TAMPA, FL
14.	DISTRIBUTION			
	Distributors (number handling product or no)			
	Direct (number of regional service locations or no)			
15A.	FOR SALES INFORMATION, CONTACT:	GAF REGIONAL OFFICE	GAF REGIONAL OFFICE	GAF REGIONAL OFFICE
15B.	FOR TECHNICAL INFORMATION, CONTACT:	800/ROOF-411	800/ROOF-411	800/ROOF-411
16.	SEE APPENDIX IF CHECKED	X	X	X

NA=not applicable

Asphalt Shingles Part 1: General Information

GAF MATERIALS CORPORATION	GEORGIA PACIFIC	GEORGIA PACIFIC	GEORGIA PACIFIC	GEORGIA PACIFIC	GEORGIA PACIFIC
TIMBERLINE 25	ASPHALT 20	PREMIUM 25	SUMMIT	SUMMIT III	TOUGH-GLASS
FIBERGLASS LAMINATED CERAMIC COATED	ORGANIC NONLAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC
	X	X			X
X					
8/11 REGIONAL	7 REGIONAL VARIOUS	11 REGIONAL VARIOUS	8 NATIONAL VARIOUS	8 NATIONAL VARIOUS	11 NATIONALLY VARIOUS
NO	YES	YES	NO	NO	YES
12 X 36 15/16 5 2 78 3	12 X 36 5 7 80 3	12 X 36 5 7 80 3	13 1/8 X 38 13.16 5 5/8 7 1/2 66 3	13 1/8 X 38 13.16 5 5/8 7 1/2 66 3	12 X 36 5 7 80 3
NATIONALLY	REGIONALLY	NATIONALLY	NATIONALLY	NATIONALLY	NATIONALLY
4:12 SHINGLE MATE OR 15-LB. FELT 2:12-4:12 2 SHINGLE MATE OR 2 15-LB. FELTS	4:12 TYPE-15 FELT 2:12 2 TYPE-15 FELTS OR ICE & WATER SHIELD OPTION	4:12 TYPE-15 FELT 2:12 2 TYPE-15 FELTS OR ICE & WATER SHIELD OPTION	4:12 TYPE-15 FELT 2:12 2 TYPE-15 FELTS OR ICE & WATER SHIELD OPTION	4:12 TYPE-15 FELT 2:12 2 TYPE-15 FELTS OR ICE & WATER SHIELD OPTION	4:12 TYPE-15 FELT 2:12 2 TYPE-15 FELTS OR ICE & WATER SHIELD OPTION
X X	X X X	X X X	X X X	X X X	X X X
1995	1978	1987	1986	1986	1979
BALTIMORE, MD DALLAS, TX FONTANA, CAL GOLDSBORO, NC MINNEAPOLIS, MN MOBILE, AL TAMPA, FL	ARDMORE, OK QUAKERTOWN, PA	QUAKERTOWN, PA	FRANKLIN, OH DAINGERFIELD, TX MERIDIAN, MS	DAINGERFIELD, TX FRANKLIN, OH	ARDMORE, OK QUAKERTOWN, PA MERIDIAN, MS HAMPTON, GA
	1 65	1 65	1 65	128	128
GAF REGIONAL OFFICE 800/ROOF-411	800/839-2588 770/953-4963	800/839-2588 770/953-4963	800/839-2588 770/953-4963	800/839-2588 770/953-4963	800/839-2588 770/953-4963
X					

Asphalt Shingles Part 1: General Information

1.	COMPANY NAME	GEORGIA PACIFIC	GEORGIA PACIFIC	GEORGIA PACIFIC
2.	PRODUCT NAME	TOUGH-GLASS PLUS	TOUGH-GLASS T-LOCK	SAVANNAH
3.	PRODUCT DESCRIPTION			
	Felt Material (organic/fiberglass)	FIBERGLASS	FIBERGLASS	FIBERGLASS
	Construction (laminated/nonlaminated)	NONLAMINATED	NONLAMINATED	OVERLAY
	Granule Composition	CERAMIC	CERAMIC	CERAMIC
4.	SHINGLE TYPE			
	Self-Sealing 3-Tab Strip	X		
	Self-Sealing 4-Tab Strip			
	Self-Sealing Random-Tab Strip			
	Self-Sealing No Cutout			X
	Individual Interlocking		X	
5.	COLOR:			
	Number of Colors Available (/ marks number by region)	8	2	7
	Color Availability (regional/national)	NATIONALLY	REGIONAL	REGIONAL
	Colors	VARIOUS	VARIOUS	VARIOUS
6.	AVAILABILITY RESTRICTED REGIONALLY (yes/no)	YES	YES	
7.	DIMENSIONS AND COVERAGE			
	Shingle Dimensions (inches x inches)	12 X 36	21 X 21 1/2	37 1/2 X 12
	Exposure (inches)	5	12 X 12	5 11/32 X 15 6/16
	Headlap (inches)	7	NA	
	Shingles Per Roof Square	80	99	72/76
	Bundles Per Square	3	3	3
	Weight Per Roof Square (pounds)			
8.	HIP/RIDGE SHINGLE AVAILABLE (nationally, regionally, no)	NATIONALLY	REGIONALLY	REGIONALLY
9.	SLOPE/UNDERLAYMENT RECOMMENDATIONS			
	Minimum Slope Recommended For Normal Application (inches per foot)	4:12	4:12	4:12
	Underlayment Recommended in Normal Application	TYPE-15 FELT	TYPE-15 FELT	TYPE-15 FELT
	Minimum Slope Recommended For Special Application (inches per foot)	2:12	2:12	2:12
	Underlayment Recommended in Special Application	2 TYPE-15 FELTS OR ICE & WATER SHIELD OPTION	2 TYPE-15 FELTS OR ICE & WATER SHIELD OPTION	2 TYPE-15 FELTS OR ICE & WATER SHIELD OPTION
10.	RECOMMENDED DECK MATERIAL			
	Plywood/Wood	X	X	X
	Oriented-Strand Board	X	X	X
	Waferboard	X	X	X
	Other (specify)			
11.	YEAR PRODUCT FIRST SOLD	1985	1981	1999
12.	NUMBER OF SQUARES INSTALLED			
13.	MANUFACTURERS PLANT LOCATIONS (CITY, STATE)	ARDMORE, OK QUAKERTOWN, PA MERIDIAN, MS HAMPTON, GA	ARDMORE, OK	HAMPTON, GA QUAKERTOWN, PA
14.	DISTRIBUTION			
	Distributors (number handling product or no)			1
	Direct (number of regional service locations or no)	128	128	65
15A.	FOR SALES INFORMATION, CONTACT:	800/839-2588	800/839-2588	800/839-2588
15B.	FOR TECHNICAL INFORMATION, CONTACT:	770/953-4963	770/953-4963	770/953-4963
16.	SEE APPENDIX IF CHECKED			

NA=not applicable

Asphalt Shingles Part 1: General Information

IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.
ARISTOCRAT 25	ARMOUR LOCK 20	ARMOUR PLUS 20	CAMBRIDGE 25	CAMBRIDGE 25 AR	CAMBRIDGE 30
ORGANIC NONLAMINATED CERAMIC	ORGANIC NONLAMINATED CERAMIC	ORGANIC NONLAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC
X		X			
			X	X	X
	X				
13 REGIONAL SEE APPENDIX	7 REGIONAL DUAL BLACK DUAL BROWN DUAL GRAY EARTHTONE CEDAR DRIFTWOOD BLACK LUSTRE FOREST GREEN	6 REGIONAL WHITE DUAL BLACK DUAL BROWN DUAL GRAY EARTHTONE CEDAR WEATHERWOOD	12 NATIONAL SEE APPENDIX	5 REGIONAL DUAL BROWN DUAL GRAY EARTHTONE CEDAR DUAL BLACK HARVARD SLATE	9 NATIONAL DUAL BROWN HARVARD SLATE WEATHERWOOD CHARCOAL GRAY DRIFTWOOD HEATHERWOOD DUAL BLACK NW DRIFTWOOD CASTLE GRAY
YES	YES	YES	NO	YES	YES
13 1/4 X 39 3/8 5 5/8	20 7/8 X 23 7/8 16	13 1/4 X 39 3/8 5 5/8	14 1/4 X 39 3/16 6 1/8	13 7/8 X 40 7/8 5 7/8	13 7/8 X 40 7/8 5 7/8
2	2	2	2	2	2
65	86	65	60	60	56
3	3	3	3	3	4
238	222	213	249	249	70
REGIONALLY	REGIONALLY	REGIONALLY	NATIONALLY	REGIONALLY	NATIONALLY
4:12 NA	4:12 NA	4:12 NA	4:12 NO.-15 FELT (4:12 - 8:12)	4:12 NO.-15 FELT (4:12 - 8:12)	4:12 NO.-15 FELT (4:12 - 8:12)
2:12 2 NO.-15 FELTS OR ICE & WATER PROTECTOR		2:12 2 NO.-15 FELTS OR ICE & WATER PROTECTOR			
X	X	X	X	X	X
X	X	X	X	X	X
1967	1959	1979	1994	2000	1998
NA	NA	NA	NA	NA	NA
A, B, C, D, E, G	B	A, B, C, D,E	B, C, F, H, I	F	B, I
NO	NO	NO	NO	NO	NO
800/323-7171	800/323-7171	800/323-7171	800/323-7171	800/323-7171	800/323-7171
800/323-7171 800/387-2318	800/323-7171 800/387-2318	800/323-7171 800/387-2318	800/323-7171 800/387-2318	800/323-7171 800/387-2318	800/323-7171 800/387-2318
X	X	X	X	X	X

Asphalt Shingles Part 1: General Information

1.	COMPANY NAME	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.
2.	PRODUCT NAME	CAMBRIDGE 40	CAMBRIDGE 40 AR	CHATEAU
3.	PRODUCT DESCRIPTION			
	Felt Material (organic/fiberglass)	FIBERGLASS	FIBERGLASS	ORGANIC
	Construction (laminated/nonlaminated)	LAMINATED	LAMINATED	LAMINATED
	Granule Composition	CERAMIC	CERAMIC	CERAMIC
4.	SHINGLE TYPE			
	Self-Sealing 3-Tab Strip			
	Self-Sealing 4-Tab Strip			
	Self-Sealing Random-Tab Strip			
	Self-Sealing No Cutout	X	X	X
	Individual Interlocking			
5.	COLOR:			
	Number of Colors Available (/ marks number by region)	6	7	8
	Color Availability (regional/national)	NATIONAL	NATIONAL	REGIONAL
	Colors	DUAL BLACK NW DRIFTWOOD HARVARD SLATE AGED REDWOOD WEATHERWOOD CASTLE GRAY	HARVARD SLATE DUAL BLACK WEATHERWOOD DUAL BROWN DRIFTWOOD FOREST GREEN DUAL GRAY	DUAL BLACK DUAL BROWN EARTHTONE CEDAR DRIFTWOOD HARVARD SLATE FOREST GREEN WEATHERWOOD DUAL GRAY
6.	AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO	YES
7.	DIMENSIONS AND COVERAGE			
	Shingle Dimensions (inches x inches)	13 1/2 X 40 1/2	13 7/8 X 40 7/8	14 1/4 X 39 3/16
	Exposure (inches)	5 3/4	5 7/8	6 1/8
	Headlap (inches)	2	2	2
	Shingles Per Roof Square	60	60	60
	Bundles Per Square	3	4	4
	Weight Per Roof Square (pounds)	300	300	300
8.	HIP/RIDGE SHINGLE AVAILABLE (nationally, regionally, no)	NATIONALLY	NATIONALLY	REGIONALLY
9.	SLOPE/UNDERLAYMENT RECOMMENDATIONS			
	Minimum Slope Recommended For Normal Application (inches per foot)	4:12	4:12	4:12
	Underlayment Recommended in Normal Application	NO.-15 FELT (4:12 - 8:12)	NO.-15 FELT (4:12 - 8:12)	NO.-15 FELT (4:12 - 8:12)
	Minimum Slope Recommended For Special Application (inches per foot)			
	Underlayment Recommended in Special Application			
10.	RECOMMENDED DECK MATERIAL			
	Plywood/Wood	X	X	X
	Oriented-Strand Board	X	X	X
	Waferboard			
	Other (specify)			
11.	YEAR PRODUCT FIRST SOLD	1998	2000	1978
12.	NUMBER OF SQUARES INSTALLED	NA	NA	NA
13.	MANUFACTURERS PLANT LOCATIONS (CITY, STATE)	F, I	F	B, C
14.	DISTRIBUTION			
	Distributors (number handling product or no)			
	Direct (number of regional service locations or no)	NO	NO	NO
15A.	FOR SALES INFORMATION, CONTACT:	800/323-7171		800/323-7171
15B.	FOR TECHNICAL INFORMATION, CONTACT:	800/323-7171 800/387-2318	800/323-7171 800/387-2318	800/323-7171 800/387-2318
16.	SEE APPENDIX IF CHECKED	X	X	X

NA=not applicable

Asphalt Shingles Part 1: General Information

IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.
CROWNE 30	DYNASTY	REGENCY	IMPERIAL GENTRY 25	IMPERIAL GENTRY 25 AR	RENAISSANCE XL
ORGANIC NONLAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLAS LAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC	ORGANIC NONLAMINATED CERAMIC
X			X	X	X
	X	X			
4	6	3	14	6	7
REGIONAL DUAL BROWN DUAL GRAY FOREST GREEN WEATHERWOOD	NATIONAL CORNERSTONE AGED REDWOOD CASTLE GRAY EMERALD ANTIQUE BLACK OLD WORLD SLATE	NATIONAL WEATHERWOOD MOUNTAIN GRAY CHALET WOOD	REGIONAL SEE APPENDIX	REGIONAL DUAL BROWN DUAL GRAY EARTHTONE CEDAR WEATHERWOOD DUAL BLACK HARVARD SLATE	REGIONAL BLACK SLATE BLUE SLATE GRAY SLATE HARVEST SLATE TAUPE SLATE REDWOOD SLATE
YES	NO	NO	YES	YES	YES
13 1/4 X 39 3/8 5 5/8 2 65 3 252	13 3/8 X 40 5 3 3/8 72 4 280	13 1/4 X 39 3/8 3 3/4 2 100 5 360	12 1/4 X 36 5 1/8 2 78 3 235	12 1/4 X 36 5 1/8 2 78 3 235	13 1/4 X 39 3/8 5 5/8 2 65 3 248
REGIONALLY	NATIONALLY	NATIONALLY	REGIONALLY	NO	REGIONALLY
4:12 NO.-15 FELT (4:12 - 8:12) 2:12 2 NO. 15 FELTS OR ICE & WATER PROTECTOR	4:12 NO.-15 FELT (4:12 - 8:12) 2:12 2 NO. 15 FELTS OR ICE & WATER PROTECTOR	4:12 NO.-15 FELT (4:12 - 8:12)	4:12 NO.-15 FELT (4:12 - 8:12) 2:12 2 NO.-15 FELTS OR ICE & WATER PROTECTOR	4:12 NO.-15 FELT (4:12 - 8:12) 2:12 2 NO. 15 FELTS OR ICE & WATER PROTECTOR	4:12 NA 2:12 2 NO.-15 FELTS OR ICE & WATER PROTECTOR
X X	X X	X X	X X	X X	X X
1995 NA	1995 NA	2001 NA	1987 NA	2000 NA	1992 NA
E, G	H	E	F, G	F	E
NO 800/323-7171	NO 800/323-7171	NO 800/323-7171	NO 800/323-7171	NO 800/323-7171	NO 800/323-7171
800/323-7171 800/387-2318	800/323-7171 800/387-2318	800/323-7171 800/387-2318	800/323-7171 800/387-2318	800/323-7171 800/387-2318	800/323-7171 800/387-2318
X	X	X	X	X	X

Asphalt Shingles Part 1: General Information

1.	COMPANY NAME	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.
2.	PRODUCT NAME	ROYAL VICTORIAN	SKYLINE 25	ULTRA LOCK 25
3.	PRODUCT DESCRIPTION			
	Felt Material (organic/fiberglass)	ORGANIC	ORGANIC	ORGANIC
	Construction (laminated/nonlaminated)	NONLAMINATED	NONLAMINATED	NONLAMINATED
	Granule Composition	CERAMIC	CERAMIC	CERAMIC
4.	SHINGLE TYPE			
	Self-Sealing 3-Tab Strip			
	Self-Sealing 4-Tab Strip			
	Self-Sealing Random-Tab Strip	X		
	Self-Sealing No Cutout		X	
	Individual Interlocking			X
5.	COLOR:			
	Number of Colors Available (/ marks number by region)	4	6	8
	Color Availability (regional/national)	REGIONAL	REGIONAL	REGIONAL
	Colors	TILE RED DUAL BLACK HARVEST SLATE DRIFTWOOD	DUAL BLACK DUAL BROWN CHARCOAL GRAY DRIFTWOOD EARTHTONE CEDAR FOREST GREEN	WHITE DUAL BLACK DUAL BROWN DUAL GRAY FOREST GREEN DRIFTWOOD WEATHERWOOD EARTHTONE CEDAR
6.	AVAILABILITY RESTRICTED REGIONALLY (yes/no)	YES	YES	YES
7.	DIMENSIONS AND COVERAGE			
	Shingle Dimensions (inches x inches)	13 1/4 X 39 3/8	13 1/4 X 39 3/8	23 7/8 X 20 7/8
	Exposure (inches)	5 5/8	5 5/8	16
	Headlap (inches)	2	2	2
	Shingles Per Roof Square	65	65	86
	Bundles Per Square	3	3	3
	Weight Per Roof Square (pounds)	229	238	235
8.	HIP/RIDGE SHINGLE AVAILABLE (nationally, regionally, no)	REGIONALLY	REGIONALLY	REGIONALLY
9.	SLOPE/UNDERLAYMENT RECOMMENDATIONS			
	Minimum Slope Recommended For Normal Application (inches per foot)	4:12	4:12	4:12
	Underlayment Recommended in Normal Application	NO. 15 FELT	NA	NA
	Minimum Slope Recommended For Special Application (inches per foot)	2:12	2:12	
	Underlayment Recommended in Special Application	2 NO.-15 FELTS OR ICE & WATER PROTECTOR	2 NO.-15 FELTS OR ICE & WATER PROTECTOR	
10.	RECOMMENDED DECK MATERIAL			
	Plywood/Wood	X	X	X
	Oriented-Strand Board	X	X	X
	Waferboard			
	Other (specify)			
11.	YEAR PRODUCT FIRST SOLD	1992	1978	1990
12.	NUMBER OF SQUARES INSTALLED	NA	NA	NA
13.	MANUFACTURERS PLANT LOCATIONS (CITY, STATE)	E	A, B	B
14.	DISTRIBUTION			
	Distributors (number handling product or no)			
	Direct (number of regional service locations or no)	NO	NO	NO
15A.	FOR SALES INFORMATION, CONTACT:	800/323-7171	800/323-7171	800/323-7171
15B.	FOR TECHNICAL INFORMATION, CONTACT:	800/323-7171 800/387-2318	800/323-7171 800/387-2318	800/323-7171 800/387-2318
16.	SEE APPENDIX IF CHECKED	X	X	X

NA=not applicable

Asphalt Shingles Part 1: General Information

IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	MALARKEY ROOFING COMPANY
MARATHON 20	MARATHON 25	MARATHON 30	CATHEDRAL XL	HIP & RIDGE	#202 DURA-SEAL
FIBERGLASS NONLAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC	ORGANIC NONLAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC
X	X	X	XL	X	X
5	13	5	5	11	4
REGIONAL	NATIONAL	REGIONAL	NATIONAL	REGIONAL	NATIONAL
DUAL BLACK NW DRIFTWOOD DUAL BROWN HARVARD SLATE DUAL GRAY	SEE APPENDIX	DUAL BLACK DUAL BROWN DUAL GRAY DRIFTWOOD WEATHERWOOD	BEACHWOOD SHALESTONE WINDSOR SLATE CHESTNUT BLACK GRAYSTONE CHARCOAL SLATE		
YES	NO	YES	NO	YES	NO
13 1/4 X 39 3/8	13 1/4 X 39 3/8	13 1/4 X 39 3/8	13 1/4 X 39 3/8	13 1/4 X 39 3/8	13 1/4 X 39 3/8
5 5/8	5 5/8	5 5/8	5 5/8	5 5/8	5 5/8
2	2	2	2	2	7 5/8
65	65	65	65	NA	66
3	3	3	3	NA	3
207	235	243	238	235	200
REGIONALLY	NATIONALLY	REGIONALLY	NO	REGIONAL	NATIONALLY
4:12	4:12	4:12	4:12	NA	4:12
NO. 15 FELT (4:12 - 8:12)	NO. 15 FELT (4:12 - 8:12)	NO. 15 FELT (4:12 - 8:12)	NO. 15 FELT	NA	15- OR 30-LB. FELT "RIGHT START" UDL
2:12	2:12	2:12	2:12		2:12
2 NO. 15 FELTS OR ICE & WATER PROTECTOR	2 NO. 15 FELTS OR ICE & WATER PROTECTOR	2 NO. 15 FELTS OR ICE & WATER PROTECTOR	2 NO. 15 FELTS OR ICE & WATER PROTECTOR		2 15-LB. FELTS OR 2 RIGHT START UDL
X	X	X		X	X
X	X	X		X	
1999	1993	1999	1998	1998	1977
NA	NA	NA	NA	NA	
I	A, I	A	A	I	PORTLAND, OR
					200+
NO	NO	NO	NO	NO	
800/323-7171	800/323-7171	800/323-7171	800/323-7171	800/323-7171	G. MALARKEY 800/545-1191
800/323-7171 800/387-2318	800/323-7171 800/387-2318	800/323-7171 800/387-2318	800/323-7171 800/387-2318	800/323-7171 800/387-2318	D. DeGROOT J. KOUBA
X	X	X	X	X	

Asphalt Shingles Part 1: General Information

1.	COMPANY NAME	MALARKEY ROOFING COMPANY	MALARKEY ROOFING COMPANY	MALARKEY ROOFING COMPANY
2.	PRODUCT NAME	#204 DURA-SEAL	#230 ALASKAN SBS MODIFIED	#240 HURRICANE SBS MODIFIED ALGAE RESISTANT
3.	PRODUCT DESCRIPTION			
	Felt Material (organic/fiberglass)	FIBERGLASS	POLYGLASS	POLYGLASS
	Construction (laminated/nonlaminated)	NONLAMINATED	NONLAMINATED	NONLAMINATED
	Granule Composition	CERAMIC	CERAMIC	CERAMIC & COPPER
4.	SHINGLE TYPE			
	Self-Sealing 3-Tab Strip	X	X	X
	Self-Sealing 4-Tab Strip			
	Self-Sealing Random-Tab Strip			
	Self-Sealing No Cutout			
	Individual Interlocking			
5.	COLOR:			
	Number of Colors Available (/ marks number by region)	5	8	7
	Color Availability (regional/national)	NATIONAL	NATIONAL	NATIONAL
	Colors			
6.	AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO	NO
7.	DIMENSIONS AND COVERAGE			
	Shingle Dimensions (inches x inches)	13 1/4 X 39 3/8	13 1/4 X 39 3/8	13 1/4 X 39 3/8
	Exposure (inches)	5 5/8	5 5/8	5 5/8
	Headlap (inches)	7 5/8	7 5/8	7 5/8
	Shingles Per Roof Square	66	66	66
	Bundles Per Square	3	3	3
	Weight Per Roof Square (pounds)	235	235	235
8.	HIP/RIDGE SHINGLE AVAILABLE (nationally, regionally, no)	NATIONALLY	NATIONALLY	NATIONALLY
9.	SLOPE/UNDERLAYMENT RECOMMENDATIONS			
	Minimum Slope Recommended For Normal Application (inches per foot)	4:12	4:12	4:12
	Underlayment Recommended in Normal Application	15- OR 30-LB. FELT "RIGHT START" UDL	15- OR 30-LB. FELT "RIGHT START" UDL	15- OR 30-LB. FELT "RIGHT START" UDL
	Minimum Slope Recommended For Special Application (inches per foot)	2:12	2:12	2:12
	Underlayment Recommended in Special Application	2 15-LB. FELTS OR 2 RIGHT START UDL	2 15-LB. FELTS OR 2 RIGHT START UDL	2 15-LB. FELTS OR 2 RIGHT START UDL
10.	RECOMMENDED DECK MATERIAL			
	Plywood/Wood	X	X	X
	Oriented-Strand Board			
	Waferboard			
	Other (specify)			
11.	YEAR PRODUCT FIRST SOLD	1978	1986	1993
12.	NUMBER OF SQUARES INSTALLED			
13.	MANUFACTURERS PLANT LOCATIONS (CITY, STATE)	PORTLAND, OR	PORTLAND, OR	PORTLAND, OR
14.	DISTRIBUTION			
	Distributors (number handling product or no)	200+	200+	200+
	Direct (number of regional service locations or no)			
15A.	FOR SALES INFORMATION, CONTACT:	G. MALARKEY 800/545-1191	G. MALARKEY 800/545-1191	G. MALARKEY 800/545-1191
15B.	FOR TECHNICAL INFORMATION, CONTACT:	D. DeGROOT J. KOUBA	D. DeGROOT J. KOUBA	D. DeGROOT J. KOUBA
16.	SEE APPENDIX IF CHECKED			

NA=not applicable

Asphalt Shingles Part 1: General Information

MALARKEY ROOFING COMPANY	MALARKEY ROOFING COMPANY	MALARKEY ROOFING COMPANY	MALARKEY ROOFING COMPANY	OWENS CORNING	OWENS CORNING
#270 NORTHWEST 30	#271 HIGHLANDER 25	#272 LEGACY SBS MODIFIED	#273 LEGACY SBS MODIFIED ALGAE RESISTANT	OAKRIDGE 40 DEEP SHADOW ARCHITECTURAL	OAKRIDGE 40 AR DEEP SHADOW ARCHITECTURAL
FIBERGLASS LAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	POLYGLASS LAMINATED CERAMIC	POLYGLASS LAMINATED CERAMIC & COPPER	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC
X	X	X	X	X	X
5	6	8	8	9	6
NATIONAL	NATIONAL	NATIONAL	NATIONAL	REGIONAL COLORS VARY BY REGION	REGIONAL COLORS VARY BY REGION
NO	NO	NO	NO	NO	YES
13 1/4 X 40	13 1/4 X 40	13 1/4 X 40	13 1/4 X 40	13 1/4 X 39 3/8	13 1/4 X 39 3/8
5 5/8	5 5/8	5 5/8	5 5/8	5 5/8	5 5/8
7 5/8	7 5/8	7 5/8	7 5/8	7 5/8	7 5/8
64	64	64	64	64	64
4	4	4	4	4	4
260	245	275	275		
NATIONALLY	NATIONALLY	NATIONALLY	NATIONALLY	NATIONALLY	REGIONALLY
4:12	4:12	4:12	4:12	4:12	4:12
15- OR 30-LB. FELT "RIGHT START" UDL	15- OR 30-LB. FELT "RIGHT START" UDL	15- OR 30-LB. FELT "RIGHT START" UDL	15- OR 30-LB. FELT "RIGHT START" UDL	NO. 15 FELT; WEATHER- LOCK OPT AT EAVES	NO. 15 FELT; WEATHER- LOCK OPT AT EAVES
2:12	2:12	2:12	2:12	2:12	2:12
2 15-LB. FELTS OR 2 RIGHT START UDL	2 15-LB. FELTS OR 2 RIGHT START UDL	2 15-LB. FELTS OR 2 RIGHT START UDL	2 15-LB. FELTS OR 2 RIGHT START UDL	2 NO.-15 FELTS AND WEATHERLOCK	2 NO.-15 FELTS AND WEATHERLOCK
X	X	X	X	X	X
1998	1997	1997	1997	1987	1987
				MILLIONS	
PORTLAND, OR	PORTLAND, OR	PORTLAND, OR	PORTLAND, OR	BROOKVILLE, IN COMPTON, CA DENVER, CO HOUSTON, TX KEARNY, NJ MEDINA, OH PORTLAND, OR	HOUSTON, TX MEDINA, OH SAVANNAH, GA
200+	200+	200+	200+		
G. MALARKEY 800/545-1191	G. MALARKEY 800/545-1191	G. MALARKEY 800/545-1191	G. MALARKEY 800/545-1191	800/GET-PINK	800/GET-PINK
D. DeGROOT J. KOUBA	D. DeGROOT J. KOUBA	D. DeGROOT J. KOUBA	D. DeGROOT J. KOUBA	800/GET-PINK	800/GET-PINK
				X	X

Asphalt Shingles Part 1: General Information

1.	COMPANY NAME	OWENS CORNING	OWENS CORNING	OWENS CORNING
2.	PRODUCT NAME	OAKRIDGE 30 SHADOW ARCHITECTURAL	OAKRIDGE 30 AR SHADOW ARCHITECTURAL	OAKRIDGE 25 ARCHITECTURAL
3.	PRODUCT DESCRIPTION			
	Felt Material (organic/fiberglass)	FIBERGLASS	FIBERGLASS	FIBERGLASS
	Construction (laminated/nonlaminated)	LAMINATED	LAMINATED	LAMINATED
	Granule Composition	CERAMIC	CERAMIC	CERAMIC
4.	SHINGLE TYPE			
	Self-Sealing 3-Tab Strip			
	Self-Sealing 4-Tab Strip			
	Self-Sealing Random-Tab Strip	X	X	X
	Self-Sealing No Cutout			
	Individual Interlocking			
5.	COLOR:			
	Number of Colors Available (/ marks number by region)	10	6	10
	Color Availability (regional/national)	REGIONAL	REGIONAL	REGIONAL
	Colors	COLORS VARY BY REGION	COLORS VARY BY REGION	COLORS VARY BY REGION
6.	AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	YES	NO
7.	DIMENSIONS AND COVERAGE			
	Shingle Dimensions (inches x inches)	13 1/4 X 39 3/8	13 1/4 X 39 3/8	13 1/4 X 38 3/4
	Exposure (inches)	5 5/8	5 5/8	5 5/8
	Headlap (inches)	7 5/8	7 5/8	7 5/8
	Shingles Per Roof Square	64	64	66
	Bundles Per Square	4	4	3
	Weight Per Roof Square (pounds)			
8.	HIP/RIDGE SHINGLE AVAILABLE (nationally, regionally, no)	NATIONALLY	REGIONALLY	NATIONALLY
9.	SLOPE/UNDERLAYMENT RECOMMENDATIONS			
	Minimum Slope Recommended For Normal Application (inches per foot)	4:12	4:12	4:12
	Underlayment Recommended in Normal Application	NO. 15 FELT; WEATHER-LOCK OPT AT EAVES	NO. 15 FELT; WEATHER-LOCK OPT AT EAVES	NO. 15 FELT; WEATHER-LOCK OPT AT EAVES
	Minimum Slope Recommended For Special Application (inches per foot)	2:12	2:12	2:12
	Underlayment Recommended in Special Application	2 NO.-15 FELTS AND WEATHERLOCK	2 NO.-15 FELTS AND WEATHERLOCK	2 NO.-15 FELTS AND WEATHERLOCK
10.	RECOMMENDED DECK MATERIAL			
	Plywood/Wood	X	X	X
	Oriented-Strand Board			
	Waferboard			
	Other (specify)			
11.	YEAR PRODUCT FIRST SOLD	1987	1987	1987
12.	NUMBER OF SQUARES INSTALLED	MILLIONS		MILLIONS
13.	MANUFACTURERS PLANT LOCATIONS (CITY, STATE)	BROOKVILLE, IN COMPTON, CA DENVER, CO HOUSTON, TX IRVING, TX KEARNY, NJ MEDINA, OH PORTLAND, OR	BROOKVILLE, IN HOUSTON, TX SAVANNAH, GA	BROOKVILLE, IN COMPTON, CA DENVER, CO HOUSTON, TX IRVING, TX KEARNY, NJ MEDINA, OH PORTLAND, OR
14.	DISTRIBUTION			
	Distributors (number handling product or no)			
	Direct (number of regional service locations or no)			
15A.	FOR SALES INFORMATION, CONTACT:	800/GET-PINK	800/GET-PINK	800/GET-PINK
15B.	FOR TECHNICAL INFORMATION, CONTACT:	800/GET-PINK	800/GET-PINK	800/GET-PINK
16.	SEE APPENDIX IF CHECKED	X	X	X

NA=not applicable

Asphalt Shingles Part 1: General Information

OWENS CORNING	OWENS CORNING	OWENS CORNING	OWENS CORNING	OWENS CORNING	OWENS CORNING
OAKRIDGE 25 AR ARCHITECTURAL	WEATHERGUARD 40 HIGHTWIND 110 PERFORMANCE	WEATHERGUARD 40 AR HIGH WIND 110 PERFORMANCE	WEATHERGUARD 30 AR HIGHTWIND 110 PERFORMANCE	PROMINENCE 30 YEAR PERFORMANCE	PROMINENCE AR 30 YEAR PERFORMANCE
FIBERGLASS LAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC
				X	X
X	X	X	X		
7 REGIONAL	REGIONAL COLORS VARY BE REGION	REGIONALLY COLORS VARY BE REGION	REGIONALLY COLORS VARY BY REGION	12 REGIONAL COLORS VARY BY REGION	8 REGIONAL COLORS VARY BY REGION
YES	YES	YES	YES	NO	YES
13 1/4 X 38 3/4	13 1/4 X 39 3/8	13 1/4 X 39 3/8	13 1/4 X 39 3/8	12 X 36	12 X 36
5 5/8	5 5/8	5 5/8	5 5/8	5	5
7 5/8	7 5/8	7 5/8	7 5/8	7	7
66	64	64	64	80	80
3	4	4	4	3	3
REGIONALLY	NATIONALLY	REGIONALLY	REGIONALLY	NO	
4:12	4:12	4:12	4:12	4:12	4:12
NO. 15 FELT; WEATHER-LOCK OPT AT EAVES	NO. 15 FELT; WEATHER-LOCK OPT AT EAVES	NO. 15 FELT; WEATHER-LOCK OPT AT EAVES	NO 15 FELT; WEATHER-LOCK OPT AT EAVES	NO 15 FELT; WEATHER-LOCK OPT AT EAVES	NO. 15 FELT; WEATHER-LOCK OPT AT EAVES
2:12	2:12	2:12	2:12	2:12	2:12
2 NO.-15 FELTS AND WEATHERLOCK	2 NO.-15 FELTS AND WEATHERLOCK	2 NO.-15 FELTS AND WEATHERLOCK	2 NO.-15 FELTS AND WEATHERLOCK	2 NO.-15 FELTS AND WEATHERLOCK	2 NO.-15 FELTS AND WEATHERLOCK
X	X	X	X	X	X
1987	2000	2000	2000	1995	1995
				MILLIONS	
BROOKVILLE, IN HOUSTON, TX PORTLAND, OR SAVANNAH, GA	DENVER, CO	HOUSTON, TX SAVANNAH, GA	PORTLAND, OR	MEDINA, OH MINNEAPOLIS, MN	ATLANTA, GA
800/GET-PINK	800/GET-PINK	800/GET-PINK	800/GET-PINK	800/GET-PINK	800/GET-PINK
800/GET-PINK	800/GET-PINK	800/GET-PINK	800/GET-PINK	800/GET-PINK	800/GET-PINK
X	X	X	X	X	X

Asphalt Shingles Part 1: General Information

1.	COMPANY NAME	OWENS CORNING	OWENS CORNING	OWENS CORNING
2.	PRODUCT NAME	SUPREME 25 YEAR TRADITIONAL	SUPREME AR 25 YEAR TRADITIONAL	SUPREME (METRIC) 25 YEAR TRADITIONAL
3.	PRODUCT DESCRIPTION			
	Felt Material (organic/fiberglass)	FIBERGLASS	FIBERGLASS	FIBERGLASS
	Construction (laminated/nonlaminated)	NONLAMINATED	NONLAMINATED	NONLAMINATED
	Granule Composition	CERAMIC	CERAMIC	CERAMIC
4.	SHINGLE TYPE			
	Self-Sealing 3-Tab Strip	X	X	X
	Self-Sealing 4-Tab Strip			
	Self-Sealing Random-Tab Strip			
	Self-Sealing No Cutout			
	Individual Interlocking			
5.	COLOR:			
	Number of Colors Available (/ marks number by region)	29	9	10
	Color Availability (regional/national)	REGIONAL	REGIONAL	REGIONAL
	Colors	COLORS VARY BY REGION	COLORS VARY BY REGION	COLORS VARY BY REGION
6.	AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	YES	YES
7.	DIMENSIONS AND COVERAGE			
	Shingle Dimensions (inches x inches)	12 X 36	12 X 36	13 1/4 X 39 3/8
	Exposure (inches)	5	5	5 5/8
	Headlap (inches)	7	7	7 5/8
	Shingles Per Roof Square	80	80	65
	Bundles Per Square	3	3	3
	Weight Per Roof Square (pounds)			
8.	HIP/RIDGE SHINGLE AVAILABLE (nationally, regionally, no)	NO	NO	REGIONALLY
9.	SLOPE/UNDERLAYMENT RECOMMENDATIONS			
	Minimum Slope Recommended For Normal Application (inches per foot)	4:12	4:12	4:12
	Underlayment Recommended in Normal Application	NO. 15 FELT; WEATHER-LOCK OPT AT EAVES	NO 15 FELT; WEATHER-LOCK OPT AT EAVES	NO. 15 FELT; WEATHER-LOCK OPT AT EAVES
	Minimum Slope Recommended For Special Application (inches per foot)	2:12	2:12	2:12
	Underlayment Recommended in Special Application	2 NO.-15 FELTS AND WEATHERLOCK	2 NO.-15 FELTS AND WEATHERLOCK	2 NO.-15 FELTS AND WEATHERLOCK
10.	RECOMMENDED DECK MATERIAL			
	Plywood/Wood	X	X	X
	Oriented-Strand Board			
	Waferboard			
	Other (specify)			
11.	YEAR PRODUCT FIRST SOLD	1978	1986	1986
12.	NUMBER OF SQUARES INSTALLED	MILLIONS		MILLIONS
13.	MANUFACTURERS PLANT LOCATIONS (CITY, STATE)	BROOKVILLE, IN COMPTON, CA DENVER, CO IRVING, TX JESSUP, MD KEARNY, NJ MEDINA, OH MEMPHIS, TN MINNEAPOLIS, MN SUMMIT, IL	ATLANTA, GA BROOKVILLE, IN JACKSONVILLE, FL JESSUP, MD MEMPHIS, TN PORTLAND, OR	COMPTON, CA PORTLAND, OR
14.	DISTRIBUTION			
	Distributors (number handling product or no)			
	Direct (number of regional service locations or no)			
15A.	FOR SALES INFORMATION, CONTACT:	800/GET-PINK	800/GET-PINK	800/GET-PINK
15B.	FOR TECHNICAL INFORMATION, CONTACT:	800/GET-PINK	800/GET-PINK	800/GET-PINK
16.	SEE APPENDIX IF CHECKED	X	X	X

NA=not applicable

Asphalt Shingles Part 1: General Information

OWENS CORNING	OWENS CORNING	OWENS CORNING	OWENS CORNING	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS
CLASSIC 20 YEAR TRADITIONAL	CLASSIC AR 20 YEAR TRADITIONAL	CLASSIC (METRIC) 20 YEAR TRADITIONAL	GLASLOCK 25 YEAR INTERLOCKING	PREMIER ADVANTAGE	PABCO PREMIER 25 ASTM ALGAE BLOCK
FIBERGLASS NONLAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC
X	X	X			
				X	X
			X		
29 REGIONAL COLORS VARY BY REGION	8 REGIONAL COLORS VARY BY REGION	11 REGIONAL COLORS VARY BY REGION	8 REGIONAL COLORS VARY BY REGION	5 REGIONAL	5 REGIONAL
NO	YES	YES	YES	NO	NO
12 X 36	12 X 36	13 1/4 X 39 3/8	21 1/16 X 21 9/16	13 1/4 X 40	13 1/4 X 40
5	5	5 5/8		5 5/8	5 5/8
7	7	7 5/8		7 5/8	7 5/8
80	80	65	96	64	64
3	3	3	3	5 1/3	4
				400	265
NO	NO	REGIONALLY	NO	REGIONALLY	REGIONALLY
4:12	4:12	4:12	4:12	4:12	4:12
NO. 15 FELT; WEATHER-LOCK OPT AT EAVES	NO. 15 FELT; WEATHER-LOCK OPT AT EAVES	NO. 15 FELT; WEATHER-LOCK OPT AT EAVES	NO. 15 FELT; WEATHER-LOCK OPT AT EAVES	15-LB. FELT	15-LB. FELT
2:12	2:12	2:12	4:12	2:12	2:12
2 NO.-15 FELTS AND WEATHERLOCK	2 NO.-15 FELTS AND WEATHERLOCK	2 NO.-15 FELTS AND WEATHERLOCK	2 NO.-15 FELTS AND WEATHERLOCK	2 15-LB. FELTS	2 15-LB. FELTS
X	X	X	X	X	X
				X	X
				X	X
1959	1986	1987	1977	1999	1995
MILLIONS		MILLIONS	MILLIONS	10,000	500,000
ATLANTA, GA BROOKVILLE, IN COMPTON, CA DENVER, CO IRVING, TX JACKSONVILLE, FL JESSUP, MD; MEDINA, OH MINNEAPOLIS, MN SUMMIT, IL MEMPHIS, TN	JACKSONVILLE, FL	COMPTON, CA PORTLAND, OR	DENVER, CO	TACOMA, WA	TACOMA, WA
				100	100
				NO	NO
800/GET-PINK	800/GET-PINK	800/GET-PINK	800/GET-PINK	R. VANDENBERG 253/272-0374	R. VANDENBERG 253/272-0374
800/GET-PINK	800/GET-PINK	800/GET-PINK	800/GET-PINK	S. DINWIDDIE 859/858-4366	S. DINWIDDIE 859/858-4366
X	X	X	X		

Asphalt Shingles Part 1: General Information

1.	COMPANY NAME	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS
2.	PRODUCT NAME	PABCO PREMIER 30 ALGAE BLOCK	PABCO PREMIER 25 ASTM	PABCO PREMIER 30 YEAR
3.	PRODUCT DESCRIPTION			
	Felt Material (organic/fiberglass)	FIBERGLASS	FIBERGLASS	FIBERGLASS
	Construction (laminated/nonlaminated)	LAMINATED	LAMINATED	LAMINATED
	Granule Composition	CERAMIC	CERAMIC	CERAMIC
4.	SHINGLE TYPE			
	Self-Sealing 3-Tab Strip			
	Self-Sealing 4-Tab Strip			
	Self-Sealing Random-Tab Strip			
	Self-Sealing No Cutout	X	X	X
	Individual Interlocking			
5.	COLOR			
	Number of Colors Available (/ marks number by region)	5	10	10
	Color Availability (regional/national)	REGIONAL	REGIONAL	REGIONAL
	Colors			
6.	AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO	NO
7.	DIMENSIONS AND COVERAGE: SIZE 1			
	Shingle Dimensions (inches x inches)	13 1/4 X 40	13 1/4 X 40	13 1/4 X 40
	Exposure (inches)	5 5/8	5 5/8	5 5/8
	Headlap (inches)	7 5/8	7 5/8	7 5/8
	Shingles Per Roof Square	64	64	64
	Bundles Per Square	4	4	4
	Weight Per Roof Square (pounds)	290	265	290
8.	HIP/RIDGE SHINGLE AVAILABLE (nationally, regionally, no)	REGIONALLY	REGIONALLY	REGIONALLY
9.	SLOPE/UNDERLAYMENT RECOMMENDATIONS			
	Minimum Slope Recommended For Normal Application (inches per foot)	4:12	4:12	4:12
	Underlayment Recommended in Normal Application	15-LB. FELT	15-LB. FELT	15-LB. FELT
	Minimum Slope Recommended For Special Application (inches per foot)	2:12	2:12	2:12
	Underlayment Recommended in Special Application	2 15-LB. FELTS	2 15-LB. FELTS	2 15-LB. FELTS
10.	RECOMMENDED DECK MATERIAL			
	Plywood/Wood	X	X	X
	Oriented-Strand Board	X	X	X
	Waferboard	X	X	X
	Other (specify)			
11.	YEAR PRODUCT FIRST SOLD	1997	1991	1991
12.	NUMBER OF SQUARES INSTALLED	500,000	7 MILLION	2 MILLION
13.	MANUFACTURERS PLANT LOCATIONS (CITY, STATE)	TACOMA, WA	TACOMA, WA	TACOMA, WA
14.	DISTRIBUTION			
	Distributors (number handling product or no)	100	100	100
	Direct (number of regional service locations or no)	NO	NO	NO
15A.	FOR SALES INFORMATION, CONTACT:	R. VANDENBERG 253/272-0374	R. VANDENBERG 253/272-0374	R. VANDENBERG 253/272-0374
15B.	FOR TECHNICAL INFORMATION, CONTACT:	S. DINWIDDIE 859/858-4366	S. DINWIDDIE 859/858-4366	S. DINWIDDIE 859/858-4366
16.	SEE APPENDIX IF CHECKED			

NA=not applicable

Asphalt Shingles Part 1: General Information

PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS
PABCO PREMIER 40 YEAR	PABCO SG-25	PABCO GG-20	PRECISE	SHADOW CAP 4 HIP & RIDGE	GLASS-SEAL
FIBERGLASS LAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS NON-LAMINATED CERAMIC	FIBERGLASS NONLAMINATED CERAMIC
	X	X			X
X			X	X	
10 REGIONAL	11 REGIONAL	8 REGIONAL	3 REGIONAL NIGHT SHADE SMOKE PONDEROSA	11 REGIONAL ANTIQUE BLACK BLUE SLATE, BUCKSKIN DRIFTWOOD, HARVEST BROWN, PEWTER GRAY PRAIRIE WOOD, SHERWOOD GREEN, SMOKE, WEATHERED WHITE WEATHERED WOOD	16 REGIONAL
NO	NO	NO	NO	NO	NO
13 1/4 X 40	13 1/4 X 39 3/8	13 1/4 X 39 3/8	13 1/4 X 40	13 1/4 X 9 7/8	12 X 36
5 5/8	5 5/8	5 5/8	5 5/8	5 5/8	5
7 5/8	7 5/8	7 5/8	7 5/8	7 5/8	2
64	65	65	64		80
4	3	3	4		3
320	230	205	290		
REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY	NO	REGIONALLY
4:12 15-LB. FELT	4:12 15-LB. FELT	4:12 15-LB. FELT	4:12 15-LB. FELT		4:12 NO. 15 FELT
2:12 2 15-LB. FELTS	2:12 2 15-LB. FELTS	2:12 2 15-LB. FELTS	2:12 2 15-LB. FELTS		2:12 2 NO.-15 FELTS, MOISTURE GUARD PLUS OPTIONAL
X	X	X	X	X	X
X	X	X	X	X	
X	X	X	X	X	
1991	1984	1984	2001	1997	1979
1.5 MILLION TACOMA, WA	6 MILLION TACOMA, WA	6 MILLION TACOMA, WA	NEW TACOMA, WA	TACOMA, WA	JOPLIN, MO TUSCALOOSA, AL FREDERICK, MD PHILLIPSBURG, KS
100 NO	100 NO	100 NO	100 NO	100 NO	>6,000 NO
R. VANDENBERG 253/272-0374 S. DINWIDDIE 859/858-4366	R. VANDENBERG 253/272-0374 S. DINWIDDIE 859/858-4366	R. VANDENBERG 253/272-0374 S. DINWIDDIE 859/858-4366	R. VANDENBERG 253/272-0374 S. DINWIDDIE 859/858-4366	R. VANDENBERG 253/272-0374 S. DINWIDDIE 859/858-4366	DISTRICT OFFICE TECHNICAL SERVICE 417/624-6644

Asphalt Shingles Part 1: General Information

1.	COMPANY NAME	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS
2.	PRODUCT NAME	GLASS-SEAL AR	ELITE GLASS SEAL	ELITE GLASS SEAL AR
3.	PRODUCT DESCRIPTION			
	Felt Material (organic/fiberglass)	FIBERGLASS	FIBERGLASS	FIBERGLASS
	Construction (laminated/nonlaminated)	NONLAMINATED	NONLAMINATED	NONLAMINATED
	Granule Composition	COPPER/CERAMIC	CERAMIC	COPPER/CERAMIC
4.	SHINGLE TYPE			
	Self-Sealing 3-Tab Strip	X	X	X
	Self-Sealing 4-Tab Strip			
	Self-Sealing Random-Tab Strip			
	Self-Sealing No Cutout			
	Individual Interlocking			
5.	COLOR			
	Number of Colors Available (/ marks number by region)	5	17	16
	Color Availability (regional/national)	REGIONAL	REGIONAL	REGIONAL
	Colors			
6.	AVAILABILITY RESTRICTED REGIONALLY (yes/no)	YES	NO	YES
7.	DIMENSIONS AND COVERAGE: SIZE 1			
	Shingle Dimensions (inches x inches)	12 X 36	12 X 36	12 X 36
	Exposure (inches)	5	5	5
	Headlap (inches)	2	2	2
	Shingles Per Roof Square	80	80	80
	Bundles Per Square	3	3	3
	Weight Per Roof Square (pounds)			
8.	HIP/RIDGE SHINGLE AVAILABLE (nationally, regionally, no)	NO	REGIONALLY	NO
9.	SLOPE/UNDERLAYMENT RECOMMENDATIONS			
	Minimum Slope Recommended For Normal Application (inches per foot)	4:12	4:12	4:12
	Underlayment Recommended in Normal Application	NO. 15 FELT	NO. 15 FELT	NO. 15 FELT
	Minimum Slope Recommended For Special Application (inches per foot)	2:12	2:12	2:12
	Underlayment Recommended in Special Application	2 NO.-15 FELTS, MOISTURE GUARD PLUS OPTIONAL	2 NO.-15 FELTS, MOISTURE GUARD PLUS OPTIONAL	2 NO.-15 FELTS, MOISTURE GUARD PLUS OPTIONAL
10.	RECOMMENDED DECK MATERIAL			
	Plywood/Wood	X	X	X
	Oriented-Strand Board			
	Waferboard			
	Other (specify)			
11.	YEAR PRODUCT FIRST SOLD	1983	1984	1985
12.	NUMBER OF SQUARES INSTALLED			
13.	MANUFACTURERS PLANT LOCATIONS (CITY, STATE)	TUSCALOOSA, AL	JOPLIN, MO TUSCALOOSA, AL PHILLIPSBURG, KS	TUSCALOOSA, AL FREDERICK, MD
14.	DISTRIBUTION			
	Distributors (number handling product or no)	>2,000	>6,000	>2,000
	Direct (number of regional service locations or no)	NO	NO	NO
15A.	FOR SALES INFORMATION, CONTACT:	DISTRICT OFFICE	DISTRICT OFFICE	DISTRICT OFFICE
15B.	FOR TECHNICAL INFORMATION, CONTACT:	TECHNICAL SERVICE 417/624-6644	TECHNICAL SERVICE 417/624-6644	TECHNICAL SERVICE 417/624-6644
16.	SEE APPENDIX IF CHECKED			

NA=not applicable

Asphalt Shingles Part 1: General Information

TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS
TAM-LOC GLASS	HERITAGE 25	HERITAGE 25 AR	HERITAGE 30	HERITAGE 30 AR	HERITAGE 40
FIBERGLASS NONLAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS LAMINATED COPPER/CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS LAMINATED COPPER/CERAMIC	FIBERGLASS LAMINATED CERAMIC
	X	X	X	X	X
X					
13 REGIONAL	18 NATIONAL	6 REGIONAL	15 NATIONAL	7 REGIONAL	15 NATIONAL
YES	NO	YES	NO	YES	NO
20 X 21 1/2	12 X 36 15/16	12 X 36 15/16	12 X 36	12 X 36	12 X 36
	5	5	5	5	5
	2	2	2	2	2
99	78	78	80	80	80
3	3	3	4	4	4
REGIONALLY	REGIONALLY	NO	REGIONALLY	NO	REGIONALLY
4:12 NO. 15 FELT	4:12 NO. 15 FELT	4:12 NO. 15 FELT	4:12 NO. 15 FELT	4:12 NO. 15 FELT	4:12 NO. 15 FELT
	2:12	2:12	2:12	2:12	2:12
	2 NO.-15 FELTS, MOISTURE GUARD PLUS OPTIONAL	2 NO.-15 FELTS, MOISTURE GUARD PLUS OPTIONAL	2 NO.-15 FELTS, MOISTURE GUARD PLUS OPTIONAL	2 NO.-15 FELTS, MOISTURE GUARD PLUS OPTIONAL	2 NO.-15 FELTS, MOISTURE GUARD PLUS OPTIONAL
X	X	X	X	X	X
1984	1985	1992	1989	1992	1992
PHILLIPSBURG, KS	DALLAS, TX JOPLIN, MO FREDERICK, MD PHILLIPSBURG, KS	TUSCALOOSA, AL	DALLAS, TX FREDERICK, MD PHILLIPSBURG, KS	TUSCALOOSA, AL	DALLAS, TX PHILLIPSBURG, KS
>3,000 NO	>6,000 NO	>2,000 NO	>6,000 NO	>2,000 NO	3,000 NO
DISTRICT OFFICE	DISTRICT OFFICE	DISTRICT OFFICE	DISTRICT OFFICE	DISTRICT OFFICE	DISTRICT OFFICE
TECHNICAL SERVICE 417/624-6644	TECHNICAL SERVICE 417/624-6644	TECHNICAL SERVICE 417/624-6644	TECHNICAL SERVICE 417/624-6644	TECHNICAL SERVICE 417/624-6644	TECHNICAL SERVICE 417/624-6644

Asphalt Shingles Part 1: General Information

1.	COMPANY NAME	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS
2.	PRODUCT NAME	HERITAGE 40 AR	HERITAGE M25	HERITAGE M30
3.	PRODUCT DESCRIPTION			
	Felt Material (organic/fiberglass)	FIBERGLASS	FIBERGLASS	FIBERGLASS
	Construction (laminated/nonlaminated)	LAMINATED	LAMINATED	LAMINATED
	Granule Composition	COPPER/CERAMIC	CERAMIC	CERAMIC
4.	SHINGLE TYPE			
	Self-Sealing 3-Tab Strip			
	Self-Sealing 4-Tab Strip			
	Self-Sealing Random-Tab Strip	X	X	X
	Self-Sealing No Cutout			
	Individual Interlocking			
5.	COLOR			
	Number of Colors Available (/ marks number by region)	7/14	12	11
	Color Availability (regional/national)	REGIONAL	REGIONAL	REGIONAL
	Colors			
6.	AVAILABILITY RESTRICTED REGIONALLY (yes/no)	YES	YES	YES
7.	DIMENSIONS AND COVERAGE: SIZE 1			
	Shingle Dimensions (inches x inches)	12 X 36	38 3/4 X 13 1/4	39 3/8 X 13 1/4
	Exposure (inches)	5	5 5/8	5 5/8
	Headlap (inches)	2	2 1/4	2 1/4
	Shingles Per Roof Square	80	66	64
	Bundles Per Square	4	3	4
	Weight Per Roof Square (pounds)			
8.	HIP/RIDGE SHINGLE AVAILABLE (nationally, regionally, no)	REGIONALLY	REGIONALLY	REGIONALLY
9.	SLOPE/UNDERLAYMENT RECOMMENDATIONS			
	Minimum Slope Recommended For Normal Application (inches per foot)	4:12	4:12	4:12
	Underlayment Recommended in Normal Application	NO. 15 FELT	NO. 15 FELT	NO. 15 FELT
	Minimum Slope Recommended For Special Application (inches per foot)	2:12	2:12	2:12
	Underlayment Recommended in Special Application	2 NO.-15 FELTS, MOISTURE GUARD PLUS OPTIONAL	2 NO.-15 FELTS, MOISTURE GUARD PLUS OPTIONAL	2 NO.-15 FELTS, MOISTURE GUARD PLUS OPTIONAL
10.	RECOMMENDED DECK MATERIAL			
	Plywood/Wood	X	X	X
	Oriented-Strand Board			
	Waferboard			
	Other (specify)			
11.	YEAR PRODUCT FIRST SOLD	1988	1995	1995
12.	NUMBER OF SQUARES INSTALLED			
13.	MANUFACTURERS PLANT LOCATIONS (CITY, STATE)	TUSCALOOSA, AL FREDERICK, MD	DALLAS, TX	DALLAS, TX
14.	DISTRIBUTION			
	Distributors (number handling product or no)	3,000	700	400
	Direct (number of regional service locations or no)	NO	NO	NO
15A.	FOR SALES INFORMATION, CONTACT:	DISTRICT OFFICE	DISTRICT OFFICE	DISTRICT OFFICE
15B.	FOR TECHNICAL INFORMATION, CONTACT:	TECHNICAL SERVICE 417/624-6644	TECHNICAL SERVICE 417/624-6644	TECHNICAL SERVICE 417/624-6644
16.	SEE APPENDIX IF CHECKED			

NA=not applicable

Asphalt Shingles Part 1: General Information

TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS
HERITAGE M40	RELIANCE 25	HERITAGE WINDFIGHTER	ASTM AR HERITAGE 25	HERITAGE STORMFIGHTER AR
FIBERGLASS LAMINATED CERAMIC	ORGANIC NONLAMINATED CERAMIC	FIBERGLASS LAMINATED CERAMIC	FIBERGLASS LAMINATED COPPER/CERAMIC	FIBERGLASS LAMINATED COPPER/CERAMIC
	X			
X		X	X	X
11 REGIONAL	12 REGIONAL	4 REGIONAL	10/14 REGIONAL	4 REGIONAL
YES	YES	YES	YES	YES
39 3/8 X 13 1/4	12 X 36	12 X 36	12 X 36 15/16	12 X 36
5 5/8	5	5	5	5
2 1/4	2	2	2	2
64	80	80	78	80
4	3	4	3	4
REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY
4:12 NO. 15 FELT	4:12 NO. 15 FELT	4:12 NO. 15 FELT	4:12 NO. 15 FELT	4:12 NO. 15 FELT
2:12 2 NO.-15 FELTS, MOISTURE GUARD PLUS OPTIONAL	2:12 2 NO.-15 FELTS, MOISTURE GUARD PLUS OPTIONAL	2:12 2 NO.-15 FELTS, MOISTURE GUARD PLUS OPTIONAL	2:12 2 NO. 15 FELTS, MOISTURE GUARD PLUS OPTIONAL	2:12 2 NO. 15 FELTS, MOISTURE GUARD PLUS OPTIONAL
X	X	X	X	X
1995	1998	1999	1998	1998
DALLAS, TX	PHILLIPSBURG, KS	PHILLIPSBURG, KS	TUSCALOOSA, AL FREDERICK, MD	TUSCALOOSA, AL
400 NO	>6,000 NO	50 NO	100 NO	100 NO
DISTRICT OFFICE	DISTRICT OFFICE	DISTRICT OFFICE	DISTRICT OFFICE	DISTRICT OFFICE
TECHNICAL SERVICE 417/624-6644	TECHNICAL SERVICE 417/624-6644	TECHNICAL SERVICE 417/624-6644	TECHNICAL SERVICE 417/624-6644	TECHNICAL SERVICE 417/624-6644

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	ATLAS ROOFING CORPORATION	
2. PRODUCT NAME	PINNACLE 40	
3. PRODUCT DESCRIPTION Reinforcing (organic/fiberglass/polyglass)	FIBERGLASS	
4. COMPLIES WITH:		
4A. ASTM D 225-00 <i>Standard Specification for Asphalt Shingles (Organic Felt) Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Uniform or nonuniform thickness shingles of any style		
Type II -- Thick butt, square tab, strip shingles		
Type III -- Uniform or nonuniform thickness shingles of any style		
4B. ASTM D 3018-00 <i>Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Self-sealing	X	
Type II -- Non-self-sealing		
4C. ASTM D 3462-00 <i>Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules</i> (YES/NO/NA)	YES	
5A. MASSES OF ASPHALT SHINGLES: ORGANIC SHINGLES		
Average net mass per unit area, min, lb/100 ft ²	Type I: 95.0; Type II: 95.0; Type III: 89.7	
Net mass of weather-exposed portion (ea. bundle) min, lb/100 ft ²	Type I: 91.0; Type II: 110.0; Type III: 85.7	
Net mass of upper portion (ea bundle), min, lb/100 ft ²	Type I: NA; Type II: 72.0; Type III: NA	
Mass of desaturated, moisture-free felt, min, lb/100 ft ²	Type I: 11.0; Type II: 11.0; Type III: 9.0	
Mass of asphalt saturant based on the mass of the dry felt, min %	165	
Mass of weather-side coating on the weather-exposed portion, min, lb/100 ft ²	Type I: 23.0; Type II: 30.0; Type III: 23.0	
Mass of weather-side coating on the upper portion, min lb/100ft ²	Type I: 23.0; Type II: 15.0; Type III: 23.0	
Mass of reverse-side coating, min, lb/100 ft ²	3.0	
Ash of the desaturated felt, max %	Type I: NA; Type II: 10.0; Type III: 10	
Mass of weather-side mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, min, lb/100 ft ²	18.5	
Mass of weather-side mineral matter retained on a No. 20 sieve, based on the mass passing a No. 6 sieve and retained on a No. 70 sieve, min, %	55.0	
Mass of weather-side mineral matter passing a No. 40 sieve, based on the mass of passing a No. 6 sieve, and retained on a No. 70 sieve, max %	5.0	
Mass of weather-side mineral matter passing a No. 70 sieve, based on the mass of the weather-side coating asphalt and the mineral matter passing the No. 70 sieve, max %	60.0	
Mass of total mineral matter including surfacing and stabilizer on both sides, based on the net mass of the finished product, min %	Type I: NA; Type II: 35.0; Type III: NA	
5B. MASSES OF ASPHALT SHINGLES: FIBERGLASS SHINGLES		
Minimum net mass per area of shingles (individual bundle), lb/100 ft ² , min.	70.0	70
Average net mass per area of shingles (total sample), lb/100 ft ² , min.	73.0	73
Mass per area of mat, lb/100 ft ² , min.	1.35	1.35
Mass per area of asphalt, lb/100 ft ² , min.	15.0	15
Mass per area of mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, lb/100 ft ² , min	25.0	25
Mass percent of mineral matter passing a No. 70 sieve based on the total asphalt and mineral matter passing the No. 70 sieve, max.	70.0	70
6. PHYSICAL REQUIREMENTS: FIBERGLASS SHINGLES		
Behavior on heating		
Loss of volatile matter, % max.	1.5	1.5
Sliding of granular surfacing, in. min.	1/16	1/16
Tear strength, g min.	1700	1700
Fastener pull-through resistance at 73 ±4 F, lbf, min	20	20
Fastener pull-through resistance at 32 ±4 F, lbf, min	23	23
Penetration of asphalt, 0.1mm (tested w/o mineral stabilizer) min.	15	15
Asphalt softening point, F (tested w/o mineral stabilizer) min/max	235 max; 190 min.	230
Weight of displaced granules, max.	1.0 g	1.0
7. FIRE/WIND/IMPACT RESISTANCE		
Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	CLASS A	
Wind resistance, UL 997 or ASTM D3161 (pass/fail, or not tested)	PASS	
Wind resistance (max. wind speed allowable)	60	
Impact resistance, UL 2218 (Class 1, 2, 3, or 4)	N/A	
8. CODE ACCEPTANCE		
BOCA Evaluation Service, Inc. (report number)		
ICBO Evaluation Service, Inc. (report number)		
International Evaluation Service (report number)		
SBCCI Public Safety Testing & Evaluation Service, Inc. (report number)		
National Evaluation Service, Inc. (report number)		
Other agencies (agency & report identification number)		
7. SEE APPENDIX IF CHECKED		

Asphalt Shingles Part 2: Technical Data

[illegible]

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	ATLAS ROOFING CORPORATION	
2. PRODUCT NAME	CHALET	
3. PRODUCT DESCRIPTION Reinforcing (organic/fiberglass/polyglass)	FIBERGLASS	
4. COMPLIES WITH:		
4A. ASTM D 225-00 <i>Standard Specification for Asphalt Shingles (Organic Felt) Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Uniform or nonuniform thickness shingles of any style		
Type II -- Thick butt, square tab, strip shingles		
Type III -- Uniform or nonuniform thickness shingles of any style		
4B. ASTM D 3018-00 <i>Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Self-sealing	X	
Type II -- Non-self-sealing		
4C. ASTM D 3462-00 <i>Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules</i> (YES/NO/NA)	YES	
5A. MASSES OF ASPHALT SHINGLES: ORGANIC SHINGLES		
Average net mass per unit area, min, lb/100 ft ²	Type I: 95.0; Type II: 95.0; Type III: 89.7	
Net mass of weather-exposed portion (ea. bundle) min, lb/100 ft ²	Type I: 91.0; Type II: 110.0; Type III: 85.7	
Net mass of upper portion (ea bundle), min, lb/100 ft ²	Type I: NA; Type II: 72.0; Type III: NA	
Mass of desaturated, moisture-free felt, min, lb/100 ft ²	Type I: 11.0; Type II: 11.0; Type III: 9.0	
Mass of asphalt saturant based on the mass of the dry felt, min %	165	
Mass of weather-side coating on the weather-exposed portion, min, lb/100 ft ²	Type I: 23.0; Type II: 30.0; Type III: 23.0	
Mass of weather-side coating on the upper portion, min lb/100ft ²	Type I: 23.0; Type II: 15.0; Type III: 23.0	
Mass of reverse-side coating, min, lb/100 ft ²	3.0	
Ash of the desaturated felt, max %	Type I: NA; Type II: 10.0; Type III: 10	
Mass of weather-side mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, min, lb/100 ft ²	18.5	
Mass of weather-side mineral matter retained on a No. 20 sieve, based on the mass passing a No. 6 sieve and retained on a No. 70 sieve, min, %	55.0	
Mass of weather-side mineral matter passing a No. 40 sieve, based on the mass of passing a No. 6 sieve, and retained on a No. 70 sieve, max %	5.0	
Mass of weather-side mineral matter passing a No. 70 sieve, based on the mass of the weather-side coating asphalt and the mineral matter passing the No. 70 sieve, max %	60.0	
Mass of total mineral matter including surfacing and stabilizer on both sides, based on the net mass of the finished product, min %	Type I: NA; Type II: 35.0; Type III: NA	
5B. MASSES OF ASPHALT SHINGLES: FIBERGLASS SHINGLES		
Minimum net mass per area of shingles (individual bundle), lb/100 ft ² , min.	70.0	70
Average net mass per area of shingles (total sample), lb/100 ft ² , min.	73.0	73
Mass per area of mat, lb/100 ft ² , min.	1.35	1.35
Mass per area of asphalt, lb/100 ft ² , min.	15.0	15
Mass per area of mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, lb/100 ft ² , min	25.0	25
Mass percent of mineral matter passing a No. 70 sieve based on the total asphalt and mineral matter passing the No. 70 sieve, max.	70.0	70
6. PHYSICAL REQUIREMENTS: FIBERGLASS SHINGLES		
Behavior on heating		
Loss of volatile matter, % max.	1.5	1.5
Sliding of granular surfacing, in. min.	1/16	1/16
Tear strength, g min.	1700	1700
Fastener pull-through resistance at 73 ±4 F, lbf, min	20	20
Fastener pull-through resistance at 32 ±4 F, lbf, min	23	23
Penetration of asphalt, 0.1mm (tested w/o mineral stabilizer) min.	15	15
Asphalt softening point, F (tested w/o mineral stabilizer) min/max	235 max; 190 min.	200
Weight of displaced granules, max.	1.0 g	1.0
7. FIRE/WIND/IMPACT RESISTANCE		
Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	CLASS A	
Wind resistance, UL 997 or ASTM D3161 (pass/fail, or not tested)	PASS	
Wind resistance (max. wind speed allowable)	110	
Impact resistance, UL 2218 (Class 1, 2, 3, or 4)	NA	
8. CODE ACCEPTANCE		
BOCA Evaluation Service, Inc. (report number)		
ICBO Evaluation Service, Inc. (report number)		
International Evaluation Service (report number)		
SBCCI Public Safety Testing & Evaluation Service, Inc. (report number)		
National Evaluation Service, Inc. (report number)		
Other agencies (agency & report identification number)		
7. SEE APPENDIX IF CHECKED		

Asphalt Shingles Part 2: Technical Data

ATLAS ROOFING CORPORATION	ATLAS ROOFING CORPORATION	CERTAINTED CORPORATION	CERTAINTED CORPORATION	CERTAINTED CORPORATION	CERTAINTED CORPORATION	CERTAINTED CORPORATION	CERTAINTED CORPORATION
STRATFORD	LEGEND	GRAND MANOR SHANGLE	CARRIAGE HOUSE SHANGLE	PRESIDENTIAL TL	PRESIDENTIAL SHAKE	HATTERAS	HALLMARK SHANGLE
FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	ORGANIC
							X
X	X	X	X	X	X	X	
YES	YES	YES	YES	YES	YES	YES	
							NA
							165
							3.0
							18.5
							55
							5.0
							60
							NA
70	70	70	70	70	70	70	
73	73	73	73	73	73	73	
1.35	1.35	1.35	1.35	1.35	1.35	1.35	
15	15	15	15	15	15	15	
25	25	25	25	25	25	25	
70	70	70	70	70	70	70	
1.5	1.5	1.5	1.5	1.5	1.5	1.5	
1/16	1/16	1/16	1/16	1/16	1/16	1/16	
1700	1700	1700	1700	1700	1700	1700	
20	20	20	20	20	20	20	
23	23	23	23	23	23	23	
15	15	15	15	15	15	15	
200	200	190-235	190-235	190-235	190-235	190-235	
1.0	1.0	1.0	1.0	1.0	1.0	1.0	
CLASS A	CLASS A	CLASS A	CLASS A	CLASS A	CLASS A	CLASS A	CLASS C
PASS	PASS	PASS	PASS	PASS	PASS	PASS	NA
110	60	110	110	110	85	110	
NA	NA						
		ER-5429	ER-5429	ER-5429	ER-5429	ER-5429	
		MIAMI-DADE 01-0607.05	MIAMI-DADE 01-0607.05	MIAMI-DADE 01-0503.02	MIAMI-DADE 01-0503.02	MIAMI-DADE 01-0612.09	WISC DILHR
		X	X	X	X	X	X

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	CERTAINTED CORPORATION
2. PRODUCT NAME	INDEPENDENCE SHANGLE
3. PRODUCT DESCRIPTION Reinforcing (organic/fiberglass/polyglass)	FIBERGLASS
4. COMPLIES WITH:	
4A. ASTM D 225-00 <i>Standard Specification for Asphalt Shingles (Organic Felt) Surfaced with Mineral Granules</i> (indicate type or NA)	
Type I -- Uniform or nonuniform thickness shingles of any style	
Type II -- Thick butt, square tab, strip shingles	
Type III -- Uniform or nonuniform thickness shingles of any style	
4B. ASTM D 3018-00 <i>Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules</i> (indicate type or NA)	
Type I -- Self-sealing	X
Type II -- Non-self-sealing	
4C. ASTM D 3462-00 <i>Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules</i> (YES/NO/NA)	YES
5A. MASSES OF ASPHALT SHINGLES: ORGANIC SHINGLES	
Average net mass per unit area, min, lb/100 ft ²	Type I: 95.0; Type II: 95.0; Type III: 89.7
Net mass of weather-exposed portion (ea. bundle) min, lb/100 ft ²	Type I: 91.0; Type II: 110.0; Type III: 85.7
Net mass of upper portion (ea bundle), min, lb/100 ft ²	Type I: NA; Type II: 72.0; Type III: NA
Mass of desaturated, moisture-free felt, min, lb/100 ft ²	Type I: 11.0; Type II: 11.0; Type III: 9.0
Mass of asphalt saturant based on the mass of the dry felt, min %	165
Mass of weather-side coating on the weather-exposed portion, min, lb/100 ft ²	Type I: 23.0; Type II: 30.0; Type III: 23.0
Mass of weather-side coating on the upper portion, min lb/100ft ²	Type I: 23.0; Type II: 15.0; Type III: 23.0
Mass of reverse-side coating, min, lb/100 ft ²	3.0
Ash of the desaturated felt, max %	Type I: NA; Type II: 10.0; Type III: 10
Mass of weather-side mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, min, lb/100 ft ²	18.5
Mass of weather-side mineral matter retained on a No. 20 sieve, based on the mass passing a No. 6 sieve and retained on a No. 70 sieve, min, %	55.0
Mass of weather-side mineral matter passing a No. 40 sieve, based on the mass of passing a No. 6 sieve, and retained on a No. 70 sieve, max %	5.0
Mass of weather-side mineral matter passing a No. 70 sieve, based on the mass of the weather-side coating asphalt and the mineral matter passing the No. 70 sieve, max %	60.0
Mass of total mineral matter including surfacing and stabilizer on both sides, based on the net mass of the finished product, min %	Type I: NA; Type II: 35.0; Type III: NA
5B. MASSES OF ASPHALT SHINGLES: FIBERGLASS SHINGLES	
Minimum net mass per area of shingles (individual bundle), lb/100 ft ² , min.	70.0
Average net mass per area of shingles (total sample), lb/100 ft ² , min.	73.0
Mass per area of mat, lb/100 ft ² , min.	1.35
Mass per area of asphalt, lb/100 ft ² , min.	15.0
Mass per area of mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, lb/100 ft ² , min	25.0
Mass percent of mineral matter passing a No. 70 sieve based on the total asphalt and mineral matter passing the No. 70 sieve, max.	70.0
6. PHYSICAL REQUIREMENTS: FIBERGLASS SHINGLES	
Behavior on heating	
Loss of volatile matter, % max.	1.5
Sliding of granular surfacing, in. min.	1/16
Tear strength, g min.	1700
Fastener pull-through resistance at 73 ±4 F, lbf, min	20
Fastener pull-through resistance at 32 ±4 F, lbf, min	23
Penetration of asphalt, 0.1mm (tested w/o mineral stabilizer) min.	15
Asphalt softening point, F (tested w/o mineral stabilizer) min/max	235 max; 190 min.
Weight of displaced granules, max.	1.0 g
7. FIRE/WIND/IMPACT RESISTANCE	
Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	CLASS A
Wind resistance, UL 997 or ASTM D3161 (pass/fail, or not tested)	PASS
Wind resistance (max. wind speed allowable)	80
Impact resistance, UL 2218 (Class 1, 2, 3, or 4)	
8. CODE ACCEPTANCE	
BOCA Evaluation Service, Inc. (report number)	
ICBO Evaluation Service, Inc. (report number)	ER-5429
International Evaluation Service (report number)	
SBCCI Public Safety Testing & Evaluation Service, Inc. (report number)	
National Evaluation Service, Inc. (report number)	
Other agencies (agency & report identification number)	
7. SEE APPENDIX IF CHECKED	X

Asphalt Shingles Part 2: Technical Data

CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION
LANDMARK TL	LANDMARK 40	LANDMARK 30	LANDMARK 25	XT 25	CLASSIC HORIZON SHANGLE	NEW HORIZON SHANGLE	CUSTOM SEALDON 30
FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	ORGANIC
							X
X	X	X	X	X	X	X	
YES	YES	YES	YES	YES	YES	YES	
							165
							3.0
							NA
							18.5
							55
							5.0
							5.0
							NA
70	70	70	70	70	70	70	
73	73	73	73	73	73	73	
1.35	1.35	1.35	1.35	1.35	1.35	1.35	
15	15	15	15	15	15	15	
25	25	25	25	25	25	25	
70	70	70	70	70	70	70	
1.5	1.5	1.5	1.5	1.5	1.5	1.5	
1/16	1/16	1/16	1/16	1/16	1/16	1/16	
1700	1700	1700	1700	1700	1700	1700	
20	20	20	20	20	20	20	
23	23	23	23	23	23	23	
15	15	15	15	15	15	15	
190-235	190-235	190-235	190-235	190-235	190-235	190-235	
1.0	1.0	1.0	1.0	1.0	1.0	1.0	
CLASS A	CLASS A	CLASS A	CLASS A	CLASS A	CLASS A	CLASS A	CLASS C
PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
110	80	70/80	60	60	60	60	80
ER-5429	ER-5429	ER-5429	ER-5429	ER-5429	ER-5429	ER-5429	
	MIAMI-DADE 01-0503.03	MIAMI-DADE 01-0503.03	MIAMI-DADE 01-0518.01	MIAMI-DADE 01-0503.01	MIAMI-DADE 01-0516.05		
X	X	X	X	X	X	X	X

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	CERTAINTED CORPORATION
2. PRODUCT NAME	SEALDON 25
3. PRODUCT DESCRIPTION Reinforcing (organic/fiberglass/polyglass)	ORGANIC
4. COMPLIES WITH:	
4A. ASTM D 225-00 <i>Standard Specification for Asphalt Shingles (Organic Felt) Surfaced with Mineral Granules</i> (indicate type or NA)	
Type I -- Uniform or nonuniform thickness shingles of any style	
Type II -- Thick butt, square tab, strip shingles	
Type III -- Uniform or nonuniform thickness shingles of any style	X
4B. ASTM D 3018-00 <i>Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules</i> (indicate type or NA)	
Type I -- Self-sealing	
Type II -- Non-self-sealing	
4C. ASTM D 3462-00 <i>Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules</i> (YES/NO/NA)	
5A. MASSES OF ASPHALT SHINGLES: ORGANIC SHINGLES	
Average net mass per unit area, min, lb/100 ft ²	Type I: 95.0; Type II: 95.0; Type III: 89.7
Net mass of weather-exposed portion (ea. bundle) min, lb/100 ft ²	Type I: 91.0; Type II: 110.0; Type III: 85.7
Net mass of upper portion (ea bundle), min, lb/100 ft ²	Type I: NA; Type II: 72.0; Type III: NA
Mass of desaturated, moisture-free felt, min, lb/100 ft ²	Type I: 11.0; Type II: 11.0; Type III: 9.0
Mass of asphalt saturant based on the mass of the dry felt, min %	165 165
Mass of weather-side coating on the weather-exposed portion, min, lb/100 ft ²	Type I: 23.0; Type II: 30.0; Type III: 23.0
Mass of weather-side coating on the upper portion, min lb/100ft ²	Type I: 23.0; Type II: 15.0; Type III: 23.0
Mass of reverse-side coating, min, lb/100 ft ²	3.0 3.0
Ash of the desaturated felt, max %	Type I: NA; Type II: 10.0; Type III: 10
Mass of weather-side mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, min, lb/100 ft ²	18.5 18.5
Mass of weather-side mineral matter retained on a No. 20 sieve, based on the mass passing a No. 6 sieve and retained on a No. 70 sieve, min, %	55.0 55
Mass of weather-side mineral matter passing a No. 40 sieve, based on the mass of passing a No. 6 sieve, and retained on a No. 70 sieve, max %	5.0 5.0
Mass of weather-side mineral matter passing a No. 70 sieve, based on the mass of the weather-side coating asphalt and the mineral matter passing the No. 70 sieve, max %	60.0 60.0
Mass of total mineral matter including surfacing and stabilizer on both sides, based on the net mass of the finished product, min %	Type I: NA; Type II: 35.0; Type III: NA NA
5B. MASSES OF ASPHALT SHINGLES: FIBERGLASS SHINGLES	
Minimum net mass per area of shingles (individual bundle), lb/100 ft ² , min.	70.0
Average net mass per area of shingles (total sample), lb/100 ft ² , min.	73.0
Mass per area of mat, lb/100 ft ² , min.	1.35
Mass per area of asphalt, lb/100 ft ² , min.	15.0
Mass per area of mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, lb/100 ft ² , min	25.0
Mass percent of mineral matter passing a No. 70 sieve based on the total asphalt and mineral matter passing the No. 70 sieve, max.	70.0
6. PHYSICAL REQUIREMENTS: FIBERGLASS SHINGLES	
Behavior on heating	
Loss of volatile matter, % max.	1.5
Sliding of granular surfacing, in. min.	1/16
Tear strength, g min.	1700
Fastener pull-through resistance at 73 ±4 F, lbf, min	20
Fastener pull-through resistance at 32 ±4 F, lbf, min	23
Penetration of asphalt, 0.1mm (tested w/o mineral stabilizer) min.	15
Asphalt softening point, F (tested w/o mineral stabilizer) min/max	235 max; 190 min.
Weight of displaced granules, max.	1.0 g
7. FIRE/WIND/IMPACT RESISTANCE	
Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	CLASS C
Wind resistance, UL 997 or ASTM D3161 (pass/fail, or not tested)	PASS
Wind resistance (max. wind speed allowable)	60
Impact resistance, UL 2218 (Class 1, 2, 3, or 4)	
8. CODE ACCEPTANCE	
BOCA Evaluation Service, Inc. (report number)	
ICBO Evaluation Service, Inc. (report number)	
International Evaluation Service (report number)	
SBCCI Public Safety Testing & Evaluation Service, Inc. (report number)	
National Evaluation Service, Inc. (report number)	
Other agencies (agency & report identification number)	
7. SEE APPENDIX IF CHECKED	X

Asphalt Shingles Part 2: Technical Data

CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION
HEARTHSTEAD	CERTAINTEED XT 30	CERTAINTEED CT 20	CUSTOM LOK 25	ARCHITECT 80	FIRE-HALT	FIRESCREEN	WOODSCAPE 40
ORGANIC	FIBERGLASS	FIBERGLASS	ORGANIC	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS
X			X				
	X	X		X	X	X	X
	YES	YES		YES	NO	NO	YES
165			165				
3.0			3.0				
18.5			18.5				
55			55				
5.0			5.0				
60.0			60.0				
NA			NA				
	70	70		70	70	70	70
	73	73		73	73	73	73
	1.35	1.35		1.35	1.35	1.35	1.35
	15	15		15	15	15	15
	25	25		25	25	25	25
	70	70		70	70	70	70
	1.5	1.5		1.5	1.5	1.5	1.5
	1/16	1/16		1/16	1/16	1/16	1/16
	1700	1700		1700	<1700	1700	1700
	20	20		20	20	20	20
	23	23		23	23	23	23
	15	15		15	15	15	15
	190-235	190-235		190-235	190-235	190-235	190-235
	1.0	1.0		1.0	1.0	1.0	1.0
CLASS C	CLASS A	CLASS A	CLASS C	CLASS A	CLASS A	CLASS A	CLASS A
PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
60	80	60	60	100	60	60	80
	ER-5429	ER-5429		ER-5429			ER-5429
	MIAMI-DADE 01-0503.01	MIAMI-DADE 01-0503.01 BMEC 97-12- 221					
X	X	X	X	X	X	X	X

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	CERTAINTED CORPORATION
2. PRODUCT NAME	WOODSCAPE 30
3. PRODUCT DESCRIPTION Reinforcing (organic/fiberglass/polyglass)	FIBERGLASS
4. COMPLIES WITH:	
4A. ASTM D 225-00 <i>Standard Specification for Asphalt Shingles (Organic Felt) Surfaced with Mineral Granules</i> (indicate type or NA)	
Type I -- Uniform or nonuniform thickness shingles of any style	
Type II -- Thick butt, square tab, strip shingles	
Type III -- Uniform or nonuniform thickness shingles of any style	
4B. ASTM D 3018-00 <i>Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules</i> (indicate type or NA)	
Type I -- Self-sealing	X
Type II -- Non-self-sealing	
4C. ASTM D 3462-00 <i>Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules</i> (YES/NO/NA)	YES
5A. MASSES OF ASPHALT SHINGLES: ORGANIC SHINGLES	
Average net mass per unit area, min, lb/100 ft ²	Type I: 95.0; Type II: 95.0; Type III: 89.7
Net mass of weather-exposed portion (ea. bundle) min, lb/100 ft ²	Type I: 91.0; Type II: 110.0; Type III: 85.7
Net mass of upper portion (ea bundle), min, lb/100 ft ²	Type I: NA; Type II: 72.0; Type III: NA
Mass of desaturated, moisture-free felt, min, lb/100 ft ²	Type I: 11.0; Type II: 11.0; Type III: 9.0
Mass of asphalt saturant based on the mass of the dry felt, min %	165
Mass of weather-side coating on the weather-exposed portion, min, lb/100 ft ²	Type I: 23.0; Type II: 30.0; Type III: 23.0
Mass of weather-side coating on the upper portion, min lb/100ft ²	Type I: 23.0; Type II: 15.0; Type III: 23.0
Mass of reverse-side coating, min, lb/100 ft ²	3.0
Ash of the desaturated felt, max %	Type I: NA; Type II: 10.0; Type III: 10
Mass of weather-side mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, min, lb/100 ft ²	18.5
Mass of weather-side mineral matter retained on a No. 20 sieve, based on the mass passing a No. 6 sieve and retained on a No. 70 sieve, min, %	55.0
Mass of weather-side mineral matter passing a No. 40 sieve, based on the mass of passing a No. 6 sieve, and retained on a No. 70 sieve, max %	5.0
Mass of weather-side mineral matter passing a No. 70 sieve, based on the mass of the weather-side coating asphalt and the mineral matter passing the No. 70 sieve, max %	60.0
Mass of total mineral matter including surfacing and stabilizer on both sides, based on the net mass of the finished product, min %	Type I: NA; Type II: 35.0; Type III: NA
5B. MASSES OF ASPHALT SHINGLES: FIBERGLASS SHINGLES	
Minimum net mass per area of shingles (individual bundle), lb/100 ft ² , min.	70.0 70
Average net mass per area of shingles (total sample), lb/100 ft ² , min.	73.0 73
Mass per area of mat, lb/100 ft ² , min.	1.35 1.35
Mass per area of asphalt, lb/100 ft ² , min.	15.0 15
Mass per area of mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, lb/100 ft ² , min	25.0 25
Mass percent of mineral matter passing a No. 70 sieve based on the total asphalt and mineral matter passing the No. 70 sieve, max.	70.0 70
6. PHYSICAL REQUIREMENTS: FIBERGLASS SHINGLES	
Behavior on heating	
Loss of volatile matter, % max.	1.5 1.5
Sliding of granular surfacing, in. min.	1/16 1/16
Tear strength, g min.	1700 1700
Fastener pull-through resistance at 73 ±4 F, lbf, min	20 20
Fastener pull-through resistance at 32 ±4 F, lbf, min	23 23
Penetration of asphalt, 0.1mm (tested w/o mineral stabilizer) min.	15 15
Asphalt softening point, F (tested w/o mineral stabilizer) min/max	235 max; 190 min. 190-235
Weight of displaced granules, max.	1.0 g 1.0
7. FIRE/WIND/IMPACT RESISTANCE	
Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	CLASS A
Wind resistance, UL 997 or ASTM D3161 (pass/fail, or not tested)	PASS
Wind resistance (max. wind speed allowable)	70
Impact resistance, UL 2218 (Class 1, 2, 3, or 4)	
8. CODE ACCEPTANCE	
BOCA Evaluation Service, Inc. (report number)	
ICBO Evaluation Service, Inc. (report number)	ER-5429
International Evaluation Service (report number)	
SBCCI Public Safety Testing & Evaluation Service, Inc. (report number)	
National Evaluation Service, Inc. (report number)	
Other agencies (agency & report identification number)	
7. SEE APPENDIX IF CHECKED	X

Asphalt Shingles Part 2: Technical Data

CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	ELK	ELK	ELK	ELK	ELK
WOODSCAPE 25	SEAL KING 25	JET 25	PRESTIQUE PLUS 40 HIGH DEFINITION	PRESTIQUE I 35 HIGH DEFINITION	PRESTIQUE 30 HIGH DEFINITION	PRESTIQUE 25 RAISED PROFILE	PRESTIQUE GALLERY COLLECTION
FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS
X	X	X	X	X	X	X	X
YES	YES	YES	YES	YES	YES	YES	YES
70	70	70	70	70	70	70	70
73	73	73	73	73	73	73	73
1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
15	15	15	15	15	15	15	15
25	25	25	25	25	25	25	25
70	70	70	70	70	70	70	70
1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16
1700	1700	1700	1700	1700	1700	1700	1700
20	20	20	20	20	20	20	20
23	23	23	23	23	23	23	23
15	15	15	15	15	15	15	15
190-235	190-235	190-235	190-235	190-235	190-235	190-235	190-235
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CLASS A PASS 60	CLASS A PASS 60	CLASS A PASS 60	CLASS A PASS 60	CLASS A PASS 80	CLASS A PASS 60	CLASS A PASS 60	CLASS A PASS 60
ER-5429	ER-5429	ER-5429	ER-5414	ER-5414	ER-5414	ER-5414	ER-5414
			METRO-DADE 01-0411.09	METRO-DADE 01-0411.12	METRO-DADE 01-0411.11	METRO-DADE 01-0516.08	METRO-DADE 01-0523.02
X	X	X	X	X	X	X	X

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	ELK	
2. PRODUCT NAME	CAPSTONE	
3. PRODUCT DESCRIPTION Reinforcing (organic/fiberglass/polyglass)	FIBERGLASS	
4. COMPLIES WITH:		
4A. ASTM D 225-00 <i>Standard Specification for Asphalt Shingles (Organic Felt) Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Uniform or nonuniform thickness shingles of any style		
Type II -- Thick butt, square tab, strip shingles		
Type III -- Uniform or nonuniform thickness shingles of any style		
4B. ASTM D 3018-00 <i>Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Self-sealing	X	
Type II -- Non-self-sealing		
4C. ASTM D 3462-00 <i>Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules</i> (YES/NO/NA)	YES	
5A. MASSES OF ASPHALT SHINGLES: ORGANIC SHINGLES		
Average net mass per unit area, min, lb/100 ft ²	Type I: 95.0; Type II: 95.0; Type III: 89.7	
Net mass of weather-exposed portion (ea. bundle) min, lb/100 ft ²	Type I: 91.0; Type II: 110.0; Type III: 85.7	
Net mass of upper portion (ea bundle), min, lb/100 ft ²	Type I: NA; Type II: 72.0; Type III: NA	
Mass of desaturated, moisture-free felt, min, lb/100 ft ²	Type I: 11.0; Type II: 11.0; Type III: 9.0	
Mass of asphalt saturant based on the mass of the dry felt, min %	165	
Mass of weather-side coating on the weather-exposed portion, min, lb/100 ft ²	Type I: 23.0; Type II: 30.0; Type III: 23.0	
Mass of weather-side coating on the upper portion, min lb/100ft ²	Type I: 23.0; Type II: 15.0; Type III: 23.0	
Mass of reverse-side coating, min, lb/100 ft ²	3.0	
Ash of the desaturated felt, max %	Type I: NA; Type II: 10.0; Type III: 10	
Mass of weather-side mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, min, lb/100 ft ²	18.5	
Mass of weather-side mineral matter retained on a No. 20 sieve, based on the mass passing a No. 6 sieve and retained on a No. 70 sieve, min, %	55.0	
Mass of weather-side mineral matter passing a No. 40 sieve, based on the mass of passing a No. 6 sieve, and retained on a No. 70 sieve, max %	5.0	
Mass of weather-side mineral matter passing a No. 70 sieve, based on the mass of the weather-side coating asphalt and the mineral matter passing the No. 70 sieve, max %	60.0	
Mass of total mineral matter including surfacing and stabilizer on both sides, based on the net mass of the finished product, min %	Type I: NA; Type II: 35.0; Type III: NA	
5B. MASSES OF ASPHALT SHINGLES: FIBERGLASS SHINGLES		
Minimum net mass per area of shingles (individual bundle), lb/100 ft ² , min.	70.0	70
Average net mass per area of shingles (total sample), lb/100 ft ² , min.	73.0	73
Mass per area of mat, lb/100 ft ² , min.	1.35	1.35
Mass per area of asphalt, lb/100 ft ² , min.	15.0	15
Mass per area of mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, lb/100 ft ² , min	25.0	25
Mass percent of mineral matter passing a No. 70 sieve based on the total asphalt and mineral matter passing the No. 70 sieve, max.	70.0	70
6. PHYSICAL REQUIREMENTS: FIBERGLASS SHINGLES		
Behavior on heating		
Loss of volatile matter, % max.	1.5	1.5
Sliding of granular surfacing, in. min.	1/16	1/16
Tear strength, g min.	1700	1700
Fastener pull-through resistance at 73 ±4 F, lbf, min	20	20
Fastener pull-through resistance at 32 ±4 F, lbf, min	23	23
Penetration of asphalt, 0.1mm (tested w/o mineral stabilizer) min.	15	15
Asphalt softening point, F (tested w/o mineral stabilizer) min/max	235 max; 190 min.	190-235
Weight of displaced granules, max.	1.0 g	1.0
7. FIRE/WIND/IMPACT RESISTANCE		
Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	CLASS A	
Wind resistance, UL 997 or ASTM D3161 (pass/fail, or not tested)	PASS	
Wind resistance (max. wind speed allowable)	60	
Impact resistance, UL 2218 (Class 1, 2, 3, or 4)		
8. CODE ACCEPTANCE		
BOCA Evaluation Service, Inc. (report number)		
ICBO Evaluation Service, Inc. (report number)	ER-5414	
International Evaluation Service (report number)		
SBCCI Public Safety Testing & Evaluation Service, Inc. (report number)		
National Evaluation Service, Inc. (report number)		
Other agencies (agency & report identification number)	METRO-DADE 01-0523.01	
7. SEE APPENDIX IF CHECKED	X	

Asphalt Shingles Part 2: Technical Data

[illegible]

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	GAF MATERIALS CORPORATION	
2. PRODUCT NAME	ORIGINAL TIMBERLINE	
3. PRODUCT DESCRIPTION Reinforcing (organic/fiberglass/polyglass)	FIBERGLASS	
4. COMPLIES WITH:		
4A. ASTM D 225-00 <i>Standard Specification for Asphalt Shingles (Organic Felt) Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Uniform or nonuniform thickness shingles of any style		
Type II -- Thick butt, square tab, strip shingles		
Type III -- Uniform or nonuniform thickness shingles of any style		
4B. ASTM D 3018-00 <i>Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Self-sealing	X	
Type II -- Non-self-sealing		
4C. ASTM D 3462-00 <i>Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules</i> (YES/NO/NA)		
5A. MASSES OF ASPHALT SHINGLES: ORGANIC SHINGLES		
Average net mass per unit area, min, lb/100 ft ²	Type I: 95.0; Type II: 95.0; Type III: 89.7	
Net mass of weather-exposed portion (ea. bundle) min, lb/100 ft ²	Type I: 91.0; Type II: 110.0; Type III: 85.7	
Net mass of upper portion (ea bundle), min, lb/100 ft ²	Type I: NA; Type II: 72.0; Type III: NA	
Mass of desaturated, moisture-free felt, min, lb/100 ft ²	Type I: 11.0; Type II: 11.0; Type III: 9.0	
Mass of asphalt saturant based on the mass of the dry felt, min %	165	
Mass of weather-side coating on the weather-exposed portion, min, lb/100 ft ²	Type I: 23.0; Type II: 30.0; Type III: 23.0	
Mass of weather-side coating on the upper portion, min lb/100ft ²	Type I: 23.0; Type II: 15.0; Type III: 23.0	
Mass of reverse-side coating, min, lb/100 ft ²	3.0	
Ash of the desaturated felt, max %	Type I: NA; Type II: 10.0; Type III: 10	
Mass of weather-side mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, min, lb/100 ft ²	18.5	
Mass of weather-side mineral matter retained on a No. 20 sieve, based on the mass passing a No. 6 sieve and retained on a No. 70 sieve, min, %	55.0	
Mass of weather-side mineral matter passing a No. 40 sieve, based on the mass of passing a No. 6 sieve, and retained on a No. 70 sieve, max %	5.0	
Mass of weather-side mineral matter passing a No. 70 sieve, based on the mass of the weather-side coating asphalt and the mineral matter passing the No. 70 sieve, max %	60.0	
Mass of total mineral matter including surfacing and stabilizer on both sides, based on the net mass of the finished product, min %	Type I: NA; Type II: 35.0; Type III: NA	
5B. MASSES OF ASPHALT SHINGLES: FIBERGLASS SHINGLES		
Minimum net mass per area of shingles (individual bundle), lb/100 ft ² , min.	70.0	70
Average net mass per area of shingles (total sample), lb/100 ft ² , min.	73.0	73
Mass per area of mat, lb/100 ft ² , min.	1.35	1.35
Mass per area of asphalt, lb/100 ft ² , min.	15.0	15
Mass per area of mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, lb/100 ft ² , min	25.0	25
Mass percent of mineral matter passing a No. 70 sieve based on the total asphalt and mineral matter passing the No. 70 sieve, max.	70.0	70
6. PHYSICAL REQUIREMENTS: FIBERGLASS SHINGLES		
Behavior on heating		
Loss of volatile matter, % max.	1.5	1.5
Sliding of granular surfacing, in. min.	1/16	1/16
Tear strength, g min.	1700	1700
Fastener pull-through resistance at 73 ±4 F, lbf, min	20	20
Fastener pull-through resistance at 32 ±4 F, lbf, min	23	23
Penetration of asphalt, 0.1mm (tested w/o mineral stabilizer) min.	15	15
Asphalt softening point, F (tested w/o mineral stabilizer) min/max	235 max; 190 min.	190-235
Weight of displaced granules, max.	1.0 g	1.0
7. FIRE/WIND/IMPACT RESISTANCE		
Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	CLASS A	
Wind resistance, UL 997 or ASTM D3161 (pass/fail, or not tested)	PASS	
Wind resistance (max. wind speed allowable)		
Impact resistance, UL 2218 (Class 1, 2, 3, or 4)		
8. CODE ACCEPTANCE		
BOCA Evaluation Service, Inc. (report number)		
ICBO Evaluation Service, Inc. (report number)		
International Evaluation Service (report number)		
SBCCI Public Safety Testing & Evaluation Service, Inc. (report number)		
National Evaluation Service, Inc. (report number)		
Other agencies (agency & report identification number)		
7. SEE APPENDIX IF CHECKED		

Asphalt Shingles Part 2: Technical Data

[illegible]

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	GEORGIA PACIFIC CORPORATION	
2. PRODUCT NAME	TOUGH GLASS PLUS	
3. PRODUCT DESCRIPTION Reinforcing (organic/fiberglass/polyglass)	FIBERGLASS	
4. COMPLIES WITH:		
4A. ASTM D 225-00 <i>Standard Specification for Asphalt Shingles (Organic Felt) Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Uniform or nonuniform thickness shingles of any style		
Type II -- Thick butt, square tab, strip shingles		
Type III -- Uniform or nonuniform thickness shingles of any style		
4B. ASTM D 3018-00 <i>Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Self-sealing		
Type II -- Non-self-sealing		
4C. ASTM D 3462-00 <i>Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules</i> (YES/NO/NA)		
5A. MASSES OF ASPHALT SHINGLES: ORGANIC SHINGLES		
Average net mass per unit area, min, lb/100 ft ²	Type I: 95.0; Type II: 95.0; Type III: 89.7	
Net mass of weather-exposed portion (ea. bundle) min, lb/100 ft ²	Type I: 91.0; Type II: 110.0; Type III: 85.7	
Net mass of upper portion (ea bundle), min, lb/100 ft ²	Type I: NA; Type II: 72.0; Type III: NA	
Mass of desaturated, moisture-free felt, min, lb/100 ft ²	Type I: 11.0; Type II: 11.0; Type III: 9.0	
Mass of asphalt saturant based on the mass of the dry felt, min %	165	
Mass of weather-side coating on the weather-exposed portion, min, lb/100 ft ²	Type I: 23.0; Type II: 30.0; Type III: 23.0	
Mass of weather-side coating on the upper portion, min lb/100ft ²	Type I: 23.0; Type II: 15.0; Type III: 23.0	
Mass of reverse-side coating, min, lb/100 ft ²	3.0	
Ash of the desaturated felt, max %	Type I: NA; Type II: 10.0; Type III: 10	
Mass of weather-side mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, min, lb/100 ft ²	18.5	
Mass of weather-side mineral matter retained on a No. 20 sieve, based on the mass passing a No. 6 sieve and retained on a No. 70 sieve, min, %	55.0	
Mass of weather-side mineral matter passing a No. 40 sieve, based on the mass of passing a No. 6 sieve, and retained on a No. 70 sieve, max %	5.0	
Mass of weather-side mineral matter passing a No. 70 sieve, based on the mass of the weather-side coating asphalt and the mineral matter passing the No. 70 sieve, max %	60.0	
Mass of total mineral matter including surfacing and stabilizer on both sides, based on the net mass of the finished product, min %	Type I: NA; Type II: 35.0; Type III: NA	
5B. MASSES OF ASPHALT SHINGLES: FIBERGLASS SHINGLES		
Minimum net mass per area of shingles (individual bundle), lb/100 ft ² , min.	70.0	70
Average net mass per area of shingles (total sample), lb/100 ft ² , min.	73.0	73
Mass per area of mat, lb/100 ft ² , min.	1.35	1.35
Mass per area of asphalt, lb/100 ft ² , min.	15.0	15
Mass per area of mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, lb/100 ft ² , min	25.0	25
Mass percent of mineral matter passing a No. 70 sieve based on the total asphalt and mineral matter passing the No. 70 sieve, max.	70.0	70
6. PHYSICAL REQUIREMENTS: FIBERGLASS SHINGLES		
Behavior on heating		
Loss of volatile matter, % max.	1.5	1.5
Sliding of granular surfacing, in. min.	1/16	1/16
Tear strength, g min.	1700	1700
Fastener pull-through resistance at 73 ±4 F, lbf, min	20	20
Fastener pull-through resistance at 32 ±4 F, lbf, min	23	23
Penetration of asphalt, 0.1mm (tested w/o mineral stabilizer) min.	15	15
Asphalt softening point, F (tested w/o mineral stabilizer) min/max	235 max; 190 min.	200
Weight of displaced granules, max.	1.0 g	1.0
7. FIRE/WIND/IMPACT RESISTANCE		
Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	CLASS A	
Wind resistance, UL 997 or ASTM D3161 (pass/fail, or not tested)	PASS	
Wind resistance (max. wind speed allowable)	60	
Impact resistance, UL 2218 (Class 1, 2, 3, or 4)	NA	
8. CODE ACCEPTANCE		
BOCA Evaluation Service, Inc. (report number)		
ICBO Evaluation Service, Inc. (report number)		
International Evaluation Service (report number)		
SBCCI Public Safety Testing & Evaluation Service, Inc. (report number)		
National Evaluation Service, Inc. (report number)		
Other agencies (agency & report identification number)		
7. SEE APPENDIX IF CHECKED		

Asphalt Shingles Part 2: Technical Data

GEORGIA PACIFIC CORPORATION	GEORGIA PACIFIC CORPORATION	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.
TOUGH GLASS T-LOCK	SAVANNAH	ARISTROCAT 25	ARMOUR LOCK 20	ARMOUR PLUS 20	CAMBRIDGE 25	CAMBRIDGE 25 AR	CAMBRIDGE 30
FIBERGLASS		ORGANIC	ORGANIC	ORGANIC	FIBERGLASS	FIBERGLASS	FIBERGLASS
		X		X			
	X				X	X	X
YES	YES				YES	YES	YES
		>89.7	>89.7	>89.7			
		>85.7	>85.7	>85.7			
		NA	NA	NA			
		>9.0	>9.0	>9.0			
		>165	>165	>165			
		>23	>23	>23			
		>23	>23	>23			
		>3.0	>3.0	>3.0			
		<10	<10	<10			
		>18.5	>18.5	>18.5			
		>55	>55	>55			
		>5.0	>5.0	>5.0			
		<60	<60	<60			
		NA	NA	NA			
70	70				>70	>70	>70
73	73				>73	>73	>73
1.35	1.5				>1.35	>1.35	>1.35
15	15				>15	>15	>15
25	25				>25	>25	>25
70	70				<70	<70	<70
1.5	1.5				<1.0	<1.0	<1.0
1/16	1/16				<1/16	<1/16	<1/16
1700	1700				>1700	>1700	>1700
20	20				>20	>20	>20
23	23				>23	>23	>23
15	15				>15	>15	>15
200	20				200-215	200-215	200-215
1.0	1.0				<1.0	<1.0	<1.0
CLASS A	CLASS A	CLASS C	CLASS C	CLASS C	CLASS A	CLASS A	CLASS A
PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
60	60/80		80	60	60	60	
NA	NA						
					ER-5796	ER-5796	ER-5796
					X	X	X

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	IKO MANUFACTURING INC.	
2. PRODUCT NAME	CAMBRIDGE 40	
3. PRODUCT DESCRIPTION Reinforcing (organic/fiberglass/polyglass)		
4. COMPLIES WITH:		
4A. ASTM D 225-00 <i>Standard Specification for Asphalt Shingles (Organic Felt) Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Uniform or nonuniform thickness shingles of any style		
Type II -- Thick butt, square tab, strip shingles		
Type III -- Uniform or nonuniform thickness shingles of any style		
4B. ASTM D 3018-00 <i>Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Self-sealing	X	
Type II -- Non-self-sealing		
4C. ASTM D 3462-00 <i>Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules</i> (YES/NO/NA)	YES	
5A. MASSES OF ASPHALT SHINGLES: ORGANIC SHINGLES		
Average net mass per unit area, min, lb/100 ft ²	Type I: 95.0; Type II: 95.0; Type III: 89.7	
Net mass of weather-exposed portion (ea. bundle) min, lb/100 ft ²	Type I: 91.0; Type II: 110.0; Type III: 85.7	
Net mass of upper portion (ea bundle), min, lb/100 ft ²	Type I: NA; Type II: 72.0; Type III: NA	
Mass of desaturated, moisture-free felt, min, lb/100 ft ²	Type I: 11.0; Type II: 11.0; Type III: 9.0	
Mass of asphalt saturant based on the mass of the dry felt, min %	165	
Mass of weather-side coating on the weather-exposed portion, min, lb/100 ft ²	Type I: 23.0; Type II: 30.0; Type III: 23.0	
Mass of weather-side coating on the upper portion, min lb/100ft ²	Type I: 23.0; Type II: 15.0; Type III: 23.0	
Mass of reverse-side coating, min, lb/100 ft ²	3.0	
Ash of the desaturated felt, max %	Type I: NA; Type II: 10.0; Type III: 10	
Mass of weather-side mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, min, lb/100 ft ²	18.5	
Mass of weather-side mineral matter retained on a No. 20 sieve, based on the mass passing a No. 6 sieve and retained on a No. 70 sieve, min, %	55.0	
Mass of weather-side mineral matter passing a No. 40 sieve, based on the mass of passing a No. 6 sieve, and retained on a No. 70 sieve, max %	5.0	
Mass of weather-side mineral matter passing a No. 70 sieve, based on the mass of the weather-side coating asphalt and the mineral matter passing the No. 70 sieve, max %	60.0	
Mass of total mineral matter including surfacing and stabilizer on both sides, based on the net mass of the finished product, min %	Type I: NA; Type II: 35.0; Type III: NA	
5B. MASSES OF ASPHALT SHINGLES: FIBERGLASS SHINGLES		
Minimum net mass per area of shingles (individual bundle), lb/100 ft ² , min.	70.0	>70
Average net mass per area of shingles (total sample), lb/100 ft ² , min.	73.0	>73
Mass per area of mat, lb/100 ft ² , min.	1.35	>1.35
Mass per area of asphalt, lb/100 ft ² , min.	15.0	>15
Mass per area of mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, lb/100 ft ² , min	25.0	>25
Mass percent of mineral matter passing a No. 70 sieve based on the total asphalt and mineral matter passing the No. 70 sieve, max.	70.0	<70
6. PHYSICAL REQUIREMENTS: FIBERGLASS SHINGLES		
Behavior on heating		
Loss of volatile matter, % max.	1.5	<1.0
Sliding of granular surfacing, in. min.	1/16	<1/16
Tear strength, g min.	1700	>1700
Fastener pull-through resistance at 73 ±4 F, lbf, min	20	>20
Fastener pull-through resistance at 32 ±4 F, lbf, min	23	>23
Penetration of asphalt, 0.1mm (tested w/o mineral stabilizer) min.	15	>15
Asphalt softening point, F (tested w/o mineral stabilizer) min/max	235 max; 190 min.	200-215
Weight of displaced granules, max.	1.0 g	<1.0
7. FIRE/WIND/IMPACT RESISTANCE		
Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	CLASS A	
Wind resistance, UL 997 or ASTM D3161 (pass/fail, or not tested)	PASS	
Wind resistance (max. wind speed allowable)	80	
Impact resistance, UL 2218 (Class 1, 2, 3, or 4)		
8. CODE ACCEPTANCE		
BOCA Evaluation Service, Inc. (report number)		
ICBO Evaluation Service, Inc. (report number)	ER-5796	
International Evaluation Service (report number)		
SBCCI Public Safety Testing & Evaluation Service, Inc. (report number)		
National Evaluation Service, Inc. (report number)		
Other agencies (agency & report identification number)		
7. SEE APPENDIX IF CHECKED	X	

Asphalt Shingles Part 2: Technical Data

IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.
CAMBRIDGE 40 AR	CHATEAU	CROWNE 30	DYNASTY	IMPERIAL GENTRY	IMPERIAL GENTRY 25 AR	RENAISSANCE XL	ROYAL VICTORIAN
	ORGANIC	ORGANIC	FIBERGLASS	FIBERGLASS	FIBERGLASS	ORGANIC	ORGANIC
	X	X					
X			X	X	X		
YES				YES	YES		
	>89.7	>89.7				>89.7	>89.7
	>85.7	>85.7				>85.7	>85.7
	NA	NA				NA	NA
	>9.0	>9.0				>9.0	>9.0
	>165	>165				>165	>165
	>23	>23				>23	>23
	>23	>23				>23	>23
	>3.0	>3.0				>3.0	>3.0
	<10	<10				<10	<10
	>18.5	>18.5				>18.5	>18.5
	>55	>55				>55	>55
	>5.0	>5.0				>5.0	>5.0
	<60	<60				<60	<60
	NA	NA					
>70			>70	>70	>70		
>73			>73	>73	>73		
>1.35			>1.35	>1.35	>1.35		
>15			>15	>15	>15		
>25			>25	>25	>25		
<70			<70	<70	<70		
<1.0			<1.0	<1.0	<1.0		
<1/16			<1/16	<1/16	<1/16		
>1700			>1700	>1700	>1700		
>20			>20	>20	>20		
>23			>23	>23	>23		
>15			>15	>15	>15		
200-215			200-215	200-215	200-215		
<1.0			<1.0	<1.0	<1.0		
CLASS A	CLASS C	CLASS C	CLASS A	CLASS A	CLASS A	CLASS C	CLASS C
PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
80	80	60	80	60	60	60	60
			CLASS 4				
ER-6796							
X							

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	IKO MANUFACTURING INC.
2. PRODUCT NAME	SKYLINE 25
3. PRODUCT DESCRIPTION Reinforcing (organic/fiberglass/polyglass)	ORGANIC
4. COMPLIES WITH:	
4A. ASTM D 225-00 <i>Standard Specification for Asphalt Shingles (Organic Felt) Surfaced with Mineral Granules</i> (indicate type or NA)	
Type I -- Uniform or nonuniform thickness shingles of any style	
Type II -- Thick butt, square tab, strip shingles	
Type III -- Uniform or nonuniform thickness shingles of any style	
4B. ASTM D 3018-00 <i>Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules</i> (indicate type or NA)	
Type I -- Self-sealing	
Type II -- Non-self-sealing	
4C. ASTM D 3462-00 <i>Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules</i> (YES/NO/NA)	
5A. MASSES OF ASPHALT SHINGLES: ORGANIC SHINGLES	
Average net mass per unit area, min, lb/100 ft ²	Type I: 95.0; Type II: 95.0; Type III: 89.7 >89.7
Net mass of weather-exposed portion (ea. bundle) min, lb/100 ft ²	Type I: 91.0; Type II: 110.0; Type III: 85.7 >85.7
Net mass of upper portion (ea bundle), min, lb/100 ft ²	Type I: NA; Type II: 72.0; Type III: NA NA
Mass of desaturated, moisture-free felt, min, lb/100 ft ²	Type I: 11.0; Type II: 11.0; Type III: 9.0 >9.0
Mass of asphalt saturant based on the mass of the dry felt, min %	165 >165
Mass of weather-side coating on the weather-exposed portion, min, lb/100 ft ²	Type I: 23.0; Type II: 30.0; Type III: 23.0 >23
Mass of weather-side coating on the upper portion, min lb/100ft ²	Type I: 23.0; Type II: 15.0; Type III: 23.0 >23
Mass of reverse-side coating, min, lb/100 ft ²	3.0 >3.0
Ash of the desaturated felt, max %	Type I: NA; Type II: 10.0; Type III: 10 <10
Mass of weather-side mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, min, lb/100 ft ²	18.5 >18.5
Mass of weather-side mineral matter retained on a No. 20 sieve, based on the mass passing a No. 6 sieve and retained on a No. 70 sieve, min, %	55.0 >55
Mass of weather-side mineral matter passing a No. 40 sieve, based on the mass of passing a No. 6 sieve, and retained on a No. 70 sieve, max %	5.0 >5.0
Mass of weather-side mineral matter passing a No. 70 sieve, based on the mass of the weather-side coating asphalt and the mineral matter passing the No. 70 sieve, max %	60.0 <60
Mass of total mineral matter including surfacing and stabilizer on both sides, based on the net mass of the finished product, min %	Type I: NA; Type II: 35.0; Type III: NA
5B. MASSES OF ASPHALT SHINGLES: FIBERGLASS SHINGLES	
Minimum net mass per area of shingles (individual bundle), lb/100 ft ² , min.	70.0
Average net mass per area of shingles (total sample), lb/100 ft ² , min.	73.0
Mass per area of mat, lb/100 ft ² , min.	1.35
Mass per area of asphalt, lb/100 ft ² , min.	15.0
Mass per area of mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, lb/100 ft ² , min	25.0
Mass percent of mineral matter passing a No. 70 sieve based on the total asphalt and mineral matter passing the No. 70 sieve, max.	70.0
6. PHYSICAL REQUIREMENTS: FIBERGLASS SHINGLES	
Behavior on heating	
Loss of volatile matter, % max.	1.5
Sliding of granular surfacing, in. min.	1/16
Tear strength, g min.	1700
Fastener pull-through resistance at 73 ±4 F, lbf, min	20
Fastener pull-through resistance at 32 ±4 F, lbf, min	23
Penetration of asphalt, 0.1mm (tested w/o mineral stabilizer) min.	15
Asphalt softening point, F (tested w/o mineral stabilizer) min/max	235 max; 190 min.
Weight of displaced granules, max.	1.0 g
7. FIRE/WIND/IMPACT RESISTANCE	
Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	CLASS C
Wind resistance, UL 997 or ASTM D3161 (pass/fail, or not tested)	PASS
Wind resistance (max. wind speed allowable)	60
Impact resistance, UL 2218 (Class 1, 2, 3, or 4)	
8. CODE ACCEPTANCE	
BOCA Evaluation Service, Inc. (report number)	
ICBO Evaluation Service, Inc. (report number)	
International Evaluation Service (report number)	
SBCCI Public Safety Testing & Evaluation Service, Inc. (report number)	
National Evaluation Service, Inc. (report number)	
Other agencies (agency & report identification number)	
7. SEE APPENDIX IF CHECKED	

Asphalt Shingles Part 2: Technical Data

IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	MALARKEY ROOFING COMPANY
ULTRA LOCK 25	MARATHON 20	MARATHON 25	MARATHON 30	CATHEDRAL XL	REGENCY	HIP & RIDGE	#202 DURA-SEAL
ORGANIC	FIBERGLASS	FIBERGLASS			FIBERGLASS		FIBERGLASS
X							
	X	X	X		X	X	X
	YES	YES	YES		YES	YES	
>89.7				>89.7			
>85.7				>85.7			
NA				NA			
>9.0				>9.0			
>165				>165			
>23				>23			
>23				>23			
>3.0				>3.0			
<10				<10			
>18.5				>18.5			
>55				>55			
>5.0				>5.0			
<60				<60			
	>70	>70	>70		>70	>70	
	>73	>73	>73		>73	>73	200
	>1.35	>1.35	>1.35		>1.35	>1.35	
	>15	>15	>15		>15	>15	
	>25	>25	>25		>25	>25	
	<70	<70	<70		<70	<70	
	<1.0	<1.0	<1.0		<1.0	<1.0	
	<1/16	<1/16	<1/16		<1/16	<1/16	
	>1700	>1700	>1700		>1700	>1700	
	>20	>20	>20		>20	>20	
	>23	>23	>23		>23	>23	
	>15	>15	>15		>15	>15	
	200-215	200-215	200-215		200-215	200-215	
	<1.0	<1.0	<1.0		<1.0	<1.0	
CLASS C	CLASS A	CLASS A	CLASS A	CLASS C	CLASS A	CLASS A	CLASS A
PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
80	60	60	60	60	80	60	60
	ER-5796	ER-5796	ER-5796				
	X	X	X				

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	MALARKEY ROOFING COMPANY	
2. PRODUCT NAME	#204 DURA-SEAL	
3. PRODUCT DESCRIPTION Reinforcing (organic/fiberglass/polyglass)	FIBERGLASS	
4. COMPLIES WITH:		
4A. ASTM D 225-00 <i>Standard Specification for Asphalt Shingles (Organic Felt) Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Uniform or nonuniform thickness shingles of any style		
Type II -- Thick butt, square tab, strip shingles		
Type III -- Uniform or nonuniform thickness shingles of any style		
4B. ASTM D 3018-00 <i>Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Self-sealing	X	
Type II -- Non-self-sealing		
4C. ASTM D 3462-00 <i>Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules</i> (YES/NO/NA)	YES	
5A. MASSES OF ASPHALT SHINGLES: ORGANIC SHINGLES		
Average net mass per unit area, min, lb/100 ft ²	Type I: 95.0; Type II: 95.0; Type III: 89.7	
Net mass of weather-exposed portion (ea. bundle) min, lb/100 ft ²	Type I: 91.0; Type II: 110.0; Type III: 85.7	
Net mass of upper portion (ea bundle), min, lb/100 ft ²	Type I: NA; Type II: 72.0; Type III: NA	
Mass of desaturated, moisture-free felt, min, lb/100 ft ²	Type I: 11.0; Type II: 11.0; Type III: 9.0	
Mass of asphalt saturant based on the mass of the dry felt, min %	165	
Mass of weather-side coating on the weather-exposed portion, min, lb/100 ft ²	Type I: 23.0; Type II: 30.0; Type III: 23.0	
Mass of weather-side coating on the upper portion, min lb/100ft ²	Type I: 23.0; Type II: 15.0; Type III: 23.0	
Mass of reverse-side coating, min, lb/100 ft ²	3.0	
Ash of the desaturated felt, max %	Type I: NA; Type II: 10.0; Type III: 10	
Mass of weather-side mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, min, lb/100 ft ²	18.5	
Mass of weather-side mineral matter retained on a No. 20 sieve, based on the mass passing a No. 6 sieve and retained on a No. 70 sieve, min, %	55.0	
Mass of weather-side mineral matter passing a No. 40 sieve, based on the mass of passing a No. 6 sieve, and retained on a No. 70 sieve, max %	5.0	
Mass of weather-side mineral matter passing a No. 70 sieve, based on the mass of the weather-side coating asphalt and the mineral matter passing the No. 70 sieve, max %	60.0	
Mass of total mineral matter including surfacing and stabilizer on both sides, based on the net mass of the finished product, min %	Type I: NA; Type II: 35.0; Type III: NA	
5B. MASSES OF ASPHALT SHINGLES: FIBERGLASS SHINGLES		
Minimum net mass per area of shingles (individual bundle), lb/100 ft ² , min.	70.0	
Average net mass per area of shingles (total sample), lb/100 ft ² , min.	73.0	235
Mass per area of mat, lb/100 ft ² , min.	1.35	
Mass per area of asphalt, lb/100 ft ² , min.	15.0	
Mass per area of mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, lb/100 ft ² , min	25.0	
Mass percent of mineral matter passing a No. 70 sieve based on the total asphalt and mineral matter passing the No. 70 sieve, max.	70.0	
6. PHYSICAL REQUIREMENTS: FIBERGLASS SHINGLES		
Behavior on heating		
Loss of volatile matter, % max.	1.5	
Sliding of granular surfacing, in. min.	1/16	
Tear strength, g min.	1700	
Fastener pull-through resistance at 73 ±4 F, lbf, min	20	
Fastener pull-through resistance at 32 ±4 F, lbf, min	23	
Penetration of asphalt, 0.1mm (tested w/o mineral stabilizer) min.	15	
Asphalt softening point, F (tested w/o mineral stabilizer) min/max	235 max; 190 min.	
Weight of displaced granules, max.	1.0 g	
7. FIRE/WIND/IMPACT RESISTANCE		
Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	CLASS A	
Wind resistance, UL 997 or ASTM D3161 (pass/fail, or not tested)	PASS	
Wind resistance (max. wind speed allowable)	80	
Impact resistance, UL 2218 (Class 1, 2, 3, or 4)		
8. CODE ACCEPTANCE		
BOCA Evaluation Service, Inc. (report number)		
ICBO Evaluation Service, Inc. (report number)		
International Evaluation Service (report number)		
SBCCI Public Safety Testing & Evaluation Service, Inc. (report number)		
National Evaluation Service, Inc. (report number)		
Other agencies (agency & report identification number)		
7. SEE APPENDIX IF CHECKED		

Asphalt Shingles Part 2: Technical Data

[illegible]

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	OWENS CORNING	
2. PRODUCT NAME	OAKRIDGE 30 SHADOW ARCHITECTURAL	
3. PRODUCT DESCRIPTION Reinforcing (organic/fiberglass/polyglass)	FIBERGLASS	
4. COMPLIES WITH:		
4A. ASTM D 225-00 <i>Standard Specification for Asphalt Shingles (Organic Felt) Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Uniform or nonuniform thickness shingles of any style		
Type II -- Thick butt, square tab, strip shingles		
Type III -- Uniform or nonuniform thickness shingles of any style		
4B. ASTM D 3018-00 <i>Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Self-sealing	X	
Type II -- Non-self-sealing		
4C. ASTM D 3462-00 <i>Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules</i> (YES/NO/NA)	YES	
5A. MASSES OF ASPHALT SHINGLES: ORGANIC SHINGLES		
Average net mass per unit area, min, lb/100 ft ²	Type I: 95.0; Type II: 95.0; Type III: 89.7	
Net mass of weather-exposed portion (ea. bundle) min, lb/100 ft ²	Type I: 91.0; Type II: 110.0; Type III: 85.7	
Net mass of upper portion (ea bundle), min, lb/100 ft ²	Type I: NA; Type II: 72.0; Type III: NA	
Mass of desaturated, moisture-free felt, min, lb/100 ft ²	Type I: 11.0; Type II: 11.0; Type III: 9.0	
Mass of asphalt saturant based on the mass of the dry felt, min %	165	
Mass of weather-side coating on the weather-exposed portion, min, lb/100 ft ²	Type I: 23.0; Type II: 30.0; Type III: 23.0	
Mass of weather-side coating on the upper portion, min lb/100ft ²	Type I: 23.0; Type II: 15.0; Type III: 23.0	
Mass of reverse-side coating, min, lb/100 ft ²	3.0	
Ash of the desaturated felt, max %	Type I: NA; Type II: 10.0; Type III: 10	
Mass of weather-side mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, min, lb/100 ft ²	18.5	
Mass of weather-side mineral matter retained on a No. 20 sieve, based on the mass passing a No. 6 sieve and retained on a No. 70 sieve, min, %	55.0	
Mass of weather-side mineral matter passing a No. 40 sieve, based on the mass of passing a No. 6 sieve, and retained on a No. 70 sieve, max %	5.0	
Mass of weather-side mineral matter passing a No. 70 sieve, based on the mass of the weather-side coating asphalt and the mineral matter passing the No. 70 sieve, max %	60.0	
Mass of total mineral matter including surfacing and stabilizer on both sides, based on the net mass of the finished product, min %	Type I: NA; Type II: 35.0; Type III: NA	
5B. MASSES OF ASPHALT SHINGLES: FIBERGLASS SHINGLES		
Minimum net mass per area of shingles (individual bundle), lb/100 ft ² , min.	70.0	70
Average net mass per area of shingles (total sample), lb/100 ft ² , min.	73.0	73
Mass per area of mat, lb/100 ft ² , min.	1.35	1.35
Mass per area of asphalt, lb/100 ft ² , min.	15.0	15
Mass per area of mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, lb/100 ft ² , min	25.0	25
Mass percent of mineral matter passing a No. 70 sieve based on the total asphalt and mineral matter passing the No. 70 sieve, max.	70.0	70
6. PHYSICAL REQUIREMENTS: FIBERGLASS SHINGLES		
Behavior on heating		
Loss of volatile matter, % max.	1.5	1.5
Sliding of granular surfacing, in. min.	1/16	1/16
Tear strength, g min.	1700	1700
Fastener pull-through resistance at 73 ±4 F, lbf, min	20	20
Fastener pull-through resistance at 32 ±4 F, lbf, min	23	23
Penetration of asphalt, 0.1mm (tested w/o mineral stabilizer) min.	15	15
Asphalt softening point, F (tested w/o mineral stabilizer) min/max	235 max; 190 min.	235
Weight of displaced granules, max.	1.0 g	1.0
7. FIRE/WIND/IMPACT RESISTANCE		
Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	CLASS A	
Wind resistance, UL 997 or ASTM D3161 (pass/fail, or not tested)	PASS	
Wind resistance (max. wind speed allowable)	80	
Impact resistance, UL 2218 (Class 1, 2, 3, or 4)		
8. CODE ACCEPTANCE		
BOCA Evaluation Service, Inc. (report number)		
ICBO Evaluation Service, Inc. (report number)	ER-5443	
International Evaluation Service (report number)		
SBCCI Public Safety Testing & Evaluation Service, Inc. (report number)		
National Evaluation Service, Inc. (report number)		
Other agencies (agency & report identification number)		
7. SEE APPENDIX IF CHECKED	X	

[illegible]

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	OWENS CORNING	
2. PRODUCT NAME	SUPREME 25 YEAR TRADITIONAL	
3. PRODUCT DESCRIPTION Reinforcing (organic/fiberglass/polyglass)	FIBERGLASS	
4. COMPLIES WITH:		
4A. ASTM D 225-00 <i>Standard Specification for Asphalt Shingles (Organic Felt) Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Uniform or nonuniform thickness shingles of any style		
Type II -- Thick butt, square tab, strip shingles		
Type III -- Uniform or nonuniform thickness shingles of any style		
4B. ASTM D 3018-00 <i>Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Self-sealing	X	
Type II -- Non-self-sealing		
4C. ASTM D 3462-00 <i>Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules</i> (YES/NO/NA)	YES	
5A. MASSES OF ASPHALT SHINGLES: ORGANIC SHINGLES		
Average net mass per unit area, min, lb/100 ft ²	Type I: 95.0; Type II: 95.0; Type III: 89.7	
Net mass of weather-exposed portion (ea. bundle) min, lb/100 ft ²	Type I: 91.0; Type II: 110.0; Type III: 85.7	
Net mass of upper portion (ea bundle), min, lb/100 ft ²	Type I: NA; Type II: 72.0; Type III: NA	
Mass of desaturated, moisture-free felt, min, lb/100 ft ²	Type I: 11.0; Type II: 11.0; Type III: 9.0	
Mass of asphalt saturant based on the mass of the dry felt, min %	165	
Mass of weather-side coating on the weather-exposed portion, min, lb/100 ft ²	Type I: 23.0; Type II: 30.0; Type III: 23.0	
Mass of weather-side coating on the upper portion, min lb/100ft ²	Type I: 23.0; Type II: 15.0; Type III: 23.0	
Mass of reverse-side coating, min, lb/100 ft ²	3.0	
Ash of the desaturated felt, max %	Type I: NA; Type II: 10.0; Type III: 10	
Mass of weather-side mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, min, lb/100 ft ²	18.5	
Mass of weather-side mineral matter retained on a No. 20 sieve, based on the mass passing a No. 6 sieve and retained on a No. 70 sieve, min, %	55.0	
Mass of weather-side mineral matter passing a No. 40 sieve, based on the mass of passing a No. 6 sieve, and retained on a No. 70 sieve, max %	5.0	
Mass of weather-side mineral matter passing a No. 70 sieve, based on the mass of the weather-side coating asphalt and the mineral matter passing the No. 70 sieve, max %	60.0	
Mass of total mineral matter including surfacing and stabilizer on both sides, based on the net mass of the finished product, min %	Type I: NA; Type II: 35.0; Type III: NA	
5B. MASSES OF ASPHALT SHINGLES: FIBERGLASS SHINGLES		
Minimum net mass per area of shingles (individual bundle), lb/100 ft ² , min.	70.0	70
Average net mass per area of shingles (total sample), lb/100 ft ² , min.	73.0	73
Mass per area of mat, lb/100 ft ² , min.	1.35	1.35
Mass per area of asphalt, lb/100 ft ² , min.	15.0	15
Mass per area of mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, lb/100 ft ² , min	25.0	25
Mass percent of mineral matter passing a No. 70 sieve based on the total asphalt and mineral matter passing the No. 70 sieve, max.	70.0	70
6. PHYSICAL REQUIREMENTS: FIBERGLASS SHINGLES		
Behavior on heating		
Loss of volatile matter, % max.	1.5	1.5
Sliding of granular surfacing, in. min.	1/16	1/16
Tear strength, g min.	1700	1700
Fastener pull-through resistance at 73 ±4 F, lbf, min	20	20
Fastener pull-through resistance at 32 ±4 F, lbf, min	23	23
Penetration of asphalt, 0.1mm (tested w/o mineral stabilizer) min.	15	15
Asphalt softening point, F (tested w/o mineral stabilizer) min/max	235 max; 190 min.	235
Weight of displaced granules, max.	1.0 g	1.0
7. FIRE/WIND/IMPACT RESISTANCE		
Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	CLASS A	
Wind resistance, UL 997 or ASTM D3161 (pass/fail, or not tested)	PASS	
Wind resistance (max. wind speed allowable)	80	
Impact resistance, UL 2218 (Class 1, 2, 3, or 4)		
8. CODE ACCEPTANCE		
BOCA Evaluation Service, Inc. (report number)		
ICBO Evaluation Service, Inc. (report number)	ER-5443	
International Evaluation Service (report number)		
SBCCI Public Safety Testing & Evaluation Service, Inc. (report number)		
National Evaluation Service, Inc. (report number)		
Other agencies (agency & report identification number)		
7. SEE APPENDIX IF CHECKED	X	

Asphalt Shingles Part 2: Technical Data

OWENS CORNING	OWENS CORNING	OWENS CORNING	OWENS CORNING	OWENS CORNING	OWENS CORNING	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS
SUPREME AR 25 YEAR TRADITIONAL	SUPREME (METRIC) 25 YR TRADITIONAL	CLASSIC 20 YEAR TRADITIONAL	CLASSIC AR 20 YEAR TRADITIONAL	CLASSIC (METRIC) 20 YR TRADITIONAL	GLASLOCK 25 YEAR INTERLOCKING	PREMIER ADVANTAGE	PREMIER 25 ALGAE BLOCK
FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS
X	X	X	X	X	X	X	X
YES	YES	NO	NO	NO	YES		
70	70	70	70	70	70	160	105
73	73	73	73	73	73	170	112
1.35	1.35	1.35	1.35	1.35	1.35	2.3	2.3
15	15	15	15	15	15	28	19
25	25	25	25	25	25	83	35
70	70	70	70	70	70	<70	<70
1.5	1.5	1.5	1.5	1.5	1.5	<1.5	<1.5
1/16	1/16	1/16	1/16	1/16	1/16	<1/16	<1/16
1700	1700	1700	1700	1700	1700	>1700	>1700
20	20	20	20	20	20	>20	>20
23	23	23	23	23	23	>23	>23
15	15	15	15	15	15	>15	>15
235	235	235	235	235	235	190-235	190-235
1.0	1.0	1.0	1.0	1.0	1.0	<1.0	<1.0
CLASS A	CLASS A	CLASS A	CLASS A	CLASS A	CLASS A	CLASS A	CLASS A
PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
80	80	80	80	80	80	110	110
ER-5443	ER-5443					ER-5600	ER-5600
METRO-DADE 97-0715.04							
X	X	X	X	X	X	X	X

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	PABCO ROOFING PRODUCTS	
2. PRODUCT NAME	PREMIER 30 ALGAE BLOCK	
3. PRODUCT DESCRIPTION Reinforcing (organic/fiberglass/polyglass)	FIBERGLASS	
4. COMPLIES WITH:		
4A. ASTM D 225-00 <i>Standard Specification for Asphalt Shingles (Organic Felt) Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Uniform or nonuniform thickness shingles of any style		
Type II -- Thick butt, square tab, strip shingles		
Type III -- Uniform or nonuniform thickness shingles of any style		
4B. ASTM D 3018-00 <i>Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Self-sealing	X	
Type II -- Non-self-sealing		
4C. ASTM D 3462-00 <i>Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules</i> (YES/NO/NA)		
5A. MASSES OF ASPHALT SHINGLES: ORGANIC SHINGLES		
Average net mass per unit area, min, lb/100 ft ²	Type I: 95.0; Type II: 95.0; Type III: 89.7	
Net mass of weather-exposed portion (ea. bundle) min, lb/100 ft ²	Type I: 91.0; Type II: 110.0; Type III: 85.7	
Net mass of upper portion (ea bundle), min, lb/100 ft ²	Type I: NA; Type II: 72.0; Type III: NA	
Mass of desaturated, moisture-free felt, min, lb/100 ft ²	Type I: 11.0; Type II: 11.0; Type III: 9.0	
Mass of asphalt saturant based on the mass of the dry felt, min %	165	
Mass of weather-side coating on the weather-exposed portion, min, lb/100 ft ²	Type I: 23.0; Type II: 30.0; Type III: 23.0	
Mass of weather-side coating on the upper portion, min lb/100ft ²	Type I: 23.0; Type II: 15.0; Type III: 23.0	
Mass of reverse-side coating, min, lb/100 ft ²	3.0	
Ash of the desaturated felt, max %	Type I: NA; Type II: 10.0; Type III: 10	
Mass of weather-side mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, min, lb/100 ft ²	18.5	
Mass of weather-side mineral matter retained on a No. 20 sieve, based on the mass passing a No. 6 sieve and retained on a No. 70 sieve, min, %	55.0	
Mass of weather-side mineral matter passing a No. 40 sieve, based on the mass of passing a No. 6 sieve, and retained on a No. 70 sieve, max %	5.0	
Mass of weather-side mineral matter passing a No. 70 sieve, based on the mass of the weather-side coating asphalt and the mineral matter passing the No. 70 sieve, max %	60.0	
Mass of total mineral matter including surfacing and stabilizer on both sides, based on the net mass of the finished product, min %	Type I: NA; Type II: 35.0; Type III: NA	
5B. MASSES OF ASPHALT SHINGLES: FIBERGLASS SHINGLES		
Minimum net mass per area of shingles (individual bundle), lb/100 ft ² , min.	70.0	115
Average net mass per area of shingles (total sample), lb/100 ft ² , min.	73.0	125
Mass per area of mat, lb/100 ft ² , min.	1.35	2.3
Mass per area of asphalt, lb/100 ft ² , min.	15.0	23
Mass per area of mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, lb/100 ft ² , min	25.0	41
Mass percent of mineral matter passing a No. 70 sieve based on the total asphalt and mineral matter passing the No. 70 sieve, max.	70.0	<70
6. PHYSICAL REQUIREMENTS: FIBERGLASS SHINGLES		
Behavior on heating		
Loss of volatile matter, % max.	1.5	<1.5
Sliding of granular surfacing, in. min.	1/16	<1/16
Tear strength, g min.	1700	>1700
Fastener pull-through resistance at 73 ±4 F, lbf, min	20	>20
Fastener pull-through resistance at 32 ±4 F, lbf, min	23	>23
Penetration of asphalt, 0.1mm (tested w/o mineral stabilizer) min.	15	>15
Asphalt softening point, F (tested w/o mineral stabilizer) min/max	235 max; 190 min.	190-235
Weight of displaced granules, max.	1.0 g	<1.0
7. FIRE/WIND/IMPACT RESISTANCE		
Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	CLASS A	
Wind resistance, UL 997 or ASTM D3161 (pass/fail, or not tested)	PASS	
Wind resistance (max. wind speed allowable)	110	
Impact resistance, UL 2218 (Class 1, 2, 3, or 4)		
8. CODE ACCEPTANCE		
BOCA Evaluation Service, Inc. (report number)		
ICBO Evaluation Service, Inc. (report number)	ER-5600	
International Evaluation Service (report number)		
SBCCI Public Safety Testing & Evaluation Service, Inc. (report number)		
National Evaluation Service, Inc. (report number)		
Other agencies (agency & report identification number)		
7. SEE APPENDIX IF CHECKED	X	

Asphalt Shingles Part 2: Technical Data

PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS
PREMIER 25 YEAR	PREMIER 30 YEAR	PREMIER 40 YEAR	SG-25	GG-20	PRECISE	SHADOW CAP 4	GLASS-SEAL
FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS
X	X	X	X	X	X		X
							NO
105	115	125	96	82	115	85	
112	125	135	98	87	125	91	
2.3	2.3	2.3	1.9	1.9	2.3	1.9	
19	23	27	19	16	23	16	
35	41	43	34	32	41	34	
<70	<70	<70	<70	67	<70	<70	
<1.5	<1.5	<1.5	<1.5		<1.5	<1.5	
<1/16	<1/16	<1/16	<1/16		<1/16	<1/16	
>1700	>1700	>1700	>1700		>1700	>1700	
>20	>20	>20	>20		>20	>20	
>23	>23	>23	>23		>23	>23	
>15	>15	>15	>15		>15	>15	
190-235	190-235	190-235	190-235		190-235	190-235	
<1.0	<1.0	<1.0	<1.0		<1.0	<1.0	
CLASS A	CLASS A	CLASS A	CLASS A	CLASS A	CLASS A	CLASS A	CLASS A
PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
110	110	110	110	110	110	110	
ER-5600	ER-5600	ER-5600	ER-5600				
					UL / D3462 R 11217		
X	X	X	X	X	X		

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	TAMKO ROOFING PRODUCTS	
2. PRODUCT NAME	ELITE GLASS-SEAL	
3. PRODUCT DESCRIPTION Reinforcing (organic/fiberglass/polyglass)	FIBERGLASS	
4. COMPLIES WITH:		
4A. ASTM D 225-00 <i>Standard Specification for Asphalt Shingles (Organic Felt) Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Uniform or nonuniform thickness shingles of any style		
Type II -- Thick butt, square tab, strip shingles		
Type III -- Uniform or nonuniform thickness shingles of any style		
4B. ASTM D 3018-00 <i>Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Self-sealing	X	
Type II -- Non-self-sealing		
4C. ASTM D 3462-00 <i>Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules</i> (YES/NO/NA)	YES	
5A. MASSES OF ASPHALT SHINGLES: ORGANIC SHINGLES		
Average net mass per unit area, min, lb/100 ft ²	Type I: 95.0; Type II: 95.0; Type III: 89.7	
Net mass of weather-exposed portion (ea. bundle) min, lb/100 ft ²	Type I: 91.0; Type II: 110.0; Type III: 85.7	
Net mass of upper portion (ea bundle), min, lb/100 ft ²	Type I: NA; Type II: 72.0; Type III: NA	
Mass of desaturated, moisture-free felt, min, lb/100 ft ²	Type I: 11.0; Type II: 11.0; Type III: 9.0	
Mass of asphalt saturant based on the mass of the dry felt, min %	165	
Mass of weather-side coating on the weather-exposed portion, min, lb/100 ft ²	Type I: 23.0; Type II: 30.0; Type III: 23.0	
Mass of weather-side coating on the upper portion, min lb/100ft ²	Type I: 23.0; Type II: 15.0; Type III: 23.0	
Mass of reverse-side coating, min, lb/100 ft ²	3.0	
Ash of the desaturated felt, max %	Type I: NA; Type II: 10.0; Type III: 10	
Mass of weather-side mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, min, lb/100 ft ²	18.5	
Mass of weather-side mineral matter retained on a No. 20 sieve, based on the mass passing a No. 6 sieve and retained on a No. 70 sieve, min, %	55.0	
Mass of weather-side mineral matter passing a No. 40 sieve, based on the mass of passing a No. 6 sieve, and retained on a No. 70 sieve, max %	5.0	
Mass of weather-side mineral matter passing a No. 70 sieve, based on the mass of the weather-side coating asphalt and the mineral matter passing the No. 70 sieve, max %	60.0	
Mass of total mineral matter including surfacing and stabilizer on both sides, based on the net mass of the finished product, min %	Type I: NA; Type II: 35.0; Type III: NA	
5B. MASSES OF ASPHALT SHINGLES: FIBERGLASS SHINGLES		
Minimum net mass per area of shingles (individual bundle), lb/100 ft ² , min.	70.0	>70
Average net mass per area of shingles (total sample), lb/100 ft ² , min.	73.0	>73
Mass per area of mat, lb/100 ft ² , min.	1.35	>1.35
Mass per area of asphalt, lb/100 ft ² , min.	15.0	>15
Mass per area of mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, lb/100 ft ² , min	25.0	>25
Mass percent of mineral matter passing a No. 70 sieve based on the total asphalt and mineral matter passing the No. 70 sieve, max.	70.0	<70
6. PHYSICAL REQUIREMENTS: FIBERGLASS SHINGLES		
Behavior on heating		
Loss of volatile matter, % max.	1.5	<1.5
Sliding of granular surfacing, in. min.	1/16	>1/16
Tear strength, g min.	1700	>1700
Fastener pull-through resistance at 73 ±4 F, lbf, min	20	>20
Fastener pull-through resistance at 32 ±4 F, lbf, min	23	>23
Penetration of asphalt, 0.1mm (tested w/o mineral stabilizer) min.	15	>15
Asphalt softening point, F (tested w/o mineral stabilizer) min/max	235 max; 190 min.	>190 <235
Weight of displaced granules, max.	1.0 g	<1.0
7. FIRE/WIND/IMPACT RESISTANCE		
Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	CLASS A	
Wind resistance, UL 997 or ASTM D3161 (pass/fail, or not tested)	PASS	
Wind resistance (max. wind speed allowable)		
Impact resistance, UL 2218 (Class 1, 2, 3, or 4)		
8. CODE ACCEPTANCE		
BOCA Evaluation Service, Inc. (report number)		
ICBO Evaluation Service, Inc. (report number)	ER-5375	
International Evaluation Service (report number)		
SBCCI Public Safety Testing & Evaluation Service, Inc. (report number)		
National Evaluation Service, Inc. (report number)		
Other agencies (agency & report identification number)		
7. SEE APPENDIX IF CHECKED		

Asphalt Shingles Part 2: Technical Data

TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS
GLASS-SEAL AR	ELITE GLASS-SEAL AR	TAM-LOC GLASS	HERITAGE 25	HERITAGE 25 AR	HERITAGE 30	HERITAGE 30 AR	HERITAGE 40
FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS
	X	X	X	X	X	X	
YES	YES	YES	NO	NO	YES	YES	
>70	>70	>70			>70	>70	>70
>73	>73	>73			>73	>73	>73
>1.35	>1.35	>1.35			>1.35	>1.35	>1.35
>15	>15	>15			>15	>15	>15
>25	>25	>25			>25	>25	>25
<70	<70	<70			<70	<70	<70
<1.5	<1.5	<1.5			<1.5	<1.5	<1.5
>1/16	>1/16	>1/16			>1/16	>1/16	>1/16
>1700	>1700	>1700			>1700	>1700	>1700
>20	>20	>20			>20	>20	>20
>23	>23	>23			>23	>23	>23
	>15	>15			>15	>15	>15
>190 <235	>190 <235	>190 <235			>190 <235	>190 <235	>190 <235
<1.0	<1.0	<1.0			<1.0	<1.0	<1.0
CLASS A PASS	CLASS A PASS	CLASS A PASS	CLASS A PASS	CLASS A PASS	CLASS A PASS	CLASS A PASS	CLASS A PASS
		ER-5375			ER-5375		ER-5375

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	TAMKO ROOFING PRODUCTS	
2. PRODUCT NAME	HERITAGE 40 AR	
3. PRODUCT DESCRIPTION Reinforcing (organic/fiberglass/polyglass)	FIBERGLASS	
4. COMPLIES WITH:		
4A. ASTM D 225-00 <i>Standard Specification for Asphalt Shingles (Organic Felt) Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Uniform or nonuniform thickness shingles of any style		
Type II -- Thick butt, square tab, strip shingles		
Type III -- Uniform or nonuniform thickness shingles of any style		
4B. ASTM D 3018-00 <i>Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules</i> (indicate type or NA)		
Type I -- Self-sealing	X	
Type II -- Non-self-sealing		
4C. ASTM D 3462-00 <i>Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules</i> (YES/NO/NA)	YES	
5A. MASSES OF ASPHALT SHINGLES: ORGANIC SHINGLES		
Average net mass per unit area, min, lb/100 ft ²	Type I: 95.0; Type II: 95.0; Type III: 89.7	
Net mass of weather-exposed portion (ea. bundle) min, lb/100 ft ²	Type I: 91.0; Type II: 110.0; Type III: 85.7	
Net mass of upper portion (ea bundle), min, lb/100 ft ²	Type I: NA; Type II: 72.0; Type III: NA	
Mass of desaturated, moisture-free felt, min, lb/100 ft ²	Type I: 11.0; Type II: 11.0; Type III: 9.0	
Mass of asphalt saturant based on the mass of the dry felt, min %	165	
Mass of weather-side coating on the weather-exposed portion, min, lb/100 ft ²	Type I: 23.0; Type II: 30.0; Type III: 23.0	
Mass of weather-side coating on the upper portion, min lb/100ft ²	Type I: 23.0; Type II: 15.0; Type III: 23.0	
Mass of reverse-side coating, min, lb/100 ft ²	3.0	
Ash of the desaturated felt, max %	Type I: NA; Type II: 10.0; Type III: 10	
Mass of weather-side mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, min, lb/100 ft ²	18.5	
Mass of weather-side mineral matter retained on a No. 20 sieve, based on the mass passing a No. 6 sieve and retained on a No. 70 sieve, min, %	55.0	
Mass of weather-side mineral matter passing a No. 40 sieve, based on the mass of passing a No. 6 sieve, and retained on a No. 70 sieve, max %	5.0	
Mass of weather-side mineral matter passing a No. 70 sieve, based on the mass of the weather-side coating asphalt and the mineral matter passing the No. 70 sieve, max %	60.0	
Mass of total mineral matter including surfacing and stabilizer on both sides, based on the net mass of the finished product, min %	Type I: NA; Type II: 35.0; Type III: NA	
5B. MASSES OF ASPHALT SHINGLES: FIBERGLASS SHINGLES		
Minimum net mass per area of shingles (individual bundle), lb/100 ft ² , min.	70.0	>70
Average net mass per area of shingles (total sample), lb/100 ft ² , min.	73.0	>73
Mass per area of mat, lb/100 ft ² , min.	1.35	>1.35
Mass per area of asphalt, lb/100 ft ² , min.	15.0	>15
Mass per area of mineral matter passing a No. 6 sieve and retained on a No. 70 sieve, lb/100 ft ² , min	25.0	>25
Mass percent of mineral matter passing a No. 70 sieve based on the total asphalt and mineral matter passing the No. 70 sieve, max.	70.0	<70
6. PHYSICAL REQUIREMENTS: FIBERGLASS SHINGLES		
Behavior on heating		
Loss of volatile matter, % max.	1.5	<1.5
Sliding of granular surfacing, in. min.	1/16	>1/16
Tear strength, g min.	1700	>1700
Fastener pull-through resistance at 73 ±4 F, lbf, min	20	>20
Fastener pull-through resistance at 32 ±4 F, lbf, min	23	>23
Penetration of asphalt, 0.1mm (tested w/o mineral stabilizer) min.	15	>15
Asphalt softening point, F (tested w/o mineral stabilizer) min/max	235 max; 190 min.	>190 <235
Weight of displaced granules, max.	1.0 g	<1.0
7. FIRE/WIND/IMPACT RESISTANCE		
Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	CLASS A	
Wind resistance, UL 997 or ASTM D3161 (pass/fail, or not tested)	PASS	
Wind resistance (max. wind speed allowable)		
Impact resistance, UL 2218 (Class 1, 2, 3, or 4)		
8. CODE ACCEPTANCE		
BOCA Evaluation Service, Inc. (report number)		
ICBO Evaluation Service, Inc. (report number)		
International Evaluation Service (report number)		
SBCCI Public Safety Testing & Evaluation Service, Inc. (report number)		
National Evaluation Service, Inc. (report number)		
Other agencies (agency & report identification number)		
7. SEE APPENDIX IF CHECKED		

TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS	TAMKO ROOFING PRODUCTS
HERITAGE M25	HERITAGE M30	HERITAGE M40	RELIANCE 25	HERITAGE WINDFIGHTER	ASTM HERITAGE 25 AR	HERITAGE STORMFIGHTER AR
FIBERGLASS	FIBERGLASS	FIBERGLASS	ORGANIC	FIBERGLASS		
X	X	X	NA	X	X	X
NO	YES	YES	NA	YES	YES	YES
			>89.7			
			>85.7			
			NA			
			>9			
			>165			
			>23			
			>23			
			>3			
			<10			
			>18.5			
			>55			
			<5			
			<60			
	>70			>70	>70	>70
	>73			>73	>73	>73
	>1.35			>1.35	>1.35	>1.35
	>15			>15	>15	>15
	>25			>25	>25	>25
	<70			<70	<70	<70
	<1.5			<1.5	<1.5	<1.5
	>1/16			>1/16	>1/16	>1/16
	>1700			>1700	>1700	>1700
	>20			>20	>20	>20
	>23			>23	>23	>23
	>15			>15	>15	>15
	>190 <235			190-235	190-235	190-235
	<1.0			<1.0	<1.0	<1.0
CLASS A PASS	CLASS A PASS		CLASS C PASS	CLASS A PASS	CLASS A PASS	CLASS A PASS
						130
	ER-5375	ER-5375		ER-5375		
						DADE COUNTY 96-0228.07

Asphalt Shingle Warranties

1. Identity of issuing entity	Atlas Roofing Corporation	CertainTeed Corporation	Elk Corporation of Alabama or Elk Corporation of Texas
2. Title, original publication date, and identifying symbol, if any	"Limited Warranty Shingles and Roll Roofing Products,"; June 1997	"Asphalt Shingle Products Limited Warranty," 11/01; 20-20-1821	"ELK Hip and Ridge Limited Warranty," March 2001, HRWAR 3/01
3. Products covered	StormMaster LM, StormMaster ST, Pinnacle 40, Pinnacle 30, GlassMaster 25, GlassMaster 25 Alpine, GlassMaster 25 Matterhorn, GlassMaster 20, GlassMaster T-LOK, Chalet, Stratford, Legend, WeatherMaster ST, WeatherMaster 20, WeatherMaster T-LOK and MOD 90 MSR	Grand Manor Shingle, Carriage House Shingle, Presidential TL, Landmark TL, Presidential Shake (and AR), Independence Shingle (and AR), Landmark 40 (and AR), Hatteras, Woodscape 40, Hallmark Shingle, Landmark 30 (and AR), Custom Sealdon 30, XT 30 (and AR), Woodscape 30, Landmark 25 (and AR), Classic Horizon Shingle, New Horizon Shingle, Hearthstead, Custom Lok 25, XT 25 (and AR), Sealdon 25, Woodscape 25, Firehalt (and AR), Seal King 25, Jet 25, CT 20 (and AR), Firecreek	ELK RidgeCrest Vented High Profile Ridge, Ridgecrest High Profile Hip & Ridge, Seal-A-Ridge with formula FLX, Z ridge and other Elk hip and ridge shingles
4. Scope of coverage	Atlas warrants the roofing products are free from manufacturing defects, which would reduce the usable life of the product. Atlas warrants that its algae resistant shingles (i.e., StormMaster, Pinnacle 40, Pinnacle 30, GlassMaster 25, WeatherMaster ST, Chalet and Legend) will remain free of obvious and unsightly discoloration due to algae growth.	CertainTeed warrants that its asphalt roofing shingles will be free from manufacturing defects. In addition, CertainTeed warrants that shingles sold as algae resistant will remain free from algae growth which adversely affects overall appearance.	Elk warrants that the Elk hip and ridge shingles are free from defects in materials or manufacturing workmanship that would adversely affect performance and, when manufactured with StainGuard treatment will inhibit the discoloration of roofing granules caused by growth of algae. The StainGuard warranty is only available in Alabama, Arkansas, Georgia, Florida, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas and Virginia.
4a. Does the warranty provide coverage for defects in manufacture?	Yes	Yes	Yes
4b. Does the warranty provide coverage for defects in application?	No	No	No
4c. Does the warranty limit coverage to leakage and, if no, what defects or conditions other than leakage are covered?	No; warranty covers manufacturing defects that would reduce the usable life of the shingles and algae resistance.	No; warranty covers manufacturing defects and wind damage and algae resistance for shingles sold as algae resistant.	No; warranty covers manufacturing defects that affect performance, algae resistance and wind damage
4d. Does the warranty provide coverage for flashings, metal work, or related work that may be affected and/or need to be repaired or removed?	No	No	No
5. Length of coverage	For Manufacturing Defects: 40 yrs: StormMaster LM, Pinnacle 40; 30 yrs: StormMaster ST, Pinnacle 30; 25 yrs: GlassMaster 25, GlassMaster 25 Alpine, GlassMaster, Matterhorn, GlassMaster T-LOK, Chalet, Stratford, Legend, WeatherMaster ST, WeatherMaster T-LOK; 20 yrs: GlassMaster 20, WeatherMaster 20; 10 yrs: MOD 90 MSR For Algae Resistance: 10 years; For Wind Coverage: 5 years	For Manufacturing Defects: Lifetime: Grand Manor Shingle, Carriage House Shingle, Presidential TL, Landmark TL, Presidential Shake (and AR), Independence Shingle (and AR), Landmark 40 (and AR), Hatteras, Woodscape 40 30 years: Hallmark Shingle, Landmark 30 (and AR), Custom Sealdon 30, XT 30 (and AR), Woodscape 30 25 years: Landmark 25 (and AR), Classic Horizon Shingle, New Horizon Shingle, Hearthstead, Custom Lok 25, XT 25 (and AR), Sealdon 25, Woodscape 25, Firehalt (and AR), Seal King 25, Jet 25 20 yrs: CT 20 (and AR), Firecreek 10 years: Any shingle applied to an inadequately vented roof deck (except for certain premium shingles installed on commercial buildings - See item no. (9)) For Algae Resistance: Presidential Shake, Landmark TL: 15 years Independence Shingle, Landmark 40, Hatteras, Landmark 30, XT 30, Landmark 25, XT 25, Firehalt, CT 20: 10 years For Wind Damage: Grand Manor Shingle, Carriage House Shingle, Presidential TL, Landmark TL, Hatteras: 10 years All others: 5 years	For Manufacturing Defects: for the duration of the warranty applicable to the primary shingles installed on sloped surfaces of the same building where the hip and ridge shingles are installed. If the primary shingles carry no warranty or the duration cannot be determined, the warranty on hip and ridge shall be 25 years. For Algae Resistance (if StainGuard treatment): 10 years For Wind Damage: 5 years If warranty is transferred to a subsequent building owner more than one (1) year after the original application, warranty is limited to five (5) years from the date of transfer and is prorated. (See item 15 below)
5a. Is the warranty prorated?	Yes	Yes	Yes
5b. When does the prorating begin?	After 5 yrs.: StormMaster LM, Pinnacle 40, Pinnacle 30 After 3 yrs.: StormMaster ST, GlassMaster 25, GlassMaster 25 Alpine, GlassMaster 25 Matterhorn, GlassMaster 20, GlassMaster T-LOK, Chalet, Stratford, Legend, WeatherMaster ST, WeatherMaster 20, WeatherMaster T-LOK After 1 yr: MOD 90 MSR	After ten (10) years: Grand Manor Shingle, Carriage House Shingle, Presidential TL, Presidential Shake, Landmark TL After five (5) years: Independence Shingle, Landmark 40, Hatteras, Woodscape 40, Hallmark Shingle, Landmark 30, Custom Sealdon 30, XT 30, Woodscape 30, Landmark 25, Classic Horizon Shingle, Hearthstead, Custom Lok 25, Sealdon 25, Woodscape 25, Firehalt, Seal King After four (4) years: Jet 25 After three (3) years: CT 20, Firecreek	After five (5) years
5c. What is the prorating formula?	StormMaster LM, Pinnacle 40: After initial five years, warranty is reduced by 1/480 for each month since original application (so that at the beginning of the sixth year, warranty would be reduced by 60/480). Pinnacle 30: After initial five years, warranty is reduced by 1/360 for each month since original application (so that at the beginning of the sixth year, warranty would be reduced by 60/360). StormMaster ST, GlassMaster 25 Alpine, GlassMaster 25 Matterhorn: After 3 yrs, warranty is reduced by 1/360 for each month since original application (so that at the beginning of the fourth year, warranty would be reduced by 36/360). GlassMaster 25T-LOK, Chalet, Stratford, Legend, WeatherMaster ST, WeatherMaster T-LOK: After initial three years, warranty is reduced by 1/360 for each month since original application (so that at the beginning of the fourth year, warranty would be reduced by 36/360). GlassMaster 20, WeatherMaster 20: After initial three years, warranty is reduced by 1/240 for each month since original application (so that at the beginning of the fourth year, warranty would be reduced by 36/240). MOD 90 MSR: After first year, warranty is reduced by 1/120 for each month since original application (so that at the beginning of the second year, warranty would be reduced by 12/120).	Grand Manor Shingle, Carriage House Shingle, Presidential TL, Landmark TL: After ten years, warranty is reduced by 1/480 for each month since original application until the 32 nd year after application at which time the reduction figure will remain at 384/480 or 20% of the total maximum liability. Presidential Shake: After ten years, warranty is reduced by 1/480 for each month since original application (so that at the beginning of the 11 th year, warranty is reduced by 120/480). Independence Shingle, Landmark 40, Hatteras, Woodscape 40: After five years, warranty is reduced by 1/480 for each month since original application (so that at the beginning of the 6 th year, warranty is reduced by 60/480). Hallmark Shingle, Landmark 30, Custom Sealdon 30, XT 30, Woodscape 30: After five years, warranty is reduced by 1/360 for each month since original application (so that at the beginning of the 6 th year, warranty is reduced by 60/360). Landmark 25, Classic Horizon Shingle, New Horizon Shingle, Hearthstead, Custom Lok 25, XT 25, Sealdon 25, Woodscape 25, Firehalt, Seal King 25: After five years, warranty is reduced by 1/360 for each month since original application (so that at the beginning of the 6 th year, warranty is reduced by 60/360). Jet 25: After four years, warranty is reduced by 1/300 for each month since original application (so that at the beginning of the 5 th year, warranty is reduced by 48/300). CT 20, Firecreek: After three years, warranty is reduced by 1/240 for each month since original application (so that at the beginning of the 4 th year, warranty is reduced by 36/240). Any shingles applied to an inadequately vented roof deck: Warranty is reduced by 1/120 for each month starting at completion of original application.	Warranty is prorated in the same manner as the primary shingles used in the installation
6. Nature of remedy	Atlas is liable for cost to repair or replace defectively manufactured shingles. For algae resistant shingles, Atlas sole and only liability shall be to pay the reasonable cost of repair or replacement subject to prorating. During the initial five, three, or one year period (depending upon the type of shingle), the maximum repair or replacement cost to Atlas shall be the replacement cost of those shingles exhibiting discoloration due to algae, including replacement installation costs. For the remainder of the warranty, the maximum repair or replacement cost to Atlas shall be the replacement cost of those shingles exhibiting discoloration, in proportion to the unexpired warranty period, excluding all installation costs	For the nonprorated period (3, 4, 5 or 10 years depending upon the shingle), CertainTeed, at no charge, will repair or replace, at its option, any shingles proven to be defective, including labor, excluding costs of tear-off and disposal and flashing and metal work, except for Grand Manor Shingle, Carriage House Shingle, Presidential TL and Landmark TL, for which the cost of tear-off and disposal is covered. After the nonprorated period, CertainTeed will contribute a prorated amount toward the cost of repairing or replacing defective shingles, exclusive of costs of labor, tear-off and disposal. For algae resistant shingles, CertainTeed reserves the right to clean the algae stains rather than repair or replace the contaminated shingles. In instances in which CertainTeed has agreed to pay the cost of labor required to repair, replace, or clean defective or contaminated shingles, CertainTeed will provide reimbursement only upon receipt of a copy of the contractor's invoice or written evidence of the completion of such work which CertainTeed, in its sole discretion, deems acceptable	For Manufacturing Defects: For warranty claims of original owners, Elk, at its sole discretion, shall either (1) pay the reasonable replacement cost of defective shingles and application labor, (2) provide replacement shingles only or pay the reasonable cost of replacement shingles of similar design, or (3) pay the reasonable cost for repair of the shingles. For warranty claims of transferees, Elk, at its sole discretion, shall either (1) pay the reasonable replacement cost of defective shingles, without application labor, or (2) pay the reasonable cost for replacement shingles of a similar design without application labor or (3) pay the reasonable cost for repair of the defective shingles. For StainGuard Resistance: If shingles are manufactured, labeled and sold with StainGuard protection, then Elk warrants against discoloration of roofing granules caused by growth of algae for 10 years. Elk's obligation is to pay the reasonable cost of commercially cleaning or treating shingles that have become discolored or, if Elk elects, replacing discolored shingles. Owner is responsible to find, hire and complete treatment by a qualified professional as recommended by Elk and the cleaning professional will have sole responsibility for completing such treatment in a competent manner
6a. Does the warranty provide for furnishing of replacement shingles?	Yes	Yes	Yes
6b. Does the warranty provide for labor to install replacement shingles?	For the first five years for StormMaster LM, Pinnacle 40 and Pinnacle 30, for the first three years for StormMaster ST, GlassMaster 25, GlassMaster 25 Alpine, GlassMaster 25 Matterhorn, GlassMaster 20, GlassMaster T-LOK, Chalet, Legend, WeatherMaster ST, WeatherMaster 20 and WeatherMaster T-LOK, and for the first year for MOD 90 MSR, warranty covers replacement application cost, exclusive of metal work, flashing or other work. For the balance of the warranty, replacement installation costs are excluded.	Yes, during the nonprorated period. No, after the nonprorated period	Yes for original owner; no for transferees

6c.	Does the warranty provide for labor to remove defective shingles?	For the first five years for StormMaster LM, Pinnacle 40 and Pinnacle 30, for the first three years for StormMaster ST, GlassMaster 25, GlassMaster 25 Alpine, GlassMaster 25 Matterhorn, GlassMaster 20, GlassMaster T-LOK, Chale, Legend, WeatherMaster ST, WeatherMaster 20 and WeatherMaster T-LOK, and for the first year for MOD 90 MSR, warranty covers product plus replacement application cost, exclusive of metal work, flashing or other work. For the balance of the warranty, tear-off and replacement installation costs are excluded.	Yes, for Grand Manor Shangle, Carriage House Shangle, Presidential TL, Landmark TL No, for all other shingles	No
6d.	Does the warranty cover disposal of defective shingles?	No	Yes, for Grand Manor Shangle, Carriage House Shangle, Presidential TL, Landmark TL. No, for all other shingles	No
6e.	Does the warranty apply to any materials other than shingles?	No	No	Elk hip and ridge will be warranted if installed on the same building as primary Elk shingles
7.	Is there a monetary limitation?	For the first five years for StormMaster LM, Pinnacle 40 and Pinnacle 30, for the first three years for StormMaster ST, GlassMaster 25, GlassMaster 25 Alpine, GlassMaster 25 Matterhorn, GlassMaster 20, GlassMaster T-LOK, Chale, Stratford, Legend, WeatherMaster ST, WeatherMaster 20 and WeatherMaster T-LOK, and for the first year for MOD 90 MSR, the maximum repair or replacement cost to Atlas shall not exceed the replacement cost to the Owner for the product, plus replacement application cost, exclusive of metal work, flashing or other costs. For the balance of the warranty, Atlas' liability excludes any cost for tear-off or replacement installation of new product and is prorated.	After the nonprorated period, CertainTeed's maximum material liability is: Grand Manor Shangle, Presidential TL - \$140/square Carriage House Shangle - \$110/square Landmark TL - \$120/square Presidential Shake (and AR) - \$95/square Independence Shangle (and AR), Landmark 40 (and AR), Hatteras, Woodscope 40, Hallmark Shangle - \$55/square Landmark 30 (and AR), Woodscope 30 - \$45/square Custom Sealdon 30, XT 30 (and AR), Hearthstead, Custom Lok 25 - \$35/square Landmark 25 (and AR), Classic Horizon Shangle, New Horizon Shangle, Woodscope 25, Firehall (and AR) - \$40/square XT 25 (and AR), Sealdon 25, Seal King 25, Jet 25 - \$40/square T 20 (and AR), Firescreen - \$25/square	For the first ten (10) years, Elk shall pay the reasonable replacement cost of shingles & application labor or provide replacement shingles of similar design or pay reasonable cost for repair of the shingles. Thereafter, the replacement cost which Elk will pay will be reduced by the amount of usage received from the shingles
8.	Specific exclusion from coverage (See Warranty Introduction for codes)	1, 2, 4, 8, 13, 19, 24, 27	1, 2, 4, 6, 7, 10, 14, 16, 21, 23 (also excludes damage caused by ice back up or ice damming)	1, 2, 3, 4, 8, 9, 10, 11, 13, 16, 17, 19, 21, 24. Warranty also excludes damage caused by decking nails or staples backing out and either perforating or pushing up the shingles.
9.	Wind coverage/exclusion	Atlas warrants that its StormMaster LM and StormMaster ST shingles will resist damage by wind gusts up to a maximum of 102 mph for the first five years after installation. Atlas warrants that its Pinnacle 40, Pinnacle 30, GlassMaster 25, GlassMaster 25 Alpine, GlassMaster 25 Matterhorn, GlassMaster T-LOK, Chale, Legend, WeatherMaster ST, and WeatherMaster T-LOK shingles will resist damage by wind gusts up to a maximum of 60 mph for the first five years after installation. Atlas warrants that its GlassMaster 20 and WeatherMaster 20 shingles will resist damage by wind gusts up to a maximum of 54 mph for the first five years after installation. If, during this five year period, damage occurs to the shingles as a result of wind gusts less than the warranted speed, Atlas will furnish at no charge, replacement shingles for the damaged shingles only, but no replacement labor. Shingles installed under conditions which temporarily or permanently preclude activation of the sealant must be hand sealed at the time of installation. In the event the shingles fail to self-seal after proper installation and climatic exposure, Atlas' sole responsibility shall be to pay a reasonable cost to hand seal the affected shingles. In order to activate the sealant feature, the shingles must be exposed to warm sunlight for a continued period of time.	Grand Manor Shangle, Carriage House Shangle, Presidential TL, Landmark TK and Hatteras are warranted against blow-off damage due to wind velocities up to 110 mph for ten (10) years. All other CertainTeed shingles are warranted against blow-off damage for five (5) years due to wind velocities as follows: Presidential Shake - 85 mph Independence Shangle, Landmark 40, Woodscope 40, Custom Sledon 30, XT 30 - 80 mph Woodscope 30 - 70 mph Landmark 25 (and AR), Classic Horizon Shangle, New Horizon Shangle, Hearthstead, Custom Lok 25, XT 25 (and AR), Sealdon 25, Woodscope 25, Firehall (and AR), Seal King 25, Jet 25, CT 20 (and AR), Firescreen - 60 mph If the applied shingles contain self-sealing asphalt strips, and if any of these strips fail to activate within the first year following application, CertainTeed shall have no liability for such defect unless CertainTeed is afforded the opportunity to hand-seal, at its sole expense, any non-sealing shingles.	Shingles warranted against winds up to 60 mph for five years. Elk's liability for wind damage is limited to Elk's obligation to pay the reasonable cost of replacing shingles that have blown off including, only in the case of an original owner, the cost of reasonable application labor, and in the case of self-sealing shingles, the reasonable cost of manually sealing any unsealed shingles which have had adequate exposure to heat. Elk's wind warranty is conditioned upon installation of the shingles in accordance with Elk's application instructions as printed on the shingle wrapper and in the case of Seal-A-Ridge FLX or other Elk hip and ridge shingles with a factory applied sealant, thermal sealing. Shingles must be exposed to adequate heat from direct sunlight for sealing to occur.
10.	Notification requirements	Any claim made must be in writing, mailed with the proof of purchase to Atlas Roofing Corporation, Attn: Consumer Services, 2564 Valley Road, Meridian, MS 39307, within 5 days after discovery of the alleged defect.	Owner must promptly notify CertainTeed in writing of any manufacturing defect or algae contamination and provide proof of the date of purchase and date of application of the shingles. Notification should be sent to: CertainTeed Corporation, 1400 Union Westing Road, Blue Bell, PA 19422, Attention: RPG Technical Services	Written notification of alleged defect with a copy of warranty card and proof of purchase to Elk at one of its four offices within 30 days after discovery of a problem. Owner may be required to provide samples of shingles and photographs and other requested materials at Owner's expense.
11.	Determination of warranty applicability	Within 45 days from receipt of notice, Atlas will investigate claim, or at its option, designate in writing another party including the owner to procure samples and forward them to Atlas.	CertainTeed will investigate claim and confirm if there is a defect covered by the warranty.	Elk will make investigation, including roof top inspection by an Elk employee and laboratory testing of the suspect shingles. If the investigation reveals manufacturing defects covered by warranty, Elk will provide a settlement within a reasonable time.
12.	Does the issuing entity manufacture and/or sell the shingles?	Atlas manufactures and sells the shingles.	CertainTeed manufactures and sells the shingles.	Elk manufactures and sells the shingles
13.	Specific conditions to make warranty ineffective or void (See warranty introduction for codes)	C, E	A, F	A, C, E, G
14.	Inclusion of consequential damages	No	No	No
15.	Assignability	Warranty is transferred by original purchaser to new buyers of the building when title to the real estate is transferred.	Warranty may be transferred by the original consumer to the subsequent property owner. For Grand Manor Shangle, Carriage House Shangle, Presidential TL and Landmark TL, if the warranty is transferred during the first ten years after application, the warranty will extend for 40 years from original installation. For all other shingles, if the warranty is transferred during the nonprorated period, the duration of the warranty will remain the same as for the original consumer. If the warranty is transferred by the original consumer after the nonprorated period, the warranty duration following the transfer is two (2) years from the date of the real estate transfer.	Warranty may be transferred during the first 10 years by the original owner to the first successor purchaser who purchases or is otherwise transferred the building or premises on which the shingles were properly installed. The purchaser or transferee must complete and return a Transfer Notification Card and pay a transfer fee of \$2.00 per square within 30 days after the transfer of the building. The transferee will have five (5) years of prorated coverage unless the transfer took place within one (1) year of installation, in which case the Transferee will have the same rights and remedies of the original owner.
16.	Cost to obtain	None, fully transferable to all subsequent property owners.	None	None
17.	Is the warranty backed by insurance coverage?	No	No	No
18.	Is the warranty an additional or exclusive remedy for the owner?	Warranty is owner's sole and exclusive remedy. Atlas makes no representation or warranty of any kind other than as set forth in the limited warranty. Atlas' liability is limited to the provisions of the warranty, whether any claim against it is based upon strict liability, negligence, breach of warranty or any other theory or cause of action. No person is authorized to alter the warranty either orally or in writing.	Warranty replaces all other oral or written warranties, liabilities, or obligations of CertainTeed. No field representative, distributor or dealer of CertainTeed is authorized to make any change or modification to this warranty.	Warranty is the sole and exclusive remedy provided by Elk for manufacturing defects. Elk makes no representation or warranty of any kind; other than what is stated in the warranty. Elk shall not be liable based upon any theory of liability, including negligence, breach of warranty, strict liability, product liability or any other theory
19.	Special features/conditions	Repairs made prior to or during the period of Atlas' investigation of a claim without Atlas' prior written approval shall be at owner's expense.	The lifetime coverage for Grand Manor Shangle, Carriage House Shangle, Presidential TL, and Landmark TL offered by this warranty is designed to cover individual homeowners only. In the instance of shingles purchased by or installed upon property owned by, for example, corporations, governmental agencies, partnerships, trusts, religious organizations, schools, condominiums or cooperative housing arrangements, or installed on apartment buildings or any other type of building or premises not used by individual homeowners as their residence, the warranty period for Grand Manor Shangle, Carriage House Shangle, Presidential TL and Landmark TL will be 40 years. For all shingles normally warranted for less than 40 years, the duration of the warranty will be ten (10) years when shingles are installed on an inadequately ventilated roof deck. When CertainTeed's "top-of-the-line" shingles (i.e. those shingles covered by a 40-year or longer warranty) are installed on commercial building (non-residential buildings) without adequate ventilation, CertainTeed will extend its normal warranty under certain circumstances including using only structural insulated panels or railroad insulation panels having either minimum 3/8" plywood or minimum 7/16" OSB or their top surface as the substrate for the shingles. CertainTeed shall not be liable as a result of discontinued or modification of its products and shall not be liable in event replacement material may vary in color in comparison to the original product as a result of normal weathering. CertainTeed may substitute products designated by CertainTeed to be of comparable quality or price if the product initially installed has been discontinued or modified.	No limited warranty assures that the covered products will last the entire length of the applicable warranty period. Any claim for shingles, which have been replaced prior to Elk's receipt of written notice, samples and on-site inspection, constitutes spoliation and will be denied. Any claim not settled within a reasonable time, as a prerequisite to any litigation, shall be submitted to mediation before a mediator(s) mutually selected by the parties, or if they are unable to agree, by any federal district court judge whether or not having jurisdiction on the matter or acting in an official capacity. No person is authorized to alter the warranty either orally or in writing.
20.	Executed by owner?	No	CertainTeed provides for electronic warranty registration. Failure to register shall not void the warranty.	Yes; Owner is to sign and submit warranty registration form to one of Elk's four offices within 30 days following installation.

Asphalt Shingle Warranties

1. Identity of issuing entity	Elk Corporation of Alabama or Elk Corporatino of Texas	Elk Corporation of Alabama	GAF Materials Corporation
2. Title, original publication date, and identifying symbol, if any	Prestique Asphalt Shingles Limited Warranty," July 23, 2001, FLTW 7/01. 50M	"Capstone 40 with formula FLX" Roofing Products Limited Warranty," July 23, 2001, CAPWAR 7/01	"GAF Smart Choice System Plus Limited Warranty," January 2001; RSWT 162 67905-200 50M
3. Products covered	Prestique Plus 40, Prestique Plus 40 with StainGuard, Prestique Gallery Collection, Prestique Gallery Collection with StainGuard, Prestique 35, Prestique 35 with StainGuard, Prestique 30, Prestique 30 with StainGuard, Prestique 30-MD with StainGuard, Prestique 25 Raised Profile, Prestique 25 Raised Profile with StainGuard, RidgeCrest vented high profile ridge, Ridgecrest high profile hip and ridge, Z Ridge, Seal-A-Ridge with Formula FLX	Capstone 40, Capstone 40 with StainGuard	Royal Sovereign, Marquis WeatherMax, Timberline 25, Original Timberline, Timberline Ultra, Slateline, Grand Sequoia, Grand Canyon, Country Mansion, Country Estates; all GAF Weather Stopper™ products (See Item 10 below)
4. Scope of coverage	Elk warrants that the Prestique® asphalt shingles are free from manufacturing defects in materials or manufacturing workmanship that would adversely affect performance and, when manufactured with StainGuard treatment, will inhibit the discoloration of roofing granules caused by growth of algae. StainGuard warranty is only available in Alabama, Arkansas, Georgia, Florida, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas and Virginia.	Elk warrants Elk Capstone 40 asphalt shingles with formula FLX are free from defects in materials or manufacturing workmanship that would adversely affect performance and, when manufactured with StainGuard treatment, will inhibit discoloration of roofing granules caused by growth of algae. The StainGuard warranty is available in Alabama, Arkansas, Georgia, Florida, Kentucky, Louisiana, Mississippi, No Carolina, Oklahoma, South Carolina, Tennessee, Texas and Virginia.	GAF warrants that its products will remain free from manufacturing defects that adversely affect their performance. If shingles were sold with Algae-Easter™ protection, GAF warrants that blue-green algae will not cause a pronounced discoloration.
4a. Does the warranty provide coverage for defects in manufacture?	Yes	Yes	Yes
4b. Does the warranty provide coverage for defects in application?	No	No	No
4c. Does the warranty limit coverage to leakage and, if no, what defects or conditions other than leakage are covered?	No; warranty covers manufacturing defects that affect performance, algae resistance and wind damage.	No; warranty covers manufacturing defects that affect performance, algae resistance and wind damage	No; warranty covers manufacturing defects that adversely affect performance and blue-green algae discoloration
4d. Does the warranty provide coverage for flashings, metal work, or related work that may be affected and/or need to be repaired or removed?	No	No	No; however, warranty covers all GAF Weather Stopper™ system components, including ridge vents and underlayment
5. Length of coverage	For Manufacturing Defects: 40 years: Prestique Plus 40 with StainGuard, Prestique Gallery Collection with StainGuard 35 years: Prestique I 35, Prestique I 35 with StainGuard 30 years: Prestique 30-MD with StainGuard, Prestique 30, Prestique 30 with StainGuard For Algae Resistance: 10 years For Wind Damage: 5 years If warranty is transferred to subsequent building owner more than 1 year after the original application, warranty is limited to 5 years from the date of transfer and is prorated. (See Item 15 below)	For Manufacturing Defects: 40 years For Algae Resistance: 10 years For Wind Damage: 5 years If warranty is transferred to subsequent building owner more than 1 year after the original application, warranty is limited to 5 years from the date of transfer and is prorated. (See Item 15 below)	For Manufacturing Defects: Life: Grand Canyon, Country Mansion, Country Estates 40 years: Timberline Ultra, Slateline, Grand Sequoia 30 years: Marquis WeatherMax, Original Timberline 25 years: Royal Sovereign, Timberline 25 For Algae Discoloration: 10 years For Wind Damage: 5 years (Slateline - 10 years)
5a. Is the warranty prorated?	Yes	Yes	Yes
5b. When does the prorating begin?	After five (5) years	After ten (10) years	After 12 years: Slateline, Grand Sequoia, Grand Canyon, Country Mansion Country Estates After 10 years: Royal Sovereign, Marquis WeatherMax, Timberline 25, Original Timberline, Timberline Ultra
5c. What is the prorating formula?	Prestique Plus 40, Prestique Plus 40 with StainGuard, Prestique Gallery Collection, Prestique Gallery Collection with StainGuard: After 5 years, warranty is reduced by 1/480 for each month since the original installation (so that at the beginning of the 6 th year, warranty is reduced by 60/480). Prestique I 35, Prestique I 35 with StainGuard: After 5 years, warranty is reduced by 1/420 for each month since the original installation (so that at the beginning of the 6 th year, warranty is reduced by 60/420). Prestique 30-MD with StainGuard, Prestique 30, Prestique 30 with StainGuard: After 5 years, warranty is reduced by 1/360 each month since the original installation (so that at the beginning of the 6 th year, warranty is reduced by 60/360). Prestique 25 Raised Profile, Prestique 25 Raised Profile with StainGuard: After 5 years, warranty is reduced by 1/300 each month since the original installation (so that at the beginning of the 6 th year, warranty is reduced by 60/300).	After 10 years, warranty is reduced by 1/480 for each month since the original installation (so that at the beginning of the 11 th year, warranty is reduced by 120/480).	Slateline, Grand Sequoia: After 12 years, warranty is reduced by 1/480 for each month of service from date of installation (so that at the beginning of the 13 th year, warranty would be reduced by 144/480). Timberline Ultra: After 10 years, warranty is reduced by 1/480 for each month of service from date of installation (so that at the beginning of the 11 th year, warranty would be reduced by 120/480). Marquis WeatherMax, Original Timberline: After 10 years, warranty is reduced by 1/360 for each month of service from date of installation (so that at the beginning of the 11 th year, warranty would be reduced by 120/360). Royal Sovereign, Timberline 25: After 10 years, warranty is reduced by 1/300 for each month of service from date of installation (so that at the beginning of the 11 th year, warranty would be reduced by 120/300). Grand Canyon, Country Mansion, Country Estates: After 12 years, warranty is reduced in accordance with the following schedule: (Years of service/prorated rate %): 11-12/85, 13-14/80, 15-16/75, 17-18/70, 19-20/65, 21-22/60, 23-24/55, 25-26/50, 27-28/45, 29-30/40, 31-32/35, 33-34/30, 35-40/25, 41-Lifetime/20
6. Nature of remedy	For warranty claims of original owners, Elk, at its sole discretion, shall either (1) pay the reasonable replacement cost of defective shingles and application labor, (2) provide replacement shingles only or pay the reasonable cost of replacement shingles of similar design, or (3) pay the reasonable cost for repair of the shingles. For warranty claims of transferees, Elk, at its sole discretion, shall either (1) pay the reasonable replacement cost of defective shingles, without application labor, or (2) pay the reasonable cost for replacement shingles of a similar design without application labor or (3) pay the reasonable cost for repair of the defective shingles. For stain resistance: Prestique Plus 40 with StainGuard, Prestique Gallery Collection with StainGuard, Prestique I 35 with StainGuard, Prestique 30-MD with StainGuard, Prestique 30 with StainGuard, and Prestique 25 Raised Profile with StainGuard are warranted against discoloration of roofing granules caused by growth of algae for 10 years for original consumers and for 5 years for authorized transferees. Elk's obligation is to pay the reasonable cost of commercially cleaning or treating shingles that have become discolored or, if Elk elects, replacing discolored shingles. Owner is responsible to find, hire and complete treatment by a qualified professional as recommended by Elk and the cleaning professional will have sole responsibility for completing such treatment in a competent manner.	For Manufacturing Defects: For warranty claims of original owners, Elk, at its sole discretion, shall either (1) pay the reasonable replacement cost of defective shingles and application labor, (2) provide replacement shingles only or pay the reasonable cost of replacement shingles of similar design, or (3) pay the reasonable cost for repair of the shingles. For warranty claims of transferees, Elk, at its sole discretion, shall either (1) pay the reasonable replacement cost of defective shingles, without application labor, or (2) pay the reasonable cost for replacement shingles of a similar design without application labor or (3) pay the reasonable cost for repair of the defective shingles. For StainGuard Resistance: Capstone 40 with StainGuard is warranted against discoloration of roofing granules caused by growth of algae for 10 years for original consumers and for 5 years for authorized transferees. Elk's obligation is to pay the reasonable cost of commercially cleaning or treating shingles that have become discolored or, if Elk elects, replacing discolored shingles. Owner is responsible to find, hire and complete treatment by a qualified professional as recommended by Elk and the cleaning professional will have sole responsibility for completing such treatment in a competent manner.	For Manufacturing Defects: For the first 10 or 12 yrs (depending upon shingle type), GAF will pay the full reasonable cost of labor to repair or recover any part of GAF products that are found to have a manufacturing defect that affects performance & will provide replacement products. After the 10 or 12 yr period, the repair or recover cost that GAF will pay & the roof products to be provided will be reduced by amount of use received. For Algae Discoloration: During the first year, GAF will be responsible for the cost of cleaning shingles or the cost to repair or recover shingles up to a maximum of the original installed cost of the affected shingles. For 9 year balance of the 10 year warranty period, GAF's maximum contribution will be reduced by the amount of use received
6a. Does the warranty provide for furnishing of replacement shingles?	Yes	Yes	Yes
6b. Does the warranty provide for labor to install replacement shingles?	Yes for original owner; no for transferees	Yes for original owner; no for transferees	Yes
6c. Does the warranty provide for labor to remove defective shingles?	No	No	No

6d.	Does the warranty cover disposal of defective shingles?	No	NO	No																		
6e.	Does the warranty apply to any materials other than shingles?	Elk hip and ridge will be warranted if installed on the same building with the Elk shingles.	Elk hip and ridge will be warranted if installed on the same building with the Elk shingles	Warranty covers all GAF Weather Stopper™ components																		
7.	Is there a monetary limitation?	During the first 5 yrs, Elk shall pay the reasonable replacement cost of shingles and application labor or provide replacement shingles of similar design or pay the reasonable cost for repair of the shingles. Thereafter, the replacement cost which Elk will pay will be reduced by the amount of usage received from the shingles.	For the first 10 yrs,Elk shall pay the reasoable replacement cost of shingles & application labor or provide replacement shingles of similar design or pay the reasonable cost for repair of the shingles. Thereafter, the replacement cost which Elk will pay will be reduced by the amount of usage received from the shingles.	<p>For Manufacturing Defects: After the initial 10 or 12 year period (depending upon the shingle type), GAF's maximum liability shall not exceed three times the applicable dollar per square value (before any reduction for use):</p> <table><tr><td>Country Mansion, Country Estates:</td><td>\$120/sq.</td></tr><tr><td>Grand Canyon:</td><td>\$85/sq.</td></tr><tr><td>Grand Sequoia:</td><td>\$80/sq.</td></tr><tr><td>Timberline Ultra:</td><td>\$65/sq.</td></tr><tr><td>Slateline:</td><td>\$50/sq.</td></tr><tr><td>Original Timberline:</td><td>\$45/sq.</td></tr><tr><td>Timberline 25:</td><td>\$40/sq.</td></tr><tr><td>Marquis WeatherMax:</td><td>\$35/sq.</td></tr><tr><td>Royal Sovereign:</td><td>\$30/sq.</td></tr></table> <p>For Algae Discoloration: During the first year, GAF's maximum contribution shall be the original installed cost of the affected shingles. After the first year, GAF's maximum contribution will be based upon the dollar per square value, reduced by the amount of use received.</p>	Country Mansion, Country Estates:	\$120/sq.	Grand Canyon:	\$85/sq.	Grand Sequoia:	\$80/sq.	Timberline Ultra:	\$65/sq.	Slateline:	\$50/sq.	Original Timberline:	\$45/sq.	Timberline 25:	\$40/sq.	Marquis WeatherMax:	\$35/sq.	Royal Sovereign:	\$30/sq.
Country Mansion, Country Estates:	\$120/sq.																					
Grand Canyon:	\$85/sq.																					
Grand Sequoia:	\$80/sq.																					
Timberline Ultra:	\$65/sq.																					
Slateline:	\$50/sq.																					
Original Timberline:	\$45/sq.																					
Timberline 25:	\$40/sq.																					
Marquis WeatherMax:	\$35/sq.																					
Royal Sovereign:	\$30/sq.																					
8.	Specific exclusion from coverage (See Warranty Introduction for codes)	1, 2, 3, 4, 8, 9, 10, 11, 13, 16, 17, 19, 21, 24. Warranty also excludes damage caused by decking nails or staples backing out and either perforatoring pushing up the shingles.	1, 2, 3, 4, 8, 9, 10, 11, 13, 16, 17, 19, 21, 24. Warranty also excludes damage caused by decking nails or staples backing out and either perforating or pushing up the shingles.	1, 2, 4, 6, 8, 9, 10, 11, 13, 17, 19, 20, 23, 24																		
9.	Wind coverage/exclusion	<p>Prestique Plus 40, Prestique Plus 40 with StainGuard, Prestique Gallery Collection, Prestique Gallery Collection with StainGuard: Shingles warranted against winds up to 110 mph for five years if at least six (6) properly placed nails and Elk starter strip shingles have been installed. Warranty coverage for maximum wind velocity up to 80 mph is provided when at least four (4) properly placed fasteners have been installed.</p> <p>Prestique 1 35, Prestique 1 35 with StainGuard: Shingles warranted against winds up to 80 mph for five years.</p> <p>Prestique 30-MD with StainGuard, Prestique 30, Prestique 30 with StainGuard, Prestique 25 Raised Profile, Prestique 25 Raised Profile with StainGuard: Shingles warranted against winds up to 60 mph for five years.</p> <p>Elk's liability for wind damage is limited to Elk's obligation to pay the reasonable cost of replacing shingles that have blown off and the reasonable cost of manually sealing any unsealed shingles which have had adequate exposure to heat. Elk's wind warranty is conditioned upon installation of the shingles in accordance with Elk's application instructions as printed on the shingle wrapper and thermal sealing. Shingles must be exposed to adequate heaf from direct sunlight for sealing to occur.</p>	<p>Shingles warranted against winds up to 110 mph for five years if at least six (6) properly placed nails and Elk starter strip shingles have been installed.</p> <p>Warranty coverage for maximum wind velocity up to 80 mph is provided when at least four (4) properly placed fasteners have been installed.</p> <p>Elk's liability for wind damage is limited to Elk's obligation to pay the reasonable cost of replacing shingles that have blown off and the reasonable cost of manually sealing any unsealed shingles which have had adequate exposure to heat. Elk's wind warranty is conditioned upon installation of the shingles in accordance with Elk's application instructions as printed on the shingle wrapper and thermal sealing. Shingles must be exposed to adequate heat from direct sunlight for sealing to occur. The application instructions for Capstone 40 shingles contain special techniques required before the shingles will carry the maximum limited wind warranty.</p>	<p>For the first 10 years for Slateline and for the first 5 years after application for all others, GAF warrants against shingle blow-off and damage by winds up to the maximum wind speeds listed below after thermal sealing should have occurred and did not due to a manufacturing defect:</p> <p>Slateline, Grand Canyon - 110 mph; Country Mansion, Country Estates, Grand Sequoia, Timberline Ultra, Marquis WeatherMax - 80 mph; Original Timberline: 70 mph; Timberline 25, Royal Sovereign: 60 mph</p> <p>GAF will reimburse for the reasonable costs of replacing blown-off shingles and hand sealing any remaining unsealed shingles. All self-sealing shingles must be subjected to warm sunlight for several days before full thermal sealing can occur. Shingles installed in fall or winter may not seal until the following spring. Failure to seal or shingles that blow off under these circumstances result from the nature of self-sealing shingles, not a manufacturing defect.</p>																		
10.	Notification requirements	Written notification of alleged defect with a copy of warranty card & proof of purchase to Elk at one of its four offices, within 30 days of discovery of a problem. Owner may be requested to submit samples of shingles and photographs and other requested materials at Owner's expense.	Notification to Elk Corp of Alabama, 4600 Stillman Blvd., Tuscaloosa, AL 35401, within 30 days after discovery of any alleged defect. Notice should include copy of warranty card and proof of purchase. Owner may be required to provide samples of shingles and photographs and other requested materials at Owner's expense.	Owner must send written notice of claim, together with proof that warranty was registered to claimant (or proof of transfer if the second owner has properly transferred coverage), to GAF Materials Corporation, Warranty Service Department, 1351 Alps Road, Wayne, NJ 07470, within 30 days after discovery of alleged claim. Owner may be required, at its expense, to submit sample roof products for testing and photographs. Notice to contractor or dealer is not notice to GAF.																		
11.	Determination of warranty applicability	Elk will make investigation, including roof top inspection by an Elk employee and laboratory testing of the suspect shingles. If the investigation reveals manufacturing defects covered by warranty, Elk will provide a settlement within a reasonable time.	Elk will make investigation, including roof top inspection by an Elk employee and laboratory testing of the suspect shingles. If the investigation reveals manufacturing defects covered by warranty, Elk will provide a settlement within a reasonable time.	Decisions as to the extent of repair, recover or cleaning required, whether GAF products should be repaired, recovered or cleaned, and the reasonable cost of such work, will be made solely by GAF.																		
12.	Does the issuing entity manufacture and/or sell the shingles?	Elk manufacturers and sells the shingles	Elk manufactures and sells the shingles.	GAF manufacturers and sells the products.																		
13.	Specific conditions to make warranty ineffective or void (See warranty introduction for codes)	A, C, E	A, C, E, G	C																		
14.	Inclusion of consequential damages	No	No	No																		
15.	Assignability	Warranty may be transferred during the first 10 years by the original owner to the first successor purchaser who purchases or is otherwise transferred the building or premises on which the shingles were properly installed. The purchaser or transferee must complete and return a Transfer Notification Card and pay a transfer fee of \$2.00 per square within 30 days after the transfer of the building. The transferee will have five (5) years of prorated coverage unless the transfer took place within one (1) year of installation, in which case the transferee will have the same rights and remedies of the original owner.	Warranty may be transferred during the first 10 years by the original owner to the first successor purchaser who purchases or is otherwise transferred the building or premises on which the shingles were properly installed. The purchaser or transferee must complete and return a Transfer Notification Card and pay a transfer fee of \$2.00 per square within 30 days after the transfer of the building. The transferee will have five (5) years of prorated coverage unless the transfer took place within one (1) year of installation, in which case the transferee will have the same rights and remedies of the original owner.	Warranty may not be transferred or assigned, directly or indirectly, except for one transfer to a new owner as follows: (a) The second owner must notify GAF in writing within 30 days after the property transfer has occurred; (b) If the transfer takes place within the non-prorated period (i.e. 10 or 12 years depending upon type of shingle), the second owner shall be entitled to all benefits contained in warranty; (c) If the transfer takes place after the 12 or 10 year period ends, the length of the warranty shall be reduced to a two-year period after ownership changes. During this two-year period, GAF's reimbursement to the second owner will be based on the dollar per square value, reduced by the amount of use that has been received from date of installation.																		
16.	Cost to obtain	None	None	GAF charges for this warranty; contact GAF for pricing information.																		
17.	Is the warranty backed by insurance coverage?	No	No	NO																		
18.	Is the warranty an additional or exclusive remedy for the owner?	Warranty is the sole and exclusive remedy provided by Elk for manufacturing defects. Elk makes no representation or warranty of any kind, other than what is stated in the warranty. Elk shall not be liable based upon any theory of liability, including negligence, breach of warranty, strict liability, products liability or any other theory.	Warranty is the sole & exclusive remedy provided by Elk for manufacturing defects. Elk makes no representation or warranty of any kind, other than what is stated in the warranty. Elk shall not be liable based upon any theory of liability, including negligence, breach of warranty, strict liability, product liability or any other theory.	Warranty is exclusive and replaces all other warranties, express or implied. Warranty is exclusive remedy from GAF and represents the sole remedy available to any owner of GAF's roofing products. GAF makes no other representations or warranty of any kind. Warranty may not be changed or modified. No one, including any representative or employee of GAF, has authority to assume any additional liability or responsibility for GAF.																		
19.	Special features/conditions	<p>No limited warranty assures that the covered products will last the entire length of the applicable warranty period.</p> <p>Any claim for shingles, which have been replaced prior to Elk's receipt of written notice, samples and on-site inspection, constitutes spoilage and will be denied.</p> <p>Any claim not settled within a reasonable time, as a prerequisite to any litigation, shall be submitted to mediation before a mediator(s) mutually selected by the parties, or if they are unable to agree, by any federal district court judge whether or not having jurisdiction on the matter or acting in an official capacity.</p> <p>No person is authorized to alter the warranty either orally or in writing.</p>	<p>No limited warranty assures that the covered products will last the entire length of the applicable warranty period.</p> <p>Any claim for shingles which have been replaced prior to Elk's receipt of written notice, samples and on-site inspection, constitutes spoilage and will be denied.</p> <p>Any claim not settled within a reasonable time, as a prerequisite to any litigation, shall be submitted to mediation before a mediator(s) mutually selected by the parties, or if they are unable to agree, by any federal district court judge whether or not having jurisdiction on the matter or acting in an official capacity.</p> <p>No person is authorized to alter the warranty either orally or in writing.</p>	<p>In order to obtain this warranty, the roof must be installed by a GAF licensed contractor and at least two GAF Weather Stopper products, in addition to GAF asphalt shingles, must be installed such as GAF Cobra ventilation products, Weather Watch leak barrier, Shingle-Mate roof deck protection, and ridge cap shingles. GAF reserves the right to arrange directly for roof products to be repaired, recovered or cleaned instead of reimbursing owner for such work. GAF reserves the right to discontinue or modify its shingles, including the colors available, so any replacement shingles may not be an exact match.</p> <p>GAF will send owner notification that warranty has been registered. If notification has not been received within 45 days after installation, contact GAF at 1-888-532-5767. Warranty not effective until written confirmation received from GAF.</p>																		
20.	Executed by owner?	Yes; the owner is to sign and submit warranty registration form and return it to one of Elk's four office within 30 days following installation.	Yes; original homeowner and contractor must complete warranty registration form and return it to Elk, 4600 Stillman Blvd., Tuscaloosa, AL 35401, within 30 days after the installation has been completed.	No; GAF licensed contractor must complete and return warranty application form, along with proof of purchase and the appropriate fee. (See Special Features/Conditions.)																		

Asphalt Shingle Warranties

1. Identity of issuing entity	GAF Materials Corporation	GAF Materials Corporation	Georgia-Pacific Corporation
2. Title, original publication date, and identifying symbol, if any	"GAF Golden Pledge Limited Warranty;" January 2001; RESWT161 67903-200 50M	"GAF Smart Choice Shingle Limited Warranty;" August 2000; GAFMC 8/00 RESWT160	"Limited Shingle Warranty"; January 1996; Lit. Item #041350
3. Products covered	Royal Sovereign, Marquis WeatherMax, Timberline 25, Original Timberline, Timberline Ultra, Slateline, Grand Sequoia, Grand Canyon, Country Mansion, Country Estates; all GAF Weather Stopper™ products	Sentinel, Royal Sovereign, Marquis WeatherMax, Timberline 25, Original Timberline, Timberline Ultra, Slateline, Grand Sequoia, Grand Canyon, Country Mansion, Country Estates	Summit III, Summit, Tough-Glass Plus, Tough-Glass, Tough-Glass T-Lock, Premium-25, Asphalt-20, Savannah
4. Scope of coverage	GAF warrants that the complete GAF Weather Stopper roof system will remain free from manufacturing defects and application errors in the Weather Stopper roof system or covered flashings that adversely affect their performance. If shingles were sold with Algae-Eater™ protection, GAF warrants that blue-green algae will not cause a pronounced discoloration. GAF Weather Stopper roof system includes GAF roof shingles, ridge cap shingles, attic ventilation products and underlayments. Misapplication of the Weather Stopper products and flashings at valleys, dormers, chimneys and plumbing vents are also covered. (See Special Features/Conditions)	GAF warrants that its roofing shingles will remain free from manufacturing defects that adversely affect their performance (during an initial 3, 5 or 10 year period) (See Item No. 5b below) or cause leaks (during the entire warranty term). If shingles were sold with Algae-Eater™ protection, GAF warrants that blue-green algae will not cause a pronounced discoloration.	Georgia-Pacific warrants the roofing shingles are free from manufacturing defects, which would reduce the usable life of the shingles. Georgia-Pacific warrants that its algae resistant shingles will remain free of obvious and unsightly discoloration due to algae growth.
4a. Does the warranty provide coverage for defects in manufacture?	Yes	Yes	Yes
4b. Does the warranty provide coverage for defects in application?	Yes	No	No
4c. Does the warranty limit coverage to leakage and, if no, what defects or conditions other than leakage are covered?	No; warranty covers manufacturing defects, application errors and covered flashings that adversely affect performance and blue-green algae discoloration.	No; warranty covers manufacturing defects that adversely affect performance and blue-green algae discoloration	No; warranty covers manufacturing defects that would reduce the usable life of the shingles and algae resistance.
4d. Does the warranty provide coverage for flashings, metal work, or related work that may be affected and/or need to be repaired or removed?	Yes; warranty covers GAF products and application of flashings at valleys, dormers, chimneys and plumbing vents.	No	No
5. Length of coverage	For Manufacturing Defects: Life: Grand Canyon, Country Mansion, Country Estates 40 years: Timberline Ultra, Slateline, Grand Sequoia 30 years: Marquis WeatherMax, Original Timberline 25 years: Royal Sovereign, Timberline 25 For Misapplication, Wind Damage and Failure to Seal: 12 years For Algae Discoloration: 10 years	For Manufacturing Defects: Life: Grand Canyon, Country Mansion, Country Estates Timberline Ultra, Slateline, Grand Sequoia 30 years: Marquis WeatherMax, Original Timberline 25 years: Royal Sovereign, Timberline 25 20 years: Sentinel For Algae Discoloration: 10 years: Royal Sovereign, Marquis WeatherMax, Timberline 25, Original Timberline, Timberline Ultra, Slateline, Grand Sequoia, Grand Canyon, Country Mansion, County Estates 7 years: Sentinel	For manufacturing defects: 40 years: Summit III 30 years: Summit 25 years: Tough-Glass Plus; Tough-Glass T-lock; Premium 25, Savannah 20 years: Tough Glass, Asphalt 20 For algae resistance: 10 years
5a. Is the warranty prorated?	Yes	Yes	Yes
5b. When does the prorating begin?	After 12 years	After 10 years: Slateline, Grand Sequoia, Grand Canyon, Country Mansion, Country Estates After 5 years: Royal Sovereign, Marquis WeatherMax, Timberline 25, Original Timberline, Timberline Ultra After 3 years: Sentinel	After 5 years: Summit III, Summit After 3 years: Tough-Glass Plus, Tough-Glass T-Lock, Premium 25, Savannah, Asphalt 20
5c. What is the prorating formula?	Timberline Ultra, Slateline, Grand Sequoia: After 12 years, warranty is reduced by 1/480 for each month of service from date of installation (so that at the beginning of the 13 th year, warranty is reduced by 1/44/480) Marquis WeatherMax, Original Timberline: After 12 years, warranty is reduced by 1/360 for each month of service from date of installation (so that at the beginning of the 13 th year, warranty is reduced by 1/44/360) Royal Sovereign, Timberline 25: After 12 years, warranty is reduced by 1/300 for each month of service from date of installation (so that at the beginning of the 13 th year, warranty is reduced by 1/44/300) Grand Canyon, Country Mansion, Country Estates: After 12 years, warranty is reduced in accordance with the following schedule (years of service/prorating adjustment (%)): 13-14/80; 15-16/75; 17-18/70; 19-20/65; 21-22/60; 23-24/55; 25-26/50; 27-28/45; 29-30/40; 31-32/35; 33-34/30; 35-40/25; 41-lifetime/20	Slateline, Grand Sequoia: After 10 years, warranty is reduced by 1/480 for each month of service from date of installation (so that at the beginning of the 11 th year, warranty would be reduced by 1/20/480) Timberline Ultra: After 5 years, warranty is reduced by 1/480 for each month of service from date of installation (so that at the beginning of the 6 th year, warranty would be reduced by 60/480) Marquis WeatherMax, Original Timberline: After 5 years, warranty is reduced by 1/360 for each month of service from date of installation (so that at the beginning of the 6 th year, warranty would be reduced by 60/360) Royal Sovereign, Timberline 25: After 5 years, warranty is reduced by 1/300 for each month of service from date of installation (so that at the beginning of the 6 th year, warranty would be reduced by 60/300) Grand Canyon, Country Mansion, Country Estates: After 10 years, warranty is reduced in accordance with the following schedule: After 3 years, warranty is reduced by 1/240 for each month of service from date of installation (so that at the beginning of the 4 th year, warranty would be reduced by 36/240) Years of service/prorating adjustment as follows (years/%): 1-11/240; 12-13/216; 14-15/192; 16-17/168; 18-19/144; 20-21/120; 22-23/96; 24-25/72; 26-27/48; 28-29/24; 30-31/12; 32-33/6; 34-35/3; 36-40/25; 41-lifetime/20	Summit III: After initial five years, warranty is reduced by 1/480 for each month since original installation (so that at beginning of sixth year, warranty would be reduced by 60/480). Summit: After initial five years, warranty is reduced by 1/360 for each month since original installation (so that at beginning of sixth year, warranty would be reduced by 60/360). Tough-Glass Plus, Tough-Glass T-Lock, Premium-25, Savannah: After initial three years, warranty reduced by 1/300 for each month since original installation (so that at beginning of fourth year, warranty would be reduced by 36/300). Tough-Glass, Asphalt-20: After initial three years, warranty is reduced by 1/240 for each month since original installation (so that at beginning of fourth year, warranty would be reduced by 36/240).
6. Nature of remedy	For Manufacturing Defects or Misapplication: For the first 12 years, if any part of the roof system is found to have manufacturing defects or there are application errors, GAF will arrange to have roof repaired or recovered or, at its sole option, will provide replacement roofing products and reimbursement for the full reasonable cost of labor and other materials to repair or recover roof, including flashings at valleys, dormers, chimneys, and plumbing vents. After the first 12 years, GAF will compensate only if there is a covered manufacturing defect, and the repair or recover cost which GAF will pay and the roofing products to be provided, will be reduced to reflect the amount of use received. For Algae Discoloration: During the first year, GAF will contribute either the cost of cleaning shingles of the cost to repair or recover shingles up to the maximum of the original installed cost of the affected shingles. For the next 9 years, GAF's maximum contribution will be based upon the applicable dollar per square value, reduced by the amount of use received. (See Item #7).	For Manufacturing Defects: For the first 3, 5 or 10 years (depending upon the shingle type, see item 5b), GAF will pay the full reasonable cost of labor to repair or recover the defective shingles (exclusive of underlayment, metal work or flashings) and will provide replacement shingles. After the first 3, 5 or 10 year period, GAF will contribute a pro-rated amount or, at GAF's sole option, provide replacement shingles. For Algae Discoloration: During the first year, GAF will contribute either the cost of cleaning shingles or repairing or replacing shingles up to a maximum of the original installed cost of the affected shingles. For the next 6 years for Sentinel and for the next 9 years for the other GAF shingles, GAF's maximum contribution will be reduced by the amount of use received.	Georgia-Pacific is liable for cost to repair or replace defectively manufactured shingles. For algae resistant shingles, Georgia-Pacific's liability shall be to pay the reasonable cost of repair or replacement subject to pro-rating. During the initial three- or five-year period (depending upon the type of shingle), the maximum repair or replacement cost to Georgia-Pacific shall be the replacement cost of those shingles exhibiting discoloration due to algae, including replacement installation costs. For the remainder of the warranty, the maximum repair or replacement cost to Georgia-Pacific shall be the replacement cost of those shingles exhibiting discoloration, in proportion to the unexpired warranty period, excluding all installation costs.
6a. Does the warranty provide for furnishing of replacement shingles?	Yes	Yes	Yes
6b. Does the warranty provide for labor to install replacement shingles?	Yes	Yes; however, after the initial 3, 5 or 10 year period (depending upon shingle type), GAF may provide replacement shingles at its sole option.	For the first five years for Summit III, Summit, and for the first three years for Tough-Glass Plus, Tough-Glass, Tough-Glass T-Lock, Premium-25, Asphalt-20, Savannah warranty covers replacement application cost, exclusive of metal work, flashing or other work. For the balance of the warranty, labor costs are excluded.
6c. Does the warranty provide for labor to remove defective shingles?	Yes	No	For the first five years for Summit III, Summit, and for the first three years for Tough-Glass Plus, Tough-Glass, Tough-Glass T-Lock, Premium-25, Asphalt-20, Asphalt T-Lock, warranty covers replacement cost, plus replacement application cost, exclusive of metal work, flashing or other work. For the balance of the warranty, tear off costs are excluded.
6d. Does the warranty cover disposal of	Yes	No	No
6e. Does the warranty apply to any materials other than shingles?	Warranty covers all GAF Weather Stopper™ products.	Yes; approved GAFMC accessories	No

7. Is there a monetary limitation?	<p>For Manufacturing Defects: After the initial 12 year period, GAF's maximum liability shall not exceed three times the dollar per square value before any reduction for use:</p> <p>Country Mansion, Country Estates: \$120/sq. Grand Canyon: \$95/sq. Grand Sequoia: \$10/sq. Timberline Ultra: \$55/sq. Slateline: \$40/sq. Original Timberline: \$40/sq. Timberline 25: \$40/sq. Marquis WeatherMax: \$45/sq. Royal Sovereign: \$30/sq.</p> <p>For Algae Discoloration: During the first year, GAF's maximum contribution shall be the original installed cost of the affected shingles. After the first year, GAF's maximum contribution will be based upon the above dollar per square value, reduced by the amount of use received.</p>	<p>For Manufacturing Defects: After the initial 3, 5 or 10 year period (depending upon the shingle type), GAF's contribution will be based on either the following dollar per square value or, at GAF's sole option, on providing replacement shingles, reduced by the amount of use received:</p> <p>Country Mansion, Country Estates: \$120/sq. Grand Canyon: \$95/sq. Grand Sequoia: \$10/sq. Timberline Ultra: \$55/sq. Slateline: \$40/sq. Original Timberline: \$40/sq. Timberline 25: \$40/sq. Marquis WeatherMax: \$45/sq. Royal Sovereign: \$30/sq. Sentinel: \$25/sq.</p> <p>For Algae Discoloration: After the first year, GAF's maximum contribution will be based upon the above dollar per square value, reduced by the amount of use received.</p>	<p>For the first five years for Summit III, Summit, and for the first three years for Tough-Glass Plus, Tough-Glass, Tough-Glass 1-LoK, Premium-25, Asphalt-20, Savannah, the maximum repair or replacement cost to Georgia-Pacific shall not exceed the replacement cost to the owner for the shingles, plus replacement application cost, exclusive of metal work, flashing or other costs. For the balance of the warranty, Georgia-Pacific's liability excludes any cost for tear-off or replacement installation of new shingles and is prorated.</p>
8. Specific exclusion from coverage (See Warranty Introduction for codes)	1, 2, 4, 6, 8, 9, 10, 11, 13, 14, (unless shingles were sold with Algae-Eater protection), 15, 17, 19, 20, 23, 24. Warranty also excludes improperly designed or installed gutter or downspout systems.	1, 2, 4, 6, 8, 9, 10, 11, 13, 17, 19, 20, 23, 24	1, 2, 4, 8, 13, 19, 23, 24
9. Wind coverage/exclusion	<p>For the first 12 years after application, GAF warrants its shingles against blow-off or damage by winds up to the maximum wind speeds listed below and that its shingles will not fail to seal.</p> <p>Slateline: 110 mph; Grand Canyon-100 mph; Country Mansion, Grand Sequoia, Marquis WeatherMax, Slateline, Timberline Ultra-80 mph; Original Timberline-70 mph; Timberline 25, Royal Sovereign-60 mph</p> <p>GAF will reimburse only for reasonable costs of replacing the blown-off shingles and hand sealing any remaining unsealed shingles.</p>	<p>For the first 10 years for Slateline and for the first 5 years after application for all others, GAF warrants its shingles against blow-off or damage by winds up to the maximum wind speeds listed below after thermal sealing should have occurred and did not due to manufacturing defect.</p> <p>Slateline, Grand Canyon - 110 mph, Country Mansion, Country Estates, Grand Sequoia, Timberline Ultra, Marquis WeatherMax - 80 mph; Original Timberline - 70 mph; Sentinel, Royal Sovereign, Timberline 25 - 60 mph</p> <p>GAF will reimburse for the reasonable costs of replacing blown-off shingles (exclusive of underlayment, metal work or flashings) and hand sealing any remaining unsealed shingles. All self-sealing shingles must be subjected to warm sunlight for several days before full thermal sealing can occur. Shingles installed in fall or winter may not seal until the following spring. Failure to seal or shingles that blow off under these circumstances result from the nature of self-sealing shingles, not a manufacturing defect.</p>	<p>Georgia-Pacific warrants that its Summit III, Summit, Tough-Glass Plus, Tough-Glass, Tough-Glass 1-LoK, Premium-25, Asphalt-20, Savannah will resist damage by wind gusts up to a maximum of 54 mph for the first five years after installation. If, during this five year period, damage occurs to the shingles as a result of wind gusts under 54 mph, Georgia-Pacific will furnish at no charge, replacement shingles for the damaged shingles only, but no replacement labor. Shingles installed under conditions which temporarily or permanently preclude activation of the sealant must be hand sealed at the time of installation. In the event the shingles fail to self-seal after proper installation and climatic exposure, Georgia-Pacific's sole responsibility shall be to pay a reasonable cost to hand seal the affected shingles. In order to activate the sealant feature, the shingles must be exposed to warm sunlight for a continued period of time.</p>
10. Notification requirements	Owner must send a notice of claim in writing, together with proof that warranty was registered to claimant (or proof of transfer if the second owner has properly transferred coverage) to GAF Materials Corporation, Warranty Service Department, 1361 Alps Road, Wayne, NJ 07470, within 30 days after discovery of alleged claim. Owner may be required, at its expense, to submit sample roof products for testing and photographs. Notice to contractor or dealer is not notice to GAF.	Owner must send a notice of claim in writing, together with proof of purchase to establish original ownership (or proof of transfer if the second owner has properly transferred coverage) and proof of application date, to GAF Materials Corporation, Warranty Service Department, 1361 Alps Road, Wayne, NJ 07470, within 30 days after discovery of alleged defect. Owner may be required, at its expense, to submit sample shingles for testing and photographs. Notice to contractor or dealer is not notice to GAF.	Any claim made must be in writing and mailed along with the proof of purchase to Atlas Roofing Corporation (sic), Attention: Consumer Services, 2322 Valley road, Meridian, MS 39307-9805 within five days after discovery of the alleged defect prior to any repairs being made.
11. Determination of warranty applicability	Decisions as to the extent of repair, recover or cleaning required, whether the shingles should be repaired, recovered or cleaned, and the reasonable cost of such work, will be made solely by GAF.	Decisions as to the extent of repair, recover or cleaning required, whether the shingles should be repaired, recovered or cleaned, and the reasonable cost of such work, will be made solely by GAF.	Within 45 days from receipt of notice, Georgia-Pacific will investigate claim, or at its option, designate in writing another party including the owner to procure samples and forward them to Georgia-Pacific.
12. Does the issuing entity manufacture and/or sell the shingles?	GAF manufacturers and sells the products	GAF manufacturers and sells the shingles	Georgia-Pacific distributes private labels shingles only.
13. Specific conditions to make warranty ineffective or void (See warranty introduction for codes)	C	C	C, E. Warranty also states that warranty will be void if information submitted on warranty information form is erroneous.
14. Inclusion of consequential damages	No	No	No
15. Assignability	Warranty may not be transferred or assigned, directly or indirectly, except for one transfer to a new owner as follows: (a) The second owner must notify GAF in writing within 30 days after the property transfer has occurred; (b) If the transfer takes place within the first 12 years, the second owner shall be entitled to all benefits contained in warranty; (c) If the transfer takes place after 12 years, the length of the warranty shall be reduced to a two-year period after ownership changes. During this two-year period, GAF's reimbursement to the second owner will be based only on the dollar per square value, reduced by the amount of use that has been received from the roof from date of installation.	Warranty coverage terminates upon sale of building and warranty may not be transferred or assigned, directly or indirectly, except for one transfer as follows: (a) The second owner must notify GAF in writing within 30 days after the property transfer has occurred; (b) If the transfer takes place within the first 10 years for Slateline, Grand Sequoia, Grand Canyon, Country Mansion or Country Estates, or within the first 5 years for Royal Sovereign, Marquis WeatherMax, Timberline 25, Original Timberline or Timberline Ultra, or within the first 3 years for Sentinel, the second owner shall be entitled to all benefits contained in warranty; (C) If the transfer takes place after the initial 10, 5 or 3 year period ends, the length of the warranty shall be reduced to a two-year period after ownership changes. During this two-year period, GAF's reimbursement to the second owner will be based on the dollar per square value, reduced by the amount of use that has been received from date of installation.	Warranty is transferred to new buyers of the building when title to the real estate is transferred.
16. Cost to obtain	GAF charges for this warranty; contact GAF for pricing information	None	None, fully transferable to al subsequent property owners.
17. Is the warranty backed by insurance coverage?	No	No	Georgia-Pacific indicates that it is self-insured
18. Is the warranty an additional or exclusive remedy for the owner?	Warranty is exclusive and replaces all other warranties, express or implied. Warranty is owner's exclusive remedy from GAF and represents the sole remedy available to any owner of GAF's shingles. GAF makes no other representations or warranty of any kind. Warranty may not be changed or modified. No one, including any representative or employee of GAF, has authority to assume any additional liability or responsibility for GAF.	Warranty is exclusive and replaces all other warranties, express or implied. Warranty is exclusive remedy from GAF and represents the sole remedy available to any owner of GAF's shingles. GAF makes no other representations or warranty of any kind. Warranty may not be changed or modified. No one, including any representative or employee of GAF, has authority to assume any additional liability or responsibility for GAF.	Warranty is sole and exclusive remedy. Georgia-Pacific makes no representation or warranty of any kind, other than as set forth in the limited Warranty. Georgia-Pacific's liability is limited to the provisions of the warranty, whether any claim against it is based upon strict liability, negligence, breach of warranty or any other theory or cause of action. No person is authorized to alter the warranty either orally or in writing.
19. Special features/conditions	<p>In order to obtain this warranty, roof must be installed by a GAF Master Elite Residential Roofing Contractor. The roof system must not be installed over an existing roof, all existing materials must be removed to deck. COBRA ridge ventilation must be used in conjunction with adequate soffit ventilation.</p> <p>GAF ridge cap shingles or shingles that correspond to the shingle product installed on the roof must be used. GAF WeatherWatch or StormGuard leak barrier must be used in valleys and around dormers, sidewalls, farewells, chimneys and plumbing vents. In northern climates WeatherWatch or StormGuard leak barrier must also be used at all eaves to at least 24" inside of the warm wall. GAF Shingle-Mate roof deck protection or Leatherback underlayment must be used. New metal flashing must be installed unless existing flashing is in like-new condition.</p> <p>If claim arises out of an application error in the roof system or covered flashings which is discovered or discoverable within the first two years after installation, it is the obligation of the Master Elite roofing contractor to make all necessary repairs. In the event that the Master Elite, roofing contractor is unable or unwilling to perform these repairs, GAF will arrange to have roof repaired. GAF reserves the right to discontinue or modify its shingles, including the colors available, so any replacement shingles may not be an exact match.</p> <p>Owner will receive Golden Pledge Limited Warranty from GAF within 45 days. If warranty is not received, contact Master Elite Contractor or GAF at 1-888-532-5767.</p>	GAF reserves the right to arrange directly for shingles to be repaired, recovered or cleaned instead of reimbursing owner for such work. GAF reserves the right to discontinue or modify its shingles, including colors available, so any replacement shingles may not be an exact match.	
20. Executed by owner?	GAF Master Elite contractor must complete and return warranty application form and the appropriate fee.	Owner should sign and submit to GAF at P.O. Box 395, Ingomar, PA 15127-0395 warranty registration form, but registration is not required for warranty coverage	No

Asphalt Shingle Warranties

1. Identity of issuing entity	Herbert Malarkey Roofing Company	Herbert Malarkey Roofing Company	Herbert Malarkey Roofing Company
2. Title, original publication date, and identifying symbol, if any	"Limited Warranties for the Hurricane Shingle"	"Legacy Limited Warranties"	"Highlander-25 Limited Warranty"
3. Products covered	Type 240 SBS Metric Polyglass	Type 272 SBS Laminated Legacy; Type 273 SBS Laminated Legacy	Type 271 SBS Laminated Highlander-25
4. Scope of coverage	Malarkey warrants the Hurricane shingles are free from manufacturing defects and will resist discoloration or staining due to algae growth which causes an obvious and unsightly appearance on the granules.	Malarkey warrants to the original home building owner that the Legacy shingles are free from manufacturing defects that reduce the life of the shingle. Legacy shingles using 3M Algae Block will resist discoloration or staining due to algae growth which causes an obvious and unsightly appearance on the granules.	Malarkey warrants to the original home/building owner that the Highlander shingles are free from manufacturing defects that reduce the life of the shingle.
4a. Does the warranty provide coverage for defects in manufacture?	Yes	Yes	Yes
4b. Does the warranty provide coverage for defects in application?	No	No	No
4c. Does the warranty limit coverage to leakage and, if no, what defects or conditions other than leakage are covered?	No; warranty covers manufacturing defects, including algae resistance.	No; warranty covers manufacturing defects, including algae resistance.	No; warranty covers manufacturing defects that reduce the life of shingle.
4d. Does the warranty provide coverage for flashings, metal work, or related work that may be affected and/or need to be repaired or removed?	No	No	No
5. Length of coverage	Manufacturing Defects: 30 years Algae Resistance: 15 years Wind: 5 years	Manufacturing Defects: 40 years (See item 15 below) Algae Resistance: 15 years Wind: 5 years	25 years (see item 15 below)
5a. Is the warranty prorated?	Yes	Yes	yes
5b. When does the prorating begin?	After one year	After ten (10) years	After three years
5c. What is the prorating formula?	After one year, warranty is reduced by 1/360 for each month since original application, less all sums previously paid (so that at the beginning of the second year, warranty would be reduced by 12/360 plus any sums previously paid).	For Manufacturing Defects: After 10 yrs, warranty is reduced by 1/480 for each month since original application, less all sums previously paid (so that at the beginning of 4th yr, warranty would be reduced by 120/480 plus any sums previously paid). For Algae Resistance: After the first year, warranty is reduced by 1/180 for each month since original application (so that at the beginning of the 2 nd year, warranty would be reduced by 12/180).	After 3 years, warranty is reduced by 1/300 for each month since original application, less all sums previously paid (so that at the beginning of the warranty would be reduced by 36/300 plus any sums previously paid.)
6. Nature of remedy	Malarkey's sole liability is, at its option, to repair or replace the defective shingles, or to pay to the owner an amount not exceeding the original cost of the shingles plus reasonable installation costs. After one year, the warranty is pro-rated. After verification that the shingles are defective, Malarkey will perform its obligations within 45 days of receipt of notice, unless performance is delayed by causes beyond Malarkey's control. For Algae resistance, Malarkey's sole liability is, at its option, to repair or replace the defective shingles or to pay to the owner an amount not exceeding original cost of the shingles plus reasonable installation costs. For 1st year, payment to owner for those shingles exhibiting discoloration due to algae will be an amount not exceeding their original cost of defective shingles plus reasonable installation costs. During the remaining 14 year warranty period, the maximum repair or replacement payment be an amount not exceeding the original cost of those shingles exhibiting discoloration excluding all installation costs, less a percentage which is based on the number of months elapsed in the warranty period divided by the fifteen year warranty period.	Malarkey's sole liability is, at its option, to repair or replace the defective shingles or to pay to the owner an amount not exceeding the replacement cost of the shingles plus reasonable installation costs. After verification the shingles are defective, Malarkey will perform its obligations within 45 days of receipt of notice, unless performance is delayed by caused beyond Malarkey's control. For Algae resistance, Malarkey's sole liability is, at its option, to repair or replace the defective shingles or to pay to the owner an amount not exceeding the original cost of the shingles plus reasonable installation costs. For the first year, the payment to the owner for those shingles exhibiting discoloration due to algae will be an amount not exceeding the original cost of the defective shingles plus reasonable installation costs. During the remaining fourteen year warranty period, the maximum repair or replacement payment will be an amount not exceeding the original cost of those shingles exhibiting discoloration excluding all installation costs, less a percentage which is based on the number of months elapsed in the warranty period divided by the 15 year warranty period.	Malarkey's sole liability is, at its option, to repair or replace the defective shingles or to pay to the owner an amount not exceeding the replacement cost of the shingles plus reasonable installation costs. After verification that the shingles are defective, Malarkey will perform its obligations within 45 days of receipt of notice, unless performance is delayed by causes beyond Malarkey's control.
6a. Does the warranty provide for furnishing of replacement shingles?	Yes	Yes	Yes
6b. Does the warranty provide for labor to install replacement shingles?	Yes for manufacturing defects and for the first year for algae resistance. No for years 2-14 for algae resistance.	Yes during the first 10 (10) years; no during years 11-40.	Yes
6c. Does the warranty provide for labor to remove defective shingles?	Warranty states Malarkey will repair or replace defective shingles or pay the owner an amount not exceeding the original cost of the shingles plus reasonable installation costs. [Malarkey indicates warranty does not provide for labor to remove defective shingles.]	Warranty states Malarkey shall repair or replace defective shingles or pay to the owner an amount not exceeding the replacement cost of the shingles plus reasonable installation costs. [Malarkey indicates warranty does not provide labor to remove defective shingles.]	No
6d. Does the warranty cover disposal of defective shingles?	No	No	No
6e. Does the warranty apply to any materials other than shingles?	No	No	No

7. Is there a monetary limitation?	For the 1st year, Malarkey's liability shall not exceed the original cost of shingles plus reasonable installation costs. After one year, Malarkey's maximum contribution toward the repair or replacement payment to owner will not exceed the original cost of the defective shingles plus installation costs, less a percentage based on the number of months elapsed in the warranty period divided by the 360 month warranty period, less all sums previously paid under the warranty.	For the first ten years, Malarkey's maximum liability shall be equal to the reasonable replacement cost of the defective shingles plus reasonable installation costs, less all sums previously paid under the warranty. After 10 yrs, Malarkey's maximum repair or replacement payment to the owner will be an amount not exceeding the replacement cost of the defective shingles that cause leaks, less a percentage based on the number of months elapsed in the warranty period divided by 480 months warranty period less all sums previously paid under this warranty.	For the first 3 years, Malarkey's maximum liability shall be equal to the reasonable replacement costs of the defective shingles plus reasonable installation costs, less all sums previously paid under the warranty. After three years, Malarkey's maximum repair or replacement payment to the owner will be an amount not exceeding the replacement cost of the defective shingles plus reasonable installation costs, less a percentage based on the number of months elapsed in the warranty period divided by 300 months warranty period, less all sums previously paid under warranty.
8. Specific exclusion from coverage (See Warranty Introduction for codes)	1, 4, 5, 6, 7, 8, 9, 10, 13, 16, 19, 23	1, 4, 5, 6, 7, 8, 9, 10, 13, 16, 19, 23	1, 4, 5, 6, 7, 8, 9, 10, 13, 16, 19, 23
9. Wind coverage/exclusion	Malarkey warrants the Hurricane shingles will resist damage from winds up to 100 mph for five years. Malarkey's sole liability will be to supply new shingles to replace those damaged or blown from the roof by the wind. No amount will be paid for removal of damaged shingles or the installation of replacement shingles.	Malarkey warrants that up to five (5) years the Legacy shingles will resist damage from winds up to 110 miles per hour. Malarkey's wind warranty applies only if the shingles are sealed, whether by hand sealing or by the self sealing strips. Hand sealing is recommended when average daytime temperature is not sufficient for the shingles to self-seal during installation. Malarkey's sole liability is, at its option, to repair defective shingles or to pay to the owner an amount not exceeding original cost of the shingles plus reasonable installation costs. No amount shall be paid for removal or disposal of damaged shingles in high wind areas, as identified by the National Weather Service, shingles should be installed using six fasteners and per Malarkey's written installation instructions. All shingles which contain a factory applied self sealing strip must be subjected to sunlight for several days before full sealing will occur. Shingles installed in fall or winter may not seal until the following spring, consequently the shingles should be hand sealed. Shingles which do not receive direct sunlight or which are not exposed to adequate surface temperatures may never seal. This is the nature of shingles & failure to seal down under such circumstances is not a manufacturing defect. If self sealing shingles that have been exposed to adequate temperatures & direct sunlight fail to activate the self sealing strips during the 1st year after application, Malarkey will have no liability for such defects unless proper written notification has been made & Malarkey has been allowed the opportunity to hand seal any non-sealed shingles at its own expense.	Malarkey warrants that up to five (5) years the Highland-25 shingles will resist damage from winds up to 60 miles per hour. Malarkey's wind warranty applies only if the shingles are sealed, whether hand sealing or by the self sealing strips. Hand sealing is recommended when average daytime temperature is not sufficient for shingles to self-seal during installation. Malarkey's sole liability is, at its option, to repair defective shingles or to pay to the owner an amount not exceeding the original cost of the shingles plus reasonable installation costs. No amount shall be paid for removal or disposal of damaged shingles. In high wind area as identified by National Weather Service, shingle should be installed six fasteners and per Malarkey's printed installation instructions. All shingles which contain a factory applied self sealing strip must be subjected to sunlight for several days before full sealing will occur. Shingles installed in the fall or winter may not seal until the following spring, consequently the shingles should be hand sealed. Shingles which do not receive direct sunlight or which are not exposed to adequate surface temperatures may never seal. This is the nature of shingles & failure to seal down under such circumstances is not a manufacturing defect. If any self sealing shingles that have been exposed to adequate temperatures & direct sunlight fail to activate self sealing strips during the 1st year after application, Malarkey will have no liability for such defects unless proper written notification has been made and Malarkey has been allowed the opportunity to hand seal any non-sealed shingles at its own expense.
10. Notification requirements	Claims shall be made in writing, by certified or registered mail, within 30 days of discovery, and prior to any repairs being made.	Claims shall be made in writing, by certified or registered mail, within 30 days of discovery and prior to any repairs being made	Claims shall be made in writing, by certified or registered mail, within 30 days of discovery and prior to any repairs being made
11. Determination of warranty applicability	Malarkey verifies that shingles are defective	Malarkey verifies the shingles are defective.	Malarkey verifies the shingles are defective.
12. Does the issuing entity manufacture and/or sell the shingles?	Malarkey manufactures and sells the shingles.	Malarkey manufactures and sells the shingles.	Malarkey manufactures and sells the shingles
13. Specific conditions to make warranty ineffective or void (See warranty introduction for codes)	C, G, I	C, G, I	C, G, I
14. Inclusion of consequential damages	No	No	No
15. Assignability	Warranty is valid ony to the original owner and is not transferable	Warranty may be transferred 1 time to the subsequent owner only during the first seven years. Once the warranty has been transferred, the new owner's warranty period will be 10 years from date of transfer. Current holder of the warranty must notify Malarkey in writing by registered or certified mail within 30 days from the date title to the property changed. Requests to transfer warranty must include 1) name and address of current holder of the warranty, 2) date of original completed installation, 3) proof of purchase of shingles, 4) the address where the shingles are installed, 5) name and address of the new owner, and 6) the date of title transfer of the property.	Warranty may be transferred 1 time to the subsequent owner only during first seven years. Once warranty has been transferred, the new owner's warranty period will be 7 yrs from date of transfer. Current holder of the warranty must notify Malarkey in writing by registered/certified mail within 30 days from date title to the property changed. Requests to transfer the warranty must include (1) name and address of the current holder of the warranty, (2) date of original completed installation, (3) proof of purchase of the shingles, (4) the address where the shingles are installed, (5) the name & address of new owner, and (6) date of title transfer of the property.
16. Cost to obtain	None	None	None
17. Is the warranty backed by insurance coverage?	No	No	No
18. Is the warranty an additional or exclusive remedy for the owner?	Warranties are the only express warranties made by Malarkey in connection with the sale of its product. No person is authorized to alter these limited warranties either orally or in writing.	Warranties are the only express warranties made by Malarkey in cononection with the sale of its product. No person is authorized to alter warranty either orally or in writing.	Warranties are the only express warranties made by Malarkey in connection with the sale of its product. No person is authorized to alter warranty either orally or in writing.
19. Special features/conditions	Malarkey to be provided with samples before any steps are taken to repair the roof. Any repairs made prior to or during investigation period without Malarkey's prior written approval will be at owner's expense.	Malarkey is to be provided with samples before steps are taken to repair roof. Any repairs made prior to or during the investigation period without Malarkey's prior written approval will be at owner's expense.	Malarkey is to be provided with samples before teps are taken to repair roof. Any repairs made prior to or during the investigation period without Malarkey's prior written approval will be at owner's expense.
20. Executed by owner?	Yes; Owner must complete warranty registration card & return to Malarkey at Herbert Malarkey Roofing Company, P.O. Box 17217 Kenton Station, Portland, Oregon 97217-0217, within 30 days of installation or warranty will be void.	Yes; Owner must complete warranty registration card and return it to Herbert Malarkey Roofing Company, P.O. Box 17217, Portland, Oregon 97217-0217, within 30 days of installation or warranty will be void.	Yes; Owner must complete warranty registration card & return it to Herbert Malarkey Roofing Company, P.O. Box 17217, Portland, OR 97217-0217, within 30 days of installation or warranty will be void.

Asphalt Shingle Warranties

1. Identity of issuing entity	Herbert Malarkey Roofing Company	Herbert Malarkey Roofing Company	IKO Manufacturing Inc.
2. Title, original publication date, and identifying symbol, if any	"Northwest-30 Limited Warranties"	"Limited Warranty;" August 18, 2000	"Asphalt Shingle Limited Lifetime Warranty Dynasty Warranty Coverage"; January 1, 1997
3. Products covered	Northwest 30 shingles	Type 202, Dura Seal-20, Type 204 Dura Seal-25, Type 230 Alaskan	Dynasty (See Special Features/Conditions.)
4. Scope of coverage	Malarkey warrants to the original home building owner that the Northwest 30 shingles are free from manufacturing defects that reduce the life of the shingle.	Malarkey warrants its shingles to be free from manufacturing defects.	IKO warrants to the original consumer-purchaser that the Dynasty shingle are free from manufacturing defects that result in leaks and IKO warrantys against discoloration due to algae growth.
4a. Does the warranty provide coverage for defects in manufacture?	Yes	Yes	Yes
4b. Does the warranty provide coverage for defects in application?	No	No	No
4c. Does the warranty limit coverage to leakage and, if no, what defects or conditions other than leakage are covered?	No; warranty covers manufacturing defects during the first five years.	No; warranty covers manufacturing defects	No; warranty also covers algae resistance.
4d. Does the warranty provide coverage for flashings, metal work, or related work that may be affected and/or need to be repaired ro removed?	No	No	No
5. Length of coverage	Manufacturing defect: 30 years Wind: 5 years	30 years: Type 230 Alaskan 25 years: Type 204 Dura Seal-25 20 years: Type 202 Dura Seal-20	For manufacturing defects: warranty extends for the lifetime of the original consumer-purchaser retains ownership of the individual residential property on which the shingles were installed. Lifetime warranty ends automatically upon the sale or transfer of the property or upon death of the individual who was the property owner at the time the Dynasty shingles were installed. Dynasty shingles installed on any type of building other than individual residences, such as, but not limited to, corporate, commercial, governmental, condominium, school, religious, apartment or multi-family type buildings, the length of the warranty is 40 years. If the warranty is transferred during the first 7 years, the total duration of the warranty is limited to 15 years. For algae resistance: 10 years For wind coverage: 5 years
5a. Is the warranty prorated?	Yes	Yes	Yes
5b. When does the prorating begin?	After five (5) years	Immediately upon application	After 7 years
5c. What is the prorating formula?	After 5 years, warranty is reduced by 1/360 for each month since original application, less all sums previously paid (so that at the beginning of 6th year, warranty would be reduced by 60/360 plus any sums previously paid).	The pro-rated adjustment will be calculated by multiplying the original reasonable cost of the material & installation, times number of squares of defective shingles, divided by total number of years in the applicable warranty period, and then multiplied by the number of years remaining.	After the initial 7-year period, the warranty is reduced by 1/225 per month for the first 15 years of the warranty period (so that at the beginning of 8th year, warranty would be reduced by 84/225 and reduced by an additional 1/225 for each month through year 15). After first 15 years, the warranty is reduced by 384/480 (80%) for months 181-480 and warranty is reduced 432/480 (90%) after 480 months.
6. Nature of remedy	Malarkey's sole liability is, at its option, to repair or replace the defective shingles, or to pay to the owner an amount not exceeding the original cost of shingles plus reasonable installation costs. After 1 year, the warranty is pro-rated. After verification that the shingles are defective, Malarkey will perform its obligations within forty-five (45) days of receipt of notice, unless performance is delayed by causes beyond Malarkey's control.	Malarkey shall, at its option, elect to repair or replace the defective shingles or pay to the owner an amount not to exceed the original reasonable cost of the shingles and installation, pro-rated for the number of years remaining on the warranty, less all sums previously paid under the warranty. Malarkey shall perform its obligations under the warranty within 45 days of receipt of notice, unless performance is delayed by causes beyond Malarkey's control.	During the first seven years, IKO will at its option have the shingles repaired or replaced free of charge, exclusive of costs for tear-off, flashing, and metal work or required repairs to associated defects or damage. After seven years, IKO's liability toward repair or replacement is the pro-rated amount of the current value of the shingles only, exclusive of labor, disposal, and tear-off. In the event that an algae develops causing discoloration of the Dynasty shingles within the first ten years, IKO will at its option clean, repair, or replace (including installation labor costs where necessary) only those shingles which have developed the algae growth that cause discoloration.
6a. Does the warranty provide for furnishing of replacement shingles?	Yes	Yess	Yes
6b. Does the warranty provide for labor to install replacement shingles?	Yes during the first five (5) years. No during years 6-30.	Yes	For manufacturing defects: Yes, for the first 7 years; no, for the balance of the warranty. For algae resistance: Yes for the first year; no, for the nine year balance of the warranty.
6c. Does the warranty provide for labor to remove defective shingles?	Warranty states Malarkey shall repair or replace defective shingles or pay owner a prorated amount not to exceed the original reasonable cost of the shingles and installation. [Malarkey indicates warranty does not provide ;abpr to remove defective shingles.]	Warranty states Malarkey will repair or replace defective shingles or pay owner a prorated amount not to exceed the original reasonable cost of the shingles and installation. [Malarkey indicates warranty does not provide labor to remove defective shingles.]	No
6d. Does the warranty cover disposal of defective shingles?	No	No	No
6e. Does the warranty apply to any materials other than shingles?	No	No	No
7. Is there a monetary limitation?	For the first five years, Malarkey's maximum liability shall be equal to the reasonable replacement costs of the defective shingles plus reasonable installation costs, less all sums previously paid under warranty. After five years, Malarkey's maximum repair or replacement payment to owner will be an amount not exceeding the replacement cost of the defective shingles that cause leaks, less a percentage based on the number of months elapsed in the warranty period divided by 360 months warranty period, less all sumbs previously paid under this warranty.	Malarkey's maximum liability shall not exceed the original reasonable cost of the shingles and installation, pro-rated for the number of years remaining on the warranty, less all sums previously paid. Maximum liability not to exceed values as stated in RS Means Residential Cost Data	During the first seven years, IKO's maximum liability shall be equal to the reasonable replacement cost of the defective shingles that are proven to have manufacturing defect which has resulted in leaks. After the initial 7-year period, IKO's maximum liability toward repairs or replacement shall be a prorated amount of the current value of the shingles only (exclusive of labor, disposal, and tear-off).

8. Specific exclusion from coverage (See Warranty Introduction for codes)	1, 4, 5, 6, 7, 8, 9, 10, 13, 16, 19, 23	1, 4, 5, 6, 7, 8, 9, 10, 13, 16, 19, 23	1, 2, 4, 6, 8, 9, 13, 14, 17, 19, 23, 24. Warranty also excludes any back surfacing transfer or asphalt staining, any costs related to disposal, & any costs related to the removal of any asbestos present in the roof to which IKO shingles are installed.
9. Wind coverage/exclusion	<p>Malarkey warrants that up to five (5) years from the date of installation, the Northwest shingles will resist damage from winds up to 60 mph.</p> <p>Malarkey's wind warranty applies only if shingles are sealed whether by hand sealing or by the self sealing strips. Hand sealing is recommended when average daytime temperature is not sufficient to self-seal during installation. Malarkey's sole liability is, at its option, to repair or replace defective shingles or to pay to owner an amount not exceeding the original cost of the shingles plus reasonable installation costs. No amount shall be paid for removal or disposal of damaged shingles. In high wind areas, as identified by the National Weather Service, shingles should be installed using six fasteners and per Malarkey's printed installation instructions.</p> <p>All shingles which contain a factory applied self sealing strip must be subjected to sunlight for several days before full sealing will occur. Shingles installed in the fall or winter may not seal until the following spring, consequently the shingles should be hand sealed. Shingles which do not receive direct sunlight or which are not exposed to adequate surface temperatures may never seal. This is the nature of shingles & failure to seal down under such circumstances is not a manufacturing defect. If any self-sealing shingles that have been exposed to adequate temperatures & direct sunlight fail to activate the self sealing strips during the first year after application, Malarkey will have no liability under this warranty.</p>	<p>Malarkey warrants that up to 5 years from the date of installation, the shingles will resist damage from winds up to 54 mph for Types 202 and 204, nd for winds up to 100 mph for Type 230 SBS.</p> <p>Malarkey's sole liability for wind damage shall be to supply new shingles to replace those damaged or blown off by the wind. No amount will be paid by Malarkey for removal of damaged shingles or installation of replacement shingles.</p> <p>Type 230 SBS shingles are to be hand sealed when average daytime temperature drops below 50°F.</p>	<p>IKO warrants its shingles for 5 years against wind blow-off damage due to wind velocities, including "gusts" up to a maximum of 80 mph. In the event it is proven there has been wind damage from winds up to 80 mph, IKO to furnish similar shingles necessary for replacement for damaged shingles. Warranty does not cover the labor costs for the removal of damaged shingles or the application of the replacement shingles.</p> <p>All self-sealing strip shingles must be subjected to direct sunlight for several days before full sealing will occur. Shingles installed in fall or winter may not seal until the following spring. Shingles that do not receive direct sunlight or are exposed to adequate surface temperatures may not seal. Damage to the factory applied self-sealing strip by dust, sand, or foreign matter will prevent the sealing strip from activating. Failure to seal down under such circumstances is not a manufacturing defect.</p> <p>For shingles failing to activate during the 1st yr after application, IKO will have no liability under warranty for defects unless proper written notification has been made & IKO has been allowed the opportunity to hand</p>
10. Notification requirements	Written notice of the discovery of manufacturing defects, by registered or certified mail, shall be given to Malarkey within 30 days after discovery and prior to any repairs being made.	Written notice of the discovery of manufacturing defects, by registered, certified mail, shall be given to Malarkey within 30 days after discovery.	Claims must be filed within thirty days of discovery of the alleged defect in the following manner: (1) contact IKO Quality Services at 1-800-433-2811; (2) furnish the information as requested by the quality services representative; (3) complete, sign and return the home owner inquiry survey including proof of purchase indicating the IKO product involved, the required number of pictures, and two full sample shingles; and (4) provide access to the IKO products in question for the purpose of investigation if requested.
11. Determination of warranty applicability	Malarkey verifies the shingles are defective.	Malarkey verifies the shingles are defective.	IKO will, within approximately sixty days of receipt of the completed home owner inquiry survey, evaluate the claim and respond. Any claimed defect for which notice is not received by IKO within the applicable warranty period is not covered. Failure to provide requested information will cause the claim not to be considered.
12. Does the issuing entity manufacture and/or sell the shingles?	Malarkey manufactures and sells the shingles.	Malarkey manufactures and sells the shingles.	IKO manufacturers and sells the shingles.
13. Specific conditions to make warranty ineffective or void (See warranty introduction for codes)	C, G, I	C, G, I	I; warranty does not apply if slope is less than 4:12 or shingles are applied over insulated roof deck panels.
14. Inclusion of consequential damages	No	No	No
15. Assignability	Warranty may be transferred 1 time to subsequent owner only during the first five years. Once the warranty has been transferred, the new owner's warranty period will be 10 yrs from date of transfer. The current holder of the warranty must notify Malarkey in writing by registered or certified mail within 30 days from the date title to property changed. Request to transfer the warranty must include 1) name & address of the current holder of the warranty, 2) date of original completed installation, 3) proof of purchase of the shingles, 4) the address where the shingles are installed, 5) the name and address of the new owner, 6) the date of title transfer of the property.	Wararnty is valid only to the original owner and is not transferable.	Warranty may be transferred by the original consumer-purchaser only to a subsequent property owner only within the first 7-year period under the following conditions: 1) notification of request for transfer must be received in writing by IKO at 6600 S. Central Ave, Chicago, IL 60638, Attn: Quality Services, from the original consumer-purchaser, within 30 days after the date of real estate transfer. Request must include a copy of the original invoice showing proof of purchase of the IKO product & a copy of the real estate transfer; and 2) a transfer fee of \$100 must accompany all requests for transfer.
16. Cost to obtain	None	None	None
17. Is the warranty backed by insurance coverage?	No	No	No
18. Is the warranty an additional or exclusive remedy for the owner?	The limited shingle warranty & limited wind warranty are the only express warranties made by Malarkey in connection with the sale of its product. No representative of Malarkey or any other person has any authority whatsoever to accept from or for Malarkey any additional or different liability or responsibility for Malarkey products.	The limited shingle warranty & limited wind warranty are the only express warranties made by Malarkey in connection with the sale of its product. No representative of Malarkey or other person has any authority whatsoever to accept from or for Malarkey any additional or different liability or responsibility for Malarkey products.	This warranty replaces all other oral or written warranties, liabilities or obligations of IKO. IKO will not be liable for any oral statement or written statement about shingle, whether such statements are made by an agent or employee of IKO or by any other person. IKO does not authorize its representatives, distributors, contractors, or dealers to make any changes or modifications to this warranty; excludes UCC warranties.
19. Special features/conditions	Malarkey shall be given opportunity to inspect the material and to be provided with samples before any steps are taken to adjust the claim.	Malarkey shall be given opportunity to inspect the material and to be provided with samples before any steps are taken to adjust the claim.	This warranty only covers Dynasty shingles when they are installed on roof slopes of 4 in 12 or greater. No action for breach of this limited warranty shall be brought against IKO later than one year after any cause of action has accrued. IKO reserves the right to discontinue or modify any of its products, including the color blend of its shingles, without notice to the original consumer-purchaser and shall not be liable to the original consumer-purchaser as a result of this modification or discontinuance. IKO will have no liability in the event that replacement material may vary in color in comparison to the original product as a result of product changes or normal weathering.
20. Executed by owner?	Yes; Owner must complete warranty registration card, return it to Herbert Malarkey Roofing Co., P.O. Box 17217 Kenton Station, Portland, Oregon 97217-0217, within 30 days of installation or warranty will be void.	Yes; Owner must complete warranty registration card and return it to Herbert Malarkey Roofing Company, P.O. Box 17217 Kenton Station, Portland, Oregon 97217-0217, within 30 days of installation or warranty will be void.	No

Asphalt Shingle Warranties

1. Identity of issuing entity	IKO Manufacturing Inc.	Owens Corning	Owens Corning
2. Title, original publication date, and identifying symbol, if any	"Asphalt Shingle Limited Warranty"; February 1, 2001	"Limited Warranty on Roofing Shingles;" April 2001; Pub. No. 16-RR-24767-B	"Limited Warranty on WeatherGuard High Wind 110 Shingles and WeatherGuard High Wind 110 Hip & Ridge;" April 2001; Pub. No. 16-RR-43839-A
3. Products covered	Chateau, Crowne 30, Cambridge 25, Cambridge 30, Cambridge 40, 40 AR, Renaissance XL, Aristocrat 25, Imperial Gentry 25, Royal Victorian, Skyline 25, Cathedral XL, Imperial Seal 20, Imperial Glass 20, Regency, Marathon 20, 25, 30; ArmourLock 20, Ultralock 25	Oakridge 40 Deep Shadow, Oakridge 40 AR Deep Shadow, Oakridge 30 Shadow, Oakridge 30 AR Shadow, Oakridge 25, Oakridge 25 AR, Prominence, Prominence AR Supreme, Supreme 30, Supreme, Supreme AR Glaslock, Classic, Classic AR	WeatherGuard 40 High Wind 110 shingles, WeatherGuard 40 AR High Wind 110 shingles, WeatherGuard 30 AR High Wind 110 shingles; WeatherGuard High Wind 110 Hip & Ridge, WeatherGuard AR High Wind 110 Hip and Ridge
4. Scope of coverage	IKO warrants to the original consumer-purchaser that its shingles are free from manufacturing defects that result in leaks	Owens Corning warrants to the original consumer purchaser that its roofing shingles are free from manufacturing defects that materially affect their performance. Shingles specifically labeled as algae resistant (AR) are warranted against discoloration caused by algal, fungal, lichen or cyanobacterial growth.	Owens Corning warrants to the original consumer purchaser that Owens Corning WeatherGuard shingles are free from any manufacturing defects that materially affect their performance. Shingles and hip and ridge specifically labeled as algae resistant are warranted against discoloration caused by algae, fungi, lichen or cyanobacterial growth.
4a. Does the warranty provide coverage for defects in manufacture?	Yes	Yes	Yes
4b. Does the warranty provide coverage for defects in application?	No	No	No
4c. Does the warranty limit coverage to leakage and, if no, what defects or conditions other than leakage are covered?	Yes	No; warranty covers manufacturing defects that materially affect shingle performance.	No; warranty covers manufacturing defects that materially affect shingle performance. Algae resistant shingles are warranted against discoloration.
4d. Does the warranty provide coverage for flashings, metal work, or related work that may be affected and/or need to be repaired or removed?	No	No	No
5. Length of coverage	40 years: Regency, Cambridge 40 30 years: Chateau 25, Crowne 30, Cambridge 30 25 years: Cambridge 25, Renaissance XL, Aristocrat 25, Imperial, Gentry 25, Royal Victorian, Skyline 25, Cathedral XL, Marathon 25 20 years: ArmourLock 20 (See Item 15 for effect of transfer.)	For Manufacturing Defects: 40 years: Oakridge 40 Deep Shadow 30 years: Oakridge 30 Shadow, Prominence, Supreme 30 25 years: Oakridge 25, Supreme, Glaslock 20 years: Classic For Algae Resistance: 10 years For Wind Damage: 5 years	For Manufacturing Defects: 40 years: WeatherGuard 40 High Wind 110 shingles, WeatherGuard 40 AR High Wind 110 shingles 30 years: WeatherGuard 30 AR High Wind 110 shingles For Algae Resistance: 10 years For Wind Damage: 10 years if WeatherGuard 110 Hip and Ridge is used; otherwise 5 years
5a. Is the warranty prorated?	Yes	Yes	Yes
5b. When does the prorating begin?	After 5 yrs: Chateau, Crowne 30, Cambridge 40, Cambridge 30, Cambridge 25, Renaissance XL, Aristocrat 25, Imperial Gentry 25, Royal Victorian, Skyline 25, Cathedral XL, Regency After 3 yrs: ArmourLock 20	For Manufacturing Defects: After 3 years for Classic shingles; after 5 years for Oakridge 40 Deep Shadow, Oakridge 30 Shadow, Oakridge 25, Prominence, Supreme 30 and Glaslock	For Manufacturing Defects: after five (5) years For Algae Resistance: after 1 year
5c. What is the prorating formula?	After the initial period (3 or 5 years, depending upon the product (Item 5b above), IKO warranties are reduced by 1/225 per month for first 15 years of the warranty period. After first 15 years, the monthly reduction figure changes as follows: for ArmourLock 20, warranty is reduced by 1/300 per month; for Cambridge 25, Renaissance XL, Aristocrat 25 & Marathon 25, Ultralock 25, Imperial Gentry 25, Skyline 25 & Cathedral XL warranty is reduced by 1/600 per month; for Chateau, Cambridge 30/40 & Crowne 30 the warranty is reduced by 1/900 per month (so that at the beginning of the 16th year, each warranty would be reduced by 180/225 & then either 1/300, 1/600 or 1/900 for each month thereafter, depending upon the type of shingle.	Oakridge 40 Deep Shadow: After five (5) years, warranty is reduced by 1/480 for each month of service from the date of installation (so that at the beginning of the sixth year, warranty would be reduced by 60/480). Oakridge 30 Shadow, Prominence, Supreme 30: After five years, warranty is reduced by 1/360 for each month of service from the date of installation (so that at the beginning of the 6th year, warranty would be reduced by 60/360). Oakridge 25, Supreme, Glaslock: After five years, warranty is reduced by 1/300 for each month of service from the date of installation (so that at the beginning of the sixth year, warranty would be reduced by 60/300). Classic: After three years, warranty is reduced by 1/240 for each month of service from the date of installation (so that at the beginning of the fourth year, warranty would be reduced by 36/240).	For Manufacturing Defects: After 5 years, warranty for WeatherGuard 40 High Wind & WeatherGuard 40 AR shingles is reduced by 1/480 for each month since original installation (so that at the beginning of the sixth year, warranty would be reduced by 60/480). After 5 years, warranty for WeatherGuard 30 AR shingles is reduced by 1/360 for each month since original installation (so that at the beginning of the sixth year, warranty would be reduced by 60/360). For Algae Resistance Shingles - After 1 year, warranty is reduced by 1/120 for each month since original installation (so that at the beginning of the second year, warranty would be reduced by 12/120).
6. Nature of remedy	IKO will at its option have the shingles repaired or replaced free of charge, exclusive of costs for tear-off, flashings, and metal work.	For the first five years for all shingles except Classic and for three years for Classic, Owens Corning will pay 100% of the material and labor costs, as reasonably determined by Owens Corning, to repair, replace or recover defective shingles, exclusive of metal work, flashing or other related work. Owens Corning will not pay for the cost to remove or dispose of shingles. After five years for all shingles except Classic and after three years for Classic, Owens Corning will pay only for the reasonable material cost, not labor, to repair, replace or recover shingles, and the amount will be prorated. Alternatively, Owens Corning will provide replacement shingles at its sole reasonable discretion. If algae resistant shingles are discolored by algae growth during the first year, Owens Corning will cover the cost, including labor, as reasonably determined by Owens Corning, to repair, replace or recover the affected AR shingles, but not to exceed the initial cost of the Owens Corning materials and their installation. After one year, labor will not be covered and coverage will be prorated. Repair refers to cleaning or otherwise removing any algae growth from affected AR shingles. Decision whether AR shingles should be repaired, replaced or recovered will be made solely by Owens Corning.	During the first 5 years, Owens Corning will pay 100% of the material and labor costs, as reasonably determined by Owens Corning, to repair, replace or recover defective shingles, exclusive of costs to remove or dispose of shingles. After 5 years, Owens Corning will pay only for reasonable material costs, not labor to repair, replace or recover shingles, and the amount will be prorated. Alternatively, Owens Corning may provide replacement shingles at its sole reasonable discretion. If algae resistant shingles and hip and ridge are discolored by algae growth during the first year, Owens Corning will cover the cost, including labor, as reasonably determined by Owens Corning, to repair, replace or recover the affected AR shingles and AR hip and ridge, but not to exceed the initial cost of the Owens Corning materials and their installation.
6a. Does the warranty provide for furnishing of replacement shingles?	Yes	Yes	Yes
6b. Does the warranty provide for labor to install replacement shingles?	Yes, for the first five years for Chateau, Crowne 30, Marathon 25, Cambridge 25/30/40, Ultralock 25, Renaissance XL, Royal Victorian, Cathedral 25, Skyline 25, Aristocrat 25 and Imperial Gentry 25 and, for the first three years for ArmourLock 20, the warranty includes labor to install replacement shingles; no, for the balance of each warranty.	Yes for the first five (5) years for all shingles except Classic. Yes for the first three (3) years for Classic. No after the initial 5 and 3 year periods	Yes for the first five (5) years; No for the balance of the warranty
6c. Does the warranty provide for labor to remove defective shingles?	No	No	No

6d. Does the warranty cover disposal of defective shingles?	No	No	No
6e. Does the warranty apply to any materials other than shingles?	No	No	Yes; warranty covers Owens Corning WeatherGuard hip and ridge.
7. Is there a monetary limitation?	During the first five years for Chateau, Crowne 30, Cambridge 25/30/40, Renaissance XL, Aristocrat 25, Imperial Gentry 25, Royal Victorian, Skyline 25 and Cathedral XL, Marathon 25, UltraLock 25, and three years for ArmourLock 20, IKO's maximum liability shall be equal to the reasonable replacement cost of the defective shingles that are proven to have a manufacturing defect which has resulted in leaks. After the initial period applicable to the specific product, IKO's maximum liability toward repairs or replacement shall be a prorated amount of the current value of the shingles only (exclusive of labor, disposal, and tear-off).	For manufacturing defects, during the first five years for all shingles except Classic, and during the first three years for Classic, Owens Corning's maximum costs shall be the labor and material costs, as reasonably determined by Owens Corning to repair, replace or recover defective shingles, exclusive of metal work, flashing or other related work and the cost to remove or dispose of defective shingles. For algae resistance, during the first year, Owens Corning's maximum cost shall not exceed the initial cost of the shingles and their initial installation. For the balance of the warranty, Owens Corning's maximum costs shall be prorated and the prorating formula for algae resistance shall exclude the cost of installation labor.	For manufacturing defects, during the first five years, Owens Corning's maximum costs shall be the labor and material costs, as reasonably determined by Owens Corning to repair, replace or recover defective shingles, exclusive of metal work, flashing or other related work and the cost to remove or dispose of defective shingles. For algae resistance, during the first year, Owens Corning's maximum cost shall not exceed the initial cost of the shingles and their initial installation. For the balance of the warranty, Owens Corning's maximum costs shall be prorated and the prorating formula for algae resistance shall exclude the cost of installation labor.
8. Specific exclusion from coverage (See Warranty Introduction for codes)	1, 2, 4, 6, 8, 9, 13, 14, 17, 19, 23, 24. Warranty also excludes any back surfacing transfer or asphalt staining, any costs related to disposal, and any costs related to the removal of any asbestos present in the roof to which IKO shingles are installed.	1, 2, 4, 6, 7, 8, 9, 14, 17, 19, 21, 23, 24	1, 2, 4, 6, 7, 8, 9, 14, 17, 19, 21, 23, 24
9. Wind coverage/exclusion	IKO warrants its shingles for five years against wind blow-off damage due to wind velocities, including "gusts" up to a maximum of 60 mph. For ArmourLock 20, UltraLock 25, Regency, Chateau, Cambridge 30/40 wind coverage up to 80 mph. In the event that it is proven that there has been wind damage from winds up to 60 mph, IKO will furnish similar shingles necessary for replacement for damaged shingles. Warranty does not cover the labor costs for the removal of damaged shingles or the application of the replacement shingles. All self-sealing strip shingles must be subjected to direct sunlight for several days before full sealing will occur. Shingles installed in fall or winter may not seal until the following spring. Shingles that do not receive direct sunlight for several days before full sealing will occur. Shingles that do not receive direct sunlight for several days before full sealing will occur. Damage to the factory applied self-sealing strip by dust, sand or foreign matter will prevent the sealing strip from activating. Failure to seal down under such circumstances is not a manufacturing defect. For shingles which fail to activate during the first year, after application, IKO will have no liability under warranty for defects unless proper written notification has been made and IKO has been allowed the opportunity to hand seal any non-sealed shingles at its own expense.	During the first 5 years after installation and after thermal sealing has taken place, Oakridge 40 Deep Shadow, Oakridge 30 Shadow, Prominence & Supreme 30 shingles are warranted against winds up to 80 mph, Oakridge, Supreme, Glaslock and Classic shingles are warranted against winds up to 60 mph. Shingles contain strips of asphalt sealant that require direct warm sunlight for several days to seal properly. Prior to sealing, shingles are more vulnerable to blow-offs and wind damage. Owens Corning is not responsible for any blow-offs or wind damage that may occur prior to thermal sealing having occurred; this is not a manufacturing defect.	During the first ten (10) years after installation, WeatherGuard High Wind 110 shingles and WeatherGuard hip and ridge, when installed together, are warranted against winds up to 110 mph. If WeatherGuard high wind shingles are installed with other Owens Corning hip and ridge, the WeatherGuard shingles and hip and ridge are warranted against winds up to 80 mph for five (5) years. If WeatherGuard High Winds shingles are installed with Owens Corning standard shingles for hip and ridge or a non-Owens Corning product for hip and ridge, the WeatherGuard High Wind Shingles are warranted against winds up to 80 mph for five (5) years. Shingles contain strips of asphalt sealant that require direct warm sunlight for several days to seal properly. Prior to sealing, shingles are more vulnerable to blow-offs and wind damage. Owens Corning is not responsible for any blow-offs or wind damage that may occur prior to thermal sealing having occurred; this is not a manufacturing defect.
10. Notification requirements	Claims must be filed within thirty days of discovery of the alleged defect in the following manner: (1) contact IKO Quality Services at 1-800-433-2811; (2) furnish the information as requested by the quality services representative; (3) complete, sign and return the home owner inquiry survey, including proof of purchase indicating the IKO product involved, the required number of pictures, and two full sample shingles; and (4) provide access to the IKO products in question for the purpose of investigation if requested.	Claims must be submitted within 30 days after discovery of the problem. Claims can be submitted by calling 1-800-ROOFING or writing to Owens Corning, Customer Response Center, One Owens Corning Parkway, Toledo, Ohio 43659, with proof of purchase.	Claims must be submitted within 30 days after discovery of the problem. Claims can be submitted by calling 1-800-ROOFING or writing to Owens Corning, Customer Response Center, One Owens Corning Parkway, Toledo, Ohio 43659, with proof of purchase.
11. Determination of warranty applicability	IKO will, within approximately sixty days of receipt of the completed home owner inquiry survey, evaluate the claim and respond. Any claimed defect for which notice is not received by IKO within the applicable warranty period is not covered by this warranty. Failure to provide requested information will cause the claim not to be considered.	Owens Corning reasonably determines material and labor costs owner can recover. Owens Corning has sole reasonable discretion to provide replacement shingles as an alternative to paying pro-rated, reasonable material cost to repair, replace or recover shingles.	Owens Corning reasonably determines material and labor costs owner can recover. Owens Corning has sole reasonable discretion to provide replacement shingles as an alternative to paying pro-rated, reasonable material cost to repair, replace or recover shingles.
12. Does the issuing entity manufacture and/or sell the shingles?	IKO manufactures and sells the shingles.	Owens Corning manufactures and sells the shingles.	Owens Corning manufactures and sells the shingles.
13. Specific conditions to make warranty ineffective or void (See warranty introduction for codes)	I; no warranty coverage if shingles are installed over insulated roof deck panels.	E	E
14. Inclusion of consequential damages	No	No	No
15. Assignability	Warranty may be transferred by the original consumer-purchaser only to a subsequent property owner within ten years following shingle installation under the following conditions: (1) notification of a request for transfer must be received in writing by IKO at 6600 S. Central Ave., Chicago, IL 60638; Attn: Quality Services; from the original consumer-purchaser, within thirty days after the date of the real estate transfer. Request must include a copy of the original invoice showing proof of purchase of the IKO product and a copy of the real estate transfer; and (2) a transfer fee of \$100 must accompany all requests for warranty transfer. Should a transfer occur during the initial five years for Chateau, Cambridge 30/40, and Renaissance XL, the duration of the warranty shall be the balance of the initial five-year period plus an additional five years rather than the normal 30 or 25 years. Except as stated above, if there is a transfer within ten years of installation, the remaining duration of the warranty shall be two years from the date of real estate transfer; the warranty will be prorated using the date of installation as the start date, and the warranty will exclude labor costs.	Warranty may be transferred one time, any time during the life of the warranty, if original consumer sells the building upon which the Owens Corning materials have been installed, upon submitting warranty transfer card and payment of \$50.00 transfer fee to Owens Corning within 60 days of real estate transfer.	Warranty may be transferred one time, any time during life of the warranty, if the original consumer sells the building upon which the Owens Corning materials have been installed, upon submitting warranty transfer card and payment of \$50.00 transfer fee to Owens Corning within 60 days of real estate transfer.
16. Cost to obtain	None	None	\$50.00 registration fee
17. Is the warranty backed by insurance coverage?	No	No	No
18. Is the warranty an additional or exclusive remedy for the owner?	This warranty replaces all other oral or written warranties, liabilities, or obligations of IKO; all implied warranties are excluded. IKO will not be liable for any oral statement or other written statement about the shingle, whether such statements are made by an agent or employee of IKO or by any other person. IKO does not authorize its representatives, distributors, contractors, or dealers to make any changes or modifications to this warranty.	Owner's remedy for defective shingles is fully described in warranty. Owner is not entitled to anymore than what is described in the warranty.	Owner's remedy for defective shingles is fully described in warranty and Owner is not entitled to more than what is described in the warranty.
19. Special features/conditions	For all products, the original consumer-purchaser may extend the initial three or five years of nonprorated warranty coverage, which includes labor to install replacement shingles, for up to two years. This optional purchase must take place during the first year of warranty coverage only. IKO will charge a one time fee of \$5.00/100 sq. ft. of roofing per year of additional coverage for this extension. Call the IKO quality services dept. at 800-433-2811 to purchase this additional coverage. No action for breach of this limited warranty shall be brought against IKO later than one year after any cause of action has accrued. IKO reserves the right to discontinue or modify any of its products, including the color blend of its shingles, without notice to the original consumer-purchaser and shall not be liable to the original consumer-purchaser as a result of this modification or discontinuance. IKO will have no liability in the event that replacement material may vary in color in comparison to the original product as a result of product changes or normal weathering.	Owens Corning may require consumer to submit, at consumer's expense, sample shingles for testing and/or photographs. Owens Corning not liable if there is a warranty claim & replacement shingles vary in color; Owens Corning reserves right to provide substitute shingles that are comparable only in quality and price.	Owens Corning may require consumer to submit, at consumer's expense, sample shingles for testing and for photographs. Owens Corning not liable if there is a warranty claim and replacement shingles vary in color; Owens Corning reserves right to provide substitute shingles that are comparable only in quality and price.
20. Executed by owner?	No	No; contractor or dealer should sign, date the warranty upon completion to help establish proof of purchase. There is an optional registration card.	No

Asphalt Shingle Warranties

1. Identity of issuing entity	Owens Corning	Pabco Roofing Products, Div of Pacific Coast Bldg Prods., Inc.	Tamko Roofing Products, Inc.
2. Title, original publication date, and identifying symbol, if any	"Roofing System Advantage Limited Warranty," December 2000; Pub. No. 16-RR-24767-A	"Shingle Warranty," January 1, 2001	"Tamko Roofing Products, WindFighter 120 MPH High Wind Shingles Limited Warranty," December 1, 2000; 997652
3. Products covered	Oakridge 40 Deep Shadow, Oakridge 30 Shadow, Oakridge 25, WeatherGuard 40 High Wind 110, WeatherGuard 30 AR High Wind 110, Prominence, Supreme 30, Supreme Glaslock, Classic (See Item 19 - Special Features)	Premier Advantage, Premier 40, Premier 30/3M, Premier 25, Premier-25/3M Algae Block, SG-25/3M Algae Block, GC-20	Windfighter Shingles
4. Scope of coverage	Owens Corning warrants that its roofing shingles are free from manufacturing defects that materially affect shingle performance. Shingles specifically labeled as Algae Resistant (AR) are warranted against discoloration caused by algal, fungal, lichen or cyanobacterial growth.	PABCO warrants that PABCO shingles are free from manufacturing defect that adversely affect performance; PABCO warrants that 3M Algae Block shingles will remain free from algae growth.	Tamko warrants that Tamko shingles are free from manufacturing defects which directly cause leaks. The shingles are also warranted against damage from wind up to 120 mph.
4a. Does the warranty provide coverage for defects in manufacture?	Yes	Yes	Yes
4b. Does the warranty provide coverage for defects in application?	No	No	No
4c. Does the warranty limit coverage to leakage and, if no, what defects or conditions other than leakage are covered?	No; warranty covers manufacturing defects that materially affect shingle performance. Algae resistant shingles warranted against discoloration.	No; warranty states that shingles are free from manufacturing defects that adversely affect performance. 3M Algae Block shingles are warranted to remain free from algae growth.	Warranty also covers wind damage
4d. Does the warranty provide coverage for flashings, metal work, or related work that may be affected and/or need to be repaired or removed?	No	No	No
5. Length of coverage	For Manufacturing Defects: 40 years: Oakridge 40 Deep Shadow, WeatherGuard 40 High Wind 110 30 years: Oakridge 30 Shadow, WeatherGuard 30 AR High Wind 110, Prominence, Supreme 25 years: Oakridge 25 Supreme, Glaslock 20 years: Classic For Algae Resistant Shingles: 10 years For Wind Damage: 10 years for WeatherGuard High Wind 110 shingles; 5 years for all others	For Manufacturing Defects: 45 years: Premier Advantage 40 years: Premier 40 30 years: Premier 30 25 years: Premier 25, SG-25 20 years: GC-20 10 years: Any PABCO shingle installed over a non-ventilated deck For Algae Resistance: 15 years: Premier 30 3M, Premier 25 3M and SG-25 3M Algae Block shingles will remain free from algae growth.	40 years for manufacturing defects 10 years for wind damage
5a. Is the warranty prorated?	Yes	Yes	Yes
5b. When does the prorating begin?	After 15 years for Oakridge 40 Deep Shadow & WeatherGuard 40 High Wind 110. After 10 years for Oakridge 30 Shadow, Oakridge 25, WeatherGuard 30 AR High Wind 110, Prominence, Supreme 30, Supreme and Glaslock. After 5 years for Classic	After 5 years for Premier Advantage, Premier 40, Premier 30, Premier 25 and SG-25 shingles. After three years for GC-20 shingles.	After 7 years
5c. What is the prorating formula?	For Oakridge 30 Shadow, WeatherGuard 30 AR High Wind 110, Prominence and Supreme 30: After 10 years, warranty is reduced by 1/360 for each month since installation (so that at the beginning of 11th years, warranty would be reduced by 120/360). For Oakridge 25, Supreme and Glaslock: After 10 years, warranty is reduced by 1/300 for each month since installation (so at beginning of the 11th year, warranty would be reduced by 120/300). For Classic: After five (5) years, warranty is reduced by 1/240 for each month since installation (so that at the beginning of the 6 year, warranty would be reduced by 60/240).	Premier Advantage: After five years, warranty is reduced by 1/540 for each month since original application (so that at the beginning of the sixth year, warranty would be reduced by 60/540). Premier 40: After five years, warranty is reduced by 1/480 for each month since original application (so that at the beginning of the sixth year, warranty would be reduced by 60/480). Premier 30: After five years, warranty is reduced by 1/360 for each month since original application (so that at the beginning of the sixth year, warranty would be reduced by 60/360). Premier 25, SG-25: After five years, warranty is reduced by 1/300 for each month since original application (so that at the beginning of the sixth year, warranty would be reduced by 60/300). GC-20: After three years, warranty is reduced by 1/240 for each month since original application (so that at the beginning of the fourth year, warranty would be reduced by 36/240). Shingles installed over any non-ventilated deck: Warranty is reduced by 1/120 for each month effective upon installation.	After 7 years, warranty is reduced by 1/480 for each month of service from date of installation (so at beginning of 8th year, warranty would be reduced by 84/480).
6. Nature of remedy	For first 15 years for Oakridge 40 Deep Shadow and WeatherGuard 40 High Wind 110, for first 10 years for Oakridge 30 Shadow, Oakridge 25, WeatherGuard 30 AR High Wind 110, Prominence, Supreme 30, Supreme and Glaslock and for the first 5 years for Classic, Owens Corning will pay 100% of material and labor costs, as reasonably determined by Owens Corning, to repair, replace or recover defective roofing components, exclusive of metal work, flashing or other related work. Owens Corning will not pay for the cost to remove or dispose of roof system components. After the initial nonprorated period, the amount Owens Corning will pay for materials and labor will be prorated.	During non-prorated coverage period, PABCO will pay the reasonable material and installation costs to repair, replace or recover, as PABCO determines, defective shingles. After period of non-prorated coverage, the amount of payment for the reasonable cost of the shingle to repair, replace or recover the defective shingles will be reduced in accordance with the prorating schedule or, in PABCO's sole reasonable discretion, PABCO will provide replacement shingles.	During the first 7 years, Tamko will provide the Owner with a Certificate for Replacement Shingles redeemable at participating distributors or at Tamko's option, \$70/square, & will pay the Owner the reasonable cost of installing replacement shingles. After 7 years, Tamko's payment will be prorated and Tamko is not responsible for the cost of labor for installing replacement shingles. Tamko will have up to 90 days after receipt of notification to process Owner's claim.
6a. Does the warranty provide for furnishing of replacement shingles?	Yes	Yes	Yes
6b. Does the warranty provide for labor to install replacement shingles?	Yes	Yes, during the initial non-prorated warranty coverage period; no during the prorated period.	Yes during first seven years; no for balance of warranty
6c. Does the warranty provide for labor to remove defective shingles?	No	Yes; during the initial non-prorated warranty coverage period; warranty covers reasonable installation costs to repair; replace or recover defective shingles.	No
6d. Does the warranty cover disposal of defective shingles?	No	No	No

6e.	Does the warranty apply to any materials other than shingles?	Warranty covers all Owens Corning Roofing System components, same as VentSure ventilation.	No	No
7.	Is there a monetary limitation?	For manufacturing defects, during the first five years, Owens Corning's maximum costs shall be the labor and material costs, as reasonably determined by Owens Corning to repair, replace or recover defective shingles, exclusive of metal work, flashing or other related work and the cost to remove or dispose of defective shingles. For algae resistance, during the first year, Owens Corning's maximum cost shall not exceed the initial cost of the shingles and their initial installation. For the balance of the warranty, Owens Corning's maximum costs shall be prorated and the prorating formula for algae resistance shall exclude the cost of installation labor.	During the initial non-prorated warranty coverage period, PABCO's maximum liability is the reasonable material & installation cost to repair, replace or recover defective shingles. After the non-prorated coverage period, PABCO's liability is limited to pro-rated portion of the reasonable cost of the shingle to repair, replace or recover defective shingles.	During the first seven years, Tamko's maximum liability shall be providing replacement shingles or \$70/square and the reasonable cost of installing replacement shingles. After 7 years, Tamko's maximum liability is limited to prorated replacement shingles or a prorated portion of Tamko's maximum \$70/square liability, excluding labor costs.
8.	Specific exclusion from coverage (See Warranty Introduction for codes)	1, 2, 4, 6, 7, 8, 9, 14, 17, 19, 21, 23, 24	1, 2, 4, 6, 7, 8, 9, 13, 14, 19, 24	1, 2, 4, 7, 8, 9, 14, 17, 18 (including aliphatic or aromatic solvents, chlorinated hydrocarbons, turpentine, oils, or organic or inorganic polar materials), 19, 23, 24. Warranty also excludes removal or abatement of any asbestos present in the roof to which the shingles are applied, or for any costs related to the removal of abatement.
9.	Wind coverage/exclusion	During the first ten (10) years, WeatherGuard High Wind 110 shingles, when installed with WeatherGuard High Wind 110 hip and ridge, are warranted against winds up to 110 mph. During the first five (5) years, Oakridge 40 Deep Shadow, Oakridge 30 Shadow, Prominence and Supreme 30 are warranted against winds up to 80 mph, and Oakridge 25, Supreme, Glaslock and Classic are warranted against winds up to 60 mph. Shingles contain strips of asphalt sealant that require direct warm sunlight for several days to seal properly. Prior to sealing, shingles are more vulnerable to blow-offs and wind damage. Owens Corning is not responsible for any blow-offs or wind damage that may occur prior to thermal sealing having occurred; this is not a manufacturing defect.	Premier Advantage shingles are warranted for 5 years against wind damage due to winds up to 100 mph following proper application and sealing of the shingles. Premier 40 shingles are warranted for 5 years against wind damage due to winds up to 80 mph following proper application and sealing of the shingles. Premier 30 shingles are warranted for 5 years against wind damage due to winds up to 60 mph following proper application and sealing of the shingles. Premier 25 and SG-25 shingles are warranted for 5 years against wind damage due to winds up to 80 mph following proper application and sealing of the shingles. GC-20 and PABCO Shingles installed over a non-ventilated deck are warranted for 3 years against wind damage due to winds up to 50 mph following proper application and sealing of the shingles. PABCO shingles contain self-sealing asphalt strips that must be subjected to direct sunlight for several days before thermal sealing will occur. When shingles are installed during cool weather conditions, they may not seal until the conditions warm or the seasons change. Shingles which do not receive direct sunlight or which are not exposed to adequate surface temperatures may never seal. Failure to seal under such circumstances is not a manufacturing defect.	During the first 10 years, when installed according to the instructions printed on wrapper & after the shingles have had the opportunity to seal down, Tamko warrants shingles against damage from wind up to 120 mph. If Tamko shingles are damaged or blown off as a result of a manufacturing defect, Tamko will process claim as a manufacturing defect or, at Tamko's option, pay the reasonable cost of replacing shingles that have blown off. Shingles will be conclusively deemed to have been exposed to winds in excess of 120 mph if the National Weather Service or other reputable weather agency records wind in excess of 120 mph in the county or parish where shingles are installed or in any adjoining county or parish.
10.	Notification requirements	Claims must be submitted within 30 days after discovery of the problem. Claims can be submitted by calling 1-800-ROOFING or writing to Owens Corning, Customer Response Center, One Owens Corning Parkway, Toledo, Ohio 43659, with proof of purchase.	PABCO must be notified within 30 days of discovery of a claimed manufacturing defect by phone (800-426-9762 or 233-272-0374), e-mail (www.pabcoroofing.com) or letter so that a claim packet can be forwarded. Owner must complete and submit the claim form to PABCO, with two full shingles that clearly demonstrate the claimed defect and photos, at the owner's expense.	Owner must notify Tamko by certified mail at P.O. Box 1404, Joplin, MO 64802 of any leaks alleged to result from manufacturing defects within 30 days following discovery of leak. Claims require documentary proof of purchase.
11.	Determination of warranty applicability	Owens Corning reasonably determines material & labor costs owner can recover. Owens Corning has sole reasonable discretion to provide replacement shingles as an alternative to paying pro-rated, reasonable material cost to repair, replace or recover shingles.	PABCO laboratory will analyze claim to determine if there is a manufacturing defect that adversely affects shingle performance.	Extent of repair or replacement is at the sole discretion of Tamko.
12.	Does the issuing entity manufacture and/or sell the shingles?	Owens Corning manufactures and sells the shingles.	PABCO manufactures and sells the shingles.	Tamko manufactures and sells the shingles
13.	Specific conditions to make warranty ineffective or void (See warranty introduction for codes)	E	PABCO shingles installed on "Geodesic Dome" construction is not warranted nor approved under any circumstances.	E, F, (See Special Features/Conditions)
14.	Inclusion of consequential damages	No	No	No
15.	Assignability	Warranty may be transferred one time, any time during the life of the warranty, if the original consumer sells the building upon which the Owens Corning materials have been installed, upon submitting warranty transfer card and payment of \$50.00 transfer fee to Owens Corning within 60 days of real estate transfer.	Warranty is transferable; warranty automatically transfers to additional purchasers without notification to PABCO.	Owner may transfer warranty one time during the first two years to a purchaser of the building at the time of the sale of the building. Owner must provide Tamko with written notice within 30 days of transfer. Except for this one time transfer, any assignment, sale or transfer of the warranty or the building on which the shingles are applied shall immediately terminate all liability of Tamko; no other transfers are permitted.
16.	Cost to obtain	\$50.00 registration fee	None	None
17.	Is the warranty backed by insurance coverage?	No	No	No
18.	Is the warranty an additional or exclusive remedy for the owner?	Owner's remedy for defective shingles is fully described in the warranty. Owner is not entitled to anymore than what is described in the warranty.	Warranty is expressly in lieu of any other guarantees and/or warranties, oral or written, expressed or implied such as those made by dealers, contractors, distributors or applicators, such as those made by dealers, contractors, distributors or applicators. Warranty is in lieu of all other theories of liability, causes of action, and claims whatsoever, against PABCO.	Warranty is expressly in lieu of any other obligations, guarantees and warranties, expressed or implied, and any other obligations or liability on the part of Tamko. No representative, employee or other agent of Tamko, or any other person other than Tamko's president, has authority to assume for Tamko any additional liability or responsibility.
19.	Special features/conditions	In order to obtain the warranty, the original consumer purchaser (i.e. homeowner) must purchase a complete Roofing System from Owens Corning and install the Owens Corning materials on a single-family dwelling with a roof that is no larger than 100 roofing squares. The single-family dwelling must be owned and maintained by the consumer and does not include dwellings such as condominiums, duplexes, zero lot-line residences or patio homes where the roofing system is owned or maintained by an association or third party or shared with another owner. The Roofing System must be installed over a clean roofing deck and not over existing shingles or other materials and the following materials must have been purchased and installed: b. Owens Corning asphalt shingles. c. Owens Corning VentSure ventilation products, in conjunction with functional eave and/or soffit intake vents; d. Owens Corning WeatherLock underlayment if required in state where home is located; and e. Any breather-type No. 15 or No. 30 asphalt-saturated felt intended for use as shingle underlayment. Owens Corning may require consumer to submit, at consumer's expense, sample shingles for testing and for photographs. Owens Corning not liable if there is a warranty claim and replacement shingles vary in color; Owens Corning reserves right to provide substitute shingles that are comparable only in quality and price.	PABCO reserves the right to discontinue or modify any of its products, including the color of shingles, without notice to the original homeowner/consumer and shall not be liable to the original homeowner/consumer as a result of discontinuance or modification. Warranty applies to shingles applied from January 1, 2001 to December 31, 2005	If reasonable access is denied or made subject to unreasonable condition the owner, or if the owner fails or refuses to cooperate in Tamko's investigation of complaint (including, but not limited to, failing to provide sample shingles or photographs or to complete and return a warranty questionnaire), Tamko's obligation shall immediately terminate. Tender of payment to owner of the maximum liability, shall immediately terminate all liability of Tamko and all warranties contained herein. No action for breach of this limited warranty or any other action relating or arising out of the shingles, their purchase or this transaction shall be brought later than one year after any cause of action has accrued. All action for breach expire one year after the date of purchase, unless a longer period is mandated by state law.
20.	Executed by owner?	No	No	Warranty registration may be submitted, but is not required for warranty coverage.

Asphalt Shingle Warranties

1. Identity of issuing entity	Tamko Roofing Products, Inc.	Tamko Roofing Products, Inc.	Tamko Roofing Products, Inc.
2. Title, original publication date, and identifying symbol, if any	"Tamko Roofing Products Reliance 25 Organic Shingles Limited Warranty; November 1, 2000; JP21385	Tamko Roofing Products, Inc. "Fiberglass Shingles Limited Warranty," April 15, 1999; 997449 JP 22371	"Tamko Roofing Products, Tam-Loc-Glass Shingle Limited Warranty;" December 4, 2000; JP 44341
3. Products covered	Reliance 25 Organic Shingles	Heritage 40, Heritage 30, Heritage 25, Elite Glass-Seal, Glass-Seal, Heritage 40 AR, Heritage M40, Heritage 30 AR, Heritage M30, Heritage 25 AR, Heritage M 25, Elite Glass-Seal AR, Glass-Seal AR	Tam-Loc-Glass interlocking fiberglass shingles
4. Scope of coverage	Tamko warrants that the Tamko shingles are free from manufacturing defects which directly cause leaks.	Tamko warrants that the Tamko shingles are free from manufacturing defects which result in leaks.	Tamko warrants that the Tamko shingles are free from manufacturing defects which directly cause leaks.
4a. Does the warranty provide coverage for defects in manufacture?	Yes	Yes	Yes
4b. Does the warranty provide coverage for defects in application?	No	No	No
4c. Does the warranty limit coverage to leakage and, if no, what defects or conditions other than leakage are covered?	Warranty also covers damage from wind up to 60 mph.	No - Algae only on AR Shingles	Yes
4d. Does the warranty provide coverage for flashings, metal work, or related work that may be affected and/or need to be repaired or removed?	No	No	No
5. Length of coverage	Region A - 25 years Region B - 20 years Region C - no warranty coverage	40 years: Heritage 40, Heritage M40, Heritage 40 AR 30 years: Heritage 30, Heritage M30, Heritage 30 AR 25 years: Heritage 25, Elite Glass-Seal, Heritage M25, Heritage 25 AR 20 years: Glass-Seal, Glass-Seal AR For Algae Resistance (AR) Shingles : 10 years	25 Years
5a. Is the warranty prorated?	Yes	Yes	Yes
5b. When does the prorating begin?	After three years	After one year	After 1 year
5c. What is the prorating formula?	For Manufacturing Defects: Region A - After 3 years, warranty is reduced by 1/300 for each month of service from date of installation (so that at the beginning of the fourth year, warranty would be reduced by 36/300). Region B - After three years, warranty is reduced by 1/240 for each month of service from date of installation (so that at the beginning of the third year, warranty would be reduced by 36/240).	Heritage 40, 40AR, M40: After 7 years, warranty is reduced by 1/480 for each month of service from date of installation. Heritage 30, 30AR, M30: After 7 years, warranty is reduced by 1/360 for each month of service from date of installation. Heritage 25, 25 AR, M 25: After 7 years, warranty is reduced by 1/300 for each month of service from date of installation. Glass-Seal, Glass-Seal AR: After 3 years, warranty is reduced by 1/240 for each month of service from date of installation.	After one year, warranty is reduced by 1/300 for each month of service from date of installation (so that at the beginning of the 2nd year, warranty would be reduced by 12/300).
6. Nature of remedy	During the first three years, Tamko will provide the Owner with a Certificate for Replacement Shingles, redeemable at participating distributors for a stated quantity of shingles of the same type or color as the shingles to be replaced, and pay the Owner for the reasonable cost of installing replacement shingles or, at Tamko's option, \$30.00 per square. After the first 3 years, Tamko's payment will be prorated and Tamko is not responsible for the cost of labor for installing replacement shingles. Tamko will have up to 90 days after receipt of notification to process owners claim.	Tamko will make repairs or cause repairs to be made, or will replace defective shingles, exclusive of flashings and metal work, as required to prevent leaks resulting directly and solely from manufacturing defects. Tamko will have 90 days after receipt of notification to make or cause to be made repairs/replacement unless otherwise prevented by acts of God.	During 1st year, Tamko will provide the Owner with Certificate for Replacement Shingles redeemable at participating distributors or, solely at Tamko option, Tamko will pay the Owner \$25 per square, & will pay owner the reasonable cost of installing replacement shingles. After the 1st year, Tamko's payment will be prorated. Tamko is not responsible for cost of labor installing replacement shingles. Tamko will have up to 90 days after receipt of notification to process Owner's claim.
6a. Does the warranty provide for furnishing of replacement shingles?	Yes	Yes	Yes
6b. Does the warranty provide for labor to install replacement shingles?	Yes during first three years; no for the balance of the warranty.	Yes	Yes during the first year; no for balance of warranty
6c. Does the warranty provide for labor to remove defective shingles?	No	No	No
6d. Does the warranty cover disposal of defective shingles?	No	No	No
6e. Does the warranty apply to any materials other than shingles?	No	No	No
7. Is there a monetary limitation?	During the first three years, Tamko's maximum liability for manufacturing defects shall be limited to the reasonable replacement cost of the Tamko shingles and their application. After 3 years, Tamko's maximum liability is limited to prorated replacement shingles or a prorated portion of Tamko's maximum \$70/square liability, excluding labor costs.	During the full start period, Tamko's maximum liability shall be limited to the reasonable replacement cost of the Tamko shingles and their application. After the full start period, Tamko's obligation is limited to provide the owner with a certificate of replacement shingles or, at Tamko's option, the dollar limit per square identified in the shingle warranty. The dollar limit per square and the quantity of replacement shingles will be prorated over the life of this limited warranty. Tamko is not responsible for the cost of labor installing replacement shingles after the full start period. Proration shall be determined by dividing the number of months remaining in the term by the total number of months of the term. Tamko's maximum liability for repair or replacement due to algae or fungus growth shall be limited to the original cost of the shingles and the cost of their original installation.	During the first year, Tamko's maximum liability shall be providing replacement shingles or \$25/square and the reasonable cost of installing replacement shingles. After 1st year, Tamko's maximum liability is limited to prorated replacement shingles or a prorated portion of Tamko's maximum \$25/square liability, excluding labor costs.
8. Specific exclusion from coverage (See Warranty Introduction for codes)	1, 2, 4, 7, 8, 9, 14, 17, 18 (including aliphatic or aromatic solvents, chlorinated hydrocarbons, turpentine, oils, or organic or inorganic polar materials), 19, 23, 24. Warranty also excludes removal or abatement of any asbestos present in the roof to which the shingles are applied, or for any costs related to the removal of abatement.	1, 2, 4, 7, 8, 9, 14 (green algae, moss and staining from overhanging trees), 17, 18 (including aliphatic or aromatic solvents, chlorinated hydrocarbons, turpentine, oils, or organic or inorganic polar materials), 19, 23, 24. Warranty also excludes removal or abatement of any asbestos present in the roof to which the shingles are applied, or for any costs related to the removal or abatement.	1, 2, 4, 7, 8, 9, 14, 17, 18 (including aliphatic or aromatic solvents, chlorinated hydrocarbons, turpentine, oils, or organic or inorganic polar materials), 19, 23, 24. Warranty also excludes removal or abatement of any asbestos present in the roof to which the shingles are applied, or for any costs related to the removal of abatement.

9. Wind coverage/exclusion	Tamko warrants shingles against damage from wind up to 60 mph for five years if shingles were installed according to the instructions printed on the wrapper & were damaged or blown off as result of a manufacturing defect. Tamko will process claim as a manufacturing defect or, at Tamko's option, pay the reasonable cost of replacing shingles that have blown off. Shingles will be conclusively deemed to have been exposed to winds in excess of 60 mph if National Weather Service or other reputable weather agency records wind in excess of 60 mph in the county or parish where the shingles are installed or in any adjoining county or parish.	During the first five years after initial application, Tamko shingles shall resist damage by winds up to 60" mph after the shingles have had the opportunity to seal down. In situations where Tamko determines that sealing should have occurred but did not, as a result of a manufacturing defect, Tamko will repair or replace any such single. Tamko may manually seal the shingles or replace the shingles with shingles of a similar color. Shingles that are installed in the fall or winter may not seal until weather conditions are adequate to allow the seal down strip to be activated. 50 mph for Heritage 30, 30AR, M30, 40, 40AR, M40 shingles which have been installed in strict conformance with the high wind fastening pattern installation instruction of the wrapper.	Tamko warrants shingles against damage from wind up to 60 mph for five years if shingles were installed according to the instructions printed on the wrapper & were damaged or blown off as result of a manufacturing defect. Tamko will process claim as a manufacturing defect or, at Tamko's option, pay the reasonable cost of replacing shingles that have blown off. Shingles will be conclusively deemed to have been exposed to winds in excess of 60 mph if National Weather Service or other reputable weather agency records wind in excess of 60 mph in the county or parish where shingles are installed or in any adjoining county or parish.
10 Notification of requirements	Owner must notify Tamko by certified mail PO Box 1404,Joplin, MO 64802 of ny claims under warranty within 30 days following discovery of problem. Notice must include documentary proof of purchase.	Owner must notify Tamko by certified mail, PO Box 1404,Joplin MO 64802 of claims under warranty within 30 days following discovery of problem. Notice must include documentary proof of purchase.	Ownermust notify Tamko by certified mail, P O Box 1404, Joplin MO 64809 of claims under warranty within 30 days following discover of problem. Notice must include documentary proof of purchase.
11. Determination of warranty applicability	Extent of repair or replacement is at the sole discretion of Tamko	The extent of repair or replacement is at the sole discretion of Tamko.	Extent of repair or replacement is at the sole discretion of Tamko.
12. Does the issuing entity manufacture and/or sell the shingles?	Tamko manufactures and sells the shingles.	Tamko manufactures and sells the shingles.	Tamko manufactures and sells the shingles.
13. Specific conditions to make warranty ineffective or void (See warranty introduction for codes)	E, F, (See Special Features/Conditions)	C, E, F (Hawaii and Alaska are also excluded.)	E, F, (See Special Features/Conditions)
14. Inclusion of consequential damages	No	No	No
15. Assignability	Owner may transfer warranty time during the first 2ears to a purchaser of the building at the time of the sale of the building. Owner must provide Tamko with written notice within 30 days of transfer. Except for this 1 time transfer, any assignment, sale or transfer of the warrant or the building on which the shingles are applied shall immediately terminate all liability of Tamko; no other transfers are permitted.	The owner may transfer this limited warranty one time during the first 2 years of term to a purchaser. No other transfers are permitted.	Not assignable or transferable under any circumstances.
16. Cost to obtain	None	None	None
17. Is the warranty backed by insurance coverage?	No	No	No
18. Is the warranty an additional or exclusive remedy for the owner?	Warranty is expressly in lieu of any other obligations, guarantees and warranties, expressed or implied, &any other obligations or liability on the part of Tamko. No representative, employee or other agent of Tamko, or any other person other than Tamko's president, has authority to assume for Tamko any additional liability or responsibility.	Warranty is expressly in lieu of any other obligations, guarantees and warranties, expressed or implied, and any other obligations or liability on the part of Tamko.	Warranty is expressly in lieu of any other obligations, guarantees and warranties, expressed or implied, & any other obligations or liability on the part of Tamko. No representative, employee or other agent of Tamko, has the authority to assume for Tamko any additional liability or additional liability or responsibility.
19. Special features/conditions	This warranty only applies to shingles applied in certain regions of the country. Because of environmental conditions in Region C, Tamko does not market or recommend Reliance shingles in Region C which consists of Alabama, California, Florida, Georgia, Louisiana, Mississippi (certain counties), No Carolina, So Carolina, Texas (certain counties), Virginia and West Virginia. In these states, there is no warranty coverage for Reliance shingles and such shingles are sold "as is", without any warranty, expressed or implied. Region A consists of all states other than parts of Arizona, Texas, New Mexico, which are in Region B, and those states listed above, which compromise Region C. If reasonable access is denied or made subject to unreasonable conditions by the owner, or if the owner fails or refuses to cooperate in Tamko's investigation of complaint (including, but not limited to, failing to provide sample shingles or photographs or to complete and return a warranty questionnaire), Tamko's obligation shall immediately terminate. Tender of payment to owner of the maximum liability, shall immediately terminate all liability of Tamko and all warranties contained herein. No action for breach of this limited warranty or any other action relating to or arising out of the shingles, their purchase or this transaction shall be brought later than one year after any cause of action has accrued.	No action for breach of this limited warranty shall be brought later than one year after any cause of action has accrued. Claims under warranty will require proof of purchase. No representative, employee or agent of Tamko, or any other person, other than Tamko's president, has authority to assume for Tamko any additional liability or responsibility.	If reasonable access is denied or made subject to unreasonable conditions to the owner, or if the owner fails or refuses to cooperate in Tamko's investigation of complaint (including, but not limited to, failing to provide sample shingles or photographs or to complete and return a warranty questionnaire), Tamko's obligation shall immediately terminate. Tender of payment to the owner of the maximum liability, shall immediately terminate liability of Tamko and all warranties contained herein. No action for breach of this limited warranty or any other action relating to or arising out of the shingles, their purchase or this transaction shall be brought later than 1 yr after any cause of action has accrued. All actions for breach expire one year after the date of purchase, unless a longer period is mandated by state law.
20. Executed by owner?	No	No	No

Asphalt Shingle Warranties

1. Identity of issuing entity	Tamko Roofing Products, Inc.
2. Title, original publication date, and identifying symbol, if any	"Storm Fighter AR Category 3 Hurricane/130 MPH Wind Shingle Limited Warranty," January 1, 2000 JP30042/399
3. Products covered	Storm Fighter AR shingle
4. Scope of coverage	Tamko warrants that the Tamko shingles are free from manufacturing defects which directly result in leaks and will be resistant to certain algae or fungus growth, including blue-green algae of the Genus Gleocapsa to the extent such growth damages appearance.
4a. Does the warranty provide coverage for defects in manufacture?	Yes
4b. Does the warranty provide coverage for defects in application?	No
4c. Does the warranty limit coverage to leakage and, if no, what defects or conditions other than leakage are covered?	Yes
4d. Does the warranty provide coverage for flashings, metal work, or related work that may be affected and/or need to be repaired or removed?	No
5. Length of coverage	Manufacturing defects: 30 years Algae Resistance: 10 years
5a. Is the warranty prorated?	Yes
5b. When does the prorating begin?	After one year
5c. What is the prorating formula?	After one year, warranty is reduced 1/360 for each month of service from date of installation.
6. Nature of remedy	For manufacturing defects & not wind damage, Tamko will refund to the owner subject to proration, original installed cost of the shingles, except that Tamko in its sole discretion, may make repairs or cause repairs to be made or may replace defective shingles, exclusive of flashings and metal work as required to prevent leaks resulting solely from manufacturing defects. Tamko will have 90 days after receipt of notification to make or cause to be made necessary refunds, repairs or replacements unless otherwise prevented by acts of God. For algae resistance, Tamko will refund to owner, subject to proration the original installed cost of the shingles, except that Tamko, in its sole discretion, may either make repairs or cause repairs to be made to shingles which may include cleaning or replacing shingles, exclusive of flashings and metal work, as required to correct the damage to the appearance of the shingles.
6a. Does the warranty provide for furnishing of replacement shingles?	Yes
6b. Does the warranty provide for labor to install replacement shingles?	No
6c. Does the warranty provide for labor to remove defective shingles?	No
6d. Does the warranty cover disposal of defective shingles?	No
6e. Does the warranty apply to any materials other than shingles?	No
7. Is there a monetary limitation?	During 1st year, Tamko's maximum liability shall be limited to original installed cost of Tamko shingles. The original installed cost shall be the actual original cost of purchase & application of the Stormfighter AR shingles which shall be evidenced by owner's written proof of purchase and installation. After 1 year, Tamko's maximum liability shall be prorated and shall be equal to product of: 1) the quotient derived by dividing the original installed cost by total months of warranty period, multiplied by 2) difference between the total months of the warranty period minus the total months of service (the number of months from the date of original application to date of warranty claim). The remaining cost shall be the responsibility of owner. For shingles damaged by algae or fungus growth to which shingles are warranted to be resistant, Tamko will refund to the owner the original installed cost of the shingles, except that Tamko, in its sole discretion, may either make repairs or cause repairs to be made or replace damaged shingles.

8. Specific exclusion from coverage (See Warranty Introduction for codes)	1, 2, 4, 7, 8, 9, 14 (green algae, moss & staining from overhanging trees), 17, 18 (including aliphatic or aromatic solvents, chlorinated hydrocarbons, turpentine, oils, or organic or inorganic polar materials), 19, 23, 24. Warranty also excludes removal or abatement of asbestos or other hazardous material present in the roof to which the shingles are applied, or for any costs related to removal or abatement, replacement of any shingles, if shingle fasteners pull out of the roof deck or if the roof deck detaches in whole or in part from the building to which Tamko shingles are applied, any wind damage when the roof has been subjected to sustained winds in excess of 130 mph or wind gusts in excess of 140 mph, whether or not such winds are associated with a hurricane of any category or any damages to shingles or roll goods used on hips and ridges of the roof.
9. Wind coverage/exclusion	<p>During the first 10 years after having the opportunity to seal down, the Tamko shingles shall resist damage by winds up to 130 mph. Warranty will cease upon shingles being exposed to a Category 4 or higher hurricane, or three Category 1, 2 or 3 hurricanes in the vicinity.</p> <p>For shingles that are damaged, Tamko will refund to owner, subject to proration after 1 year, the original installed cost of the damaged shingles. Warranty does not cover labor costs for removal of damaged shingles, roof deck repairs or application of replacement shingles, except that Tamko, in its sole discretion, in lieu of refunding the original installed cost of damaged shingles, may make repairs or cause repairs to be made or replace the damaged shingles.</p> <p>Separation of shingles at the seal down strip shall not be a breach of warranty so long as shingles remain attached to roof deck. Shingles that are installed in fall or winter may not seal until weather conditions are adequate to allow seal down strip to be activated. In situations where Tamko determines that sealing should have occurred but did not as a result of a manufacturing defect, Tamko, in its sole discretion, may manually seal any such shingles.</p>
10. Notification requirements	Owner must notify Tamko by certified mail at P.O. Box 1404, Joplin, MO 64802 of leaks alleged to result from manufacturing defects/wind damage or other claims under warranty within 30 days following discovery of leak/ wind damage. Claim require documentary proof of purchase & installation of the shingles which must include the dates of purchase and installation. Absent reasonable documentary proof, Tamko shall have no liability.
11. Determination of warranty applicability	The extent of repair or replacement is at the sole discretion of Tamko.
12. Does the issuing entity manufacture and/or sell the shingles?	Tamko manufactures and sells the shingles.
13. Specific conditions to make warranty ineffective or void (See warranty introduction for codes)	F
14. Inclusion of consequential damages	No
15. Assignability	Warranty shall not be assigned, sold or transferred in any manner whatsoever. Any assignment, sale or transfer of the warranty or the building to which the Tamko shingles are applied shall immediately terminate all liability and warranties.
16. Cost to obtain	None
17. Is the warranty backed by insurance coverage?	No
18. Is the warranty an additional or exclusive remedy for the owner?	Warranty is expressly in lieu of any other obligations, guarantees and warranties, expressed or implied, and any other obligations or liability on the part of Tamko.
19. Special features/conditions	If reasonable access is denied or made subject to unreasonable conditions, the owner, or if the owner fails or refuses to cooperate in Tamko's investigation of complaint (including, but not limited to, failing to provide sample shingles or photographs or to complete and return a warranty questionnaire), Tamko's obligation shall immediately terminate. No action or breach of this limited warranty or any other action relating to or arising out of shingles, their purchase or this transaction shall be brought later than 1 yr after cause of action has accrued. No representative, employee or other agent of Tamko, or any other person, other than Tamko's president has authority to assume for Tamko additional liability/responsibility.
20. Executed by owner?	Owner may submit warranty registration card to Tamko.

Appendix

ASPHALT SHINGLES

Atlas Roofing Corporation

For roofing shingle products Atlas regional sales offices are: Ardmore, OK 800/261-2852 FAX 405/223-6894; Daingerfield, TX 800/270-2852 FAX 903/645-2291; Franklin, OH 800/260-2852 FAX 513/746-6040; Hampton, GA 800/251-2852 FAX 770/946-5249; Meridian, MS 800/933-2721 FAX 601/483-7344; Quakertown, PA 800/254-2852 FAX 215/536-3002.

Atlas corporate addresses are: Corporate Sales and Marketing, 1775 The Exchange, Suite 160, Atlanta, GA, 30339; Corporate Office, 802 Hwy 19 North, Suite 190, Meridian, MS, 39307; or, access their web site at www.atlasroofing.com.

CertainTeed Corporation

CertainTeed uses several patented technologies to produce some of its unique shingle products. Grand Manor Shingle and Carriage House Shingle products are made using "Super Shingle" construction, which consists of two full-size one piece base shingles laminated together and in the case of Grand Manor Shingle, additional random tabs are applied. Independence and Hallmark also use random tabs but do so on a single base shingle. Presidential TL and Landmark TL utilize three layers of mat laminated together for an extra thick profile. Classic and New Horizon shingles are constructed using an overlay technology that creates a dimensional look without lamination. Hatteras is constructed with dual sealant strips to provide 110 mph wind protection.

CertainTeed's shingle products are available in the following geographic regions:

Northeast	NE	781-551-0656
Atlantic South	AS	919-693-1141
Lake Central	LC	800-432-9256
North Central	NC	800-328-7825
South Central	SC	972-580-5608
Northwest	NW	888-217-8170
Southwest	SW	800-995-7735

Technical Information: Phone: 800-322-3060; Fax 610/341-6212. Architectural Support 800-233-8990; Fax: 610-341-7940

Corporate Office:
CertainTeed Corp.
Roofing Products Group
750 E. Swedesford Rd.
Valley Forge, PA 19482

CertainTeed shingles are available on a national/regional basis as follows with algae-resistant versions determined by color and region. A variety of accessory products are also available for hip and ridge applications:

Grand Manor Shingle	National
Carriage House Shingle	National
Presidential TL	National
Landmark TL	National
Presidential Shake	National
Independence Shingle	National
Hatteras	National (except CA)
Landmark 40	National
Landmark 30	National
Landmark 25	National
Hallmark Shingle	LC, NC, SC
Woodscape 40	NE
Woodscape 30	NE
Woodscape 25	NE
Classic Horizon	AS, NE
New Horizon	LC, NC
Hearthstead	NC
Custom Sealdon 30	LC, NC
Sealdon 25	LC, NC
Custom Lok 25	LC, NC
Architect 80	Hawaii only
XT 30	NE, AS, LC, NC, SC, NW
XT-25	NE, AS, LC, NC, SC
CT-20	AS, SC, NW
Firehalt	AS, SC, NW, SW
Firescreen	SC
Seal King 25	NE
Jet 25	NE

Refer to individual application instructions provided with the shingles for special instructions regarding using self-adhering WinterGuard Waterproofing Shingle Underlayment for protection against wind-driven rain and ice-dam protection. Our Shingle Application Manual and bundles wraps contain the most up to date information on deck and fastening installations.

Other color availability:

Custom Sealdon 30: autumn brown, black, gray frost, mint frost, nickel gray, oakwood, pewter, sandalwood, star white, timber blend, weathered wood.

Sealdon 25: black, cinnamon frost, evergreen blend, gray frost, nickel gray, oakwood, sandalwood, star white, timber blend, weathered wood.

Seal King 25: black blende, brick red, charcoal brown, chestnut brown, frost beig, meadow green, moire black, nantucket gray, sea green, shadow green, slate blende, snow white, weatherwood, wood blende.

Woodscape 40: birchwood, cypresswood, driftwood, ebonywood, forest green, oakwood, pewterwood, slate blende, sunset brick, weatherwood.

Woodscape 30: birchwood, cypresswood, driftwood, ebonywood, forest green, oakwood, pewterwood, slate blende, sunset brick, weatherwood.

Woodscape 25: birchwood, cypresswood, driftwood, ebonywood, forest green, oakwood, pewterwood, slate blende, sunset brick, weatherwood.

Elk Corporation

Following are Elk Corporation's regional sales offices and their phone numbers:

Sales information: Western (800)791-8545; Southwestern (800) 288-6789; Midwest (800) 266-6111; Southeastern / Atlantic (800) 945-5551; Northern (800) 944-4344; Northwest (877) 840-7635.

Technical information: Texas (800) 289-9876; California (800) 355-4968; Alabama (800) 945-5545; Pennsylvania (800) 944-4344.

GAF Materials Corporation

GAF regional sales offices are: Dallas, Texas, 214/637-1060; Fontana, Calif., 909/360-4200; - Naperville, Ill., 630/778-0390; North Brunswick, N.J., 908/297-0091; and Tampa, Fla., 813/248-6202. Regional technical services office is: Wayne, N.J., 800/ROOF-411.

Timberline shingles comply with ASTM D3462-93a in Dade County, Fla. Timberline 25 shingles, in select colors, comply with ASTM 3462-93a.

IKO Manufacturing Inc.

For additional information, contact plant offices as per the following: Plant A: IKO Brampton, 71 Orenda Road, Brampton, Ont. Canada, L6W 1V8; Plant B: IKO 1600 42nd Avenue SE, Calgary, Alberta, Canada, T2P 2L2; Plant C: IKO Hawkesbury 1451 Spence Ave., Hawkesbury, Ont, Canada, K6A 3IKO Plant D: IKO Winnipeg, 421 Archibald Street, Winnipeg, Manitoba, Canada, R2J 0X2; Plant E: Canroof Corporation, 560 Commissioners St., Toronto, Ont., Canada, M4M 1A7; Plant F: IKO Wilmington, 120 Hay Road, Wilmington, DE, 19809; Plant G: IKO Chicago, 6600 S. Central Ave., Chicago, IL, 60638; Plant H: IKO Franklin, 1200 Main Street, Franklin, OH 45005; Plant I: IKO Sumas, 850 West Front Street, Sumas, WA 98295

Other color availability:

Aristocrat (metric size 13 1/4 x 39 3/8) white, dual black, dual gray, earthtone cedar, harvard slate, regal blue, driftwood, charcoal gray, rainbow red, rainbow green, chapel slate, weatherwood, tile red, brown, forest green and black lustre.

Aristocrat (standard size 12 1/4 x 36) white, dual black, dual brown, dual gray, earthtone cedar, driftwood, charcoal gray, rainbow green, rainbow red, forest green and weatherwood.

Imperial Gentry 25 - white, dual black, dual brown, dual gray, earthtone cedar, driftwood, weatherwood, charcoal gray, rainbow red, forest green, rainbow green, harvard slate, national blue and slate.

Marathon 25 - dual gray, dual black, nw driftwood, harvard slate, aged redwood, weatherwood, forest green, heatherwood, castle gray, earthtone cedar, white, charcoal gray, and dual brown.

Cambridge 25 - dual black, nw driftwood, harvard slate, aged redwood, weatherwood, castle gray, dual gray, earthtone cedar, dual brown, charcoal gray, driftwood, and forest green.

Owens Corning

The Owens Corning roofing system consists of the following products: WeatherLock waterproofing shingles (High Style on the west coast and High Ridge for the balance of the country), and Heart-of-Pink shingles. A System Advantage warranty is available to consumers who install a complete Owens Corning roofing system - see actual warranty for regional requirements. The System Advantage warranty is enhanced coverage that offers an extended, upfront period on non-proration that includes all applicable components of the roofing system. The warranty is transferable one time.

All Owens Corning asphalt shingles have a tough Fiberglas mat at the core of each shingle with weather-grade asphalt to help protect the roof against curling, blistering and buckling. Algae-resistant products are available on a regional basis. Color availability varies by region. There are three lines of asphalt shingles and our specialty line as shown below:

Shingle Name	Standard Warranty Year	Standard Warranty True Protection (Non-proration period)	System Advantage Warranty True Protection (non- proration period)
Architectural			
Oakridge 40 Deep Shadow			
Oakridge 30 Shadow	40	5	15
Oakridge 25	30	5	10
	25	5	10
Performance			
Prominence	30	5	10
Weatherguard 30AR	30	5	10
weatherguard 40	40	5	15
Traditional			
Supreme	25	5	10
Classic	20	5	5
Gaslock	25	5	10

Specialty

MiraVista Slate	50	NA	NA
MiraVista Shake	50	NA	NA
MiraVista Copper	50	NA	NA
MiraVista Designer Metal	30	NA	NA

For additional product or technical information and assistance, call 1-800-GET-PINK or visit the website at www.owenscorning.com.

Pabco Roofing Products

Product information, as offered, applies to product made to comply with ASTM D3462. This product information may not apply if compliance to D3462 has not been requested.

Section 2 - Fiber-Cement

Information on Section 2: Fiber-Cement

General Information

Section 2: Fiber-Cement in NRCA's *2002-03 Steep-Slope Roofing Materials Guide* provides a comprehensive listing of fiber-cement products commonly used in steep-slope roofing.

The category of fiber-cement components encompasses those products made of cement and reinforcing fibers, either organic and/or inorganic, that are designed as substitutes for wood shingles/shakes, slate, and tile in steep-slope applications. As such, they are made to look like, or simulate, one of these products, and, in many instances, are installed in a similar manner.

ASTM C 1225 titled, "Standard Specification for Non-Asbestos Fiber-Cement Roofing Shingles, Shakes and Slates"

ASTM C 1459 titled, "Standard Specification for Performance of Non-Asbestos Fiber-Reinforced Cement Shake, Shingle and Slate Roofing Systems"

Additional information regarding fiber-cement roof products is provided in *The NRCA Roofing and Waterproofing Manual*.

Specific Information Included in the Guide

Information on fiber-cement products is presented in the guide in two parts: Part 1: General Information and Part 2: Technical Data.

Specific information included in Part 1: General Information is as follows:

1. Company name
2. Product name
3. Style
4. Material composition
5. Factory-applied coatings
6. Availability
7. Color
8. Dimensions and coverage
9. Hip/ridge pieces available
10. Slope/underlayment-interlayment requirements
11. Recommended decks
12. Year product is first used
13. Number of squares installed
14. Manufacturing plant locations
15. Distribution
16. Sales and technical information contacts

In Part 2: Technical Data, specific listing information is as follows.

1. Company name
2. Product name
3. Complies with ASTM Standard
4. Physical properties
5. Fire/wind/impact resistance
6. Code acceptance

Reporting of technical data in 3 is based on the following American Society for Testing and Materials (ASTM) standards:

Index to Fiber-Cement

NO PRODUCT INFORMATION WAS SUPPLIED BY ANY MANUFACTURER

Fiber-Cement, Part 1 - General Information

1.	COMPANY NAME	NO PRODUCT INFORMATION SUPPLIED BY ANY MANUFACTURER			
2.	PRODUCT NAME				
3.	STYLE				
	Simulated Shingle (specific type if applicable)				
	Simulated Shake (specific type if applicable)				
	Simulated Slate (specific type if applicable)				
	Simulate Tile (specific type if applicable)				
	Other				
	Number of Colors Available				
4.	MATERIAL COMPOSITION				
5.	FACTORY-APPLIED COATING (yes/no)				
6.	AVAILABILITY RESTRICTED REGIONALLY (yes/no)				
7.	COLOR				
	Number of colors available				
	Colors				
8.	DIMENSIONS AND COVERAGE				
	Dimensions (inches x inches)				
	Exposure (inches)				
	Headlap (inches)				
	Pieces Per Roof Square				
	Bundles Per Square				
	Weight Per Roof Square (ambient temp., pounds)				
	Fasteners Required (nails, staples, or specify)				
9.	HIP/RIDGE PIECES AVAILABLE? (yes/no)				
10.	SLOPE/INTERLAYMENT-UNDERLAYMENT RECOMMENDATIONS				
	Minimum Slope Recommended for Normal Application (inches per foot)				
	Interlayment Recommended in Normal Application				
	UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION				
	Minimum Slope Recommended For Special Application (inches per foot)				
	Interlayment Recommended In Special Application				
	Underlayment Recommended In Special Application				
11.	RECOMMENDED DECK MATERIAL:				
	Plywood/Wood				
	Oriented-Strand Board				
	Waferboard				
	Other (specify)				
12.	YEAR PRODUCT FIRST SOLD				
13.	NUMBER OF SQUARES INSTALLED				
14.	MANUFACTURING PLANT LOCATION(S) (City, State)				
15.	DISTRIBUTION				
	Distributors (number handling product or no)				
	Direct (number of regional service locations or no)				
16.	FOR SALES INFORMATION, CONTACT:				
	FOR TECHNICAL INFORMATION, CONTACT:				
17.	SEE APPENDIX IF CHECKED				

NA=not applicable

Fiber-Cement Part 2: Technical Data

1.	COMPANY NAME	NO PRODUCT INFORMATION WAS SUPPLIED BY ANY MANUFACTURER
2.	PRODUCT NAME	
3.	COMPLIES WITH:	
3A.	ASTM C 1225-00 <i>Standard Specification for Non-Asbestos Fiber-Cement Roofing Shingles, Shakes and Slates</i> (indicate grade or NA)	
	Grade 1 -- 0 freeze/thaw cycles, NA retained strength; use limitations	
	Grade 2 -- 25 freeze/thaw cycles; 75% retained strength, use limitations	
	Grade 3 -- 100 freeze/thaw cycles, 75% retained strength, no use limitations	
3B.	ASTM C 1459-00, <i>Standard Specification for Performance of Non-Asbestos Fiber-Reinforced Cement Shake, Shingle and Slate Roofing Systems</i> (indicate X or NA)	
4.	PHYSICAL PROPERTIES	
	Modulus of rupture, saturated, psi, min. 798	
	Breaking moment, saturated, ft. lb./ft., min. 5.6	
	Water absorption, 48 hr., % by mass	
	Moisture content, 73 ± 4 F, 50 ± 5% RH, %	
5.	FIRE/WIND/IMPACT RESISTANCE:	
	Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	
	Wind resistance (indicate maximum wind speed allowable)	
	Impact resistance, UL 2218 (Class 1, 2, 3, or 4)	
6.	CODE ACCEPTANCE:	
	BOCA Evaluation Service, Inc. (report number)	
	ICBO Evaluation Service, Inc. (report number)	
	International Evaluation Service (report number)	
	SBCCI Public Safety Testing & Evaluation Service (report number)	
	National Evaluation Service, Inc. (report number)	
	Other Agencies (agency & report identification number)	
7.	SEE APPENDIX IF CHECKED	

NA=not applicable

Section 3 - Clay and Concrete Tile

Information on Section 3: Clay and Concrete Tile

General Information

Section 3: Clay and Concrete Tile in NRCA's *2002-03 Steep-Slope Roofing Materials Guide* provides a comprehensive listing of clay and concrete tile products commonly used in steep-slope roofing.

Clay tile is produced by baking molded clay into tile. The density of the clay is determined by the length of time and temperature at which it is heated. Tiles may be glazed and may also have surface texture treatment. As a result, there are a wide variety of tile profiles, styles, finishes, and colors available. In addition, each tile may have separate field, ridge, hip, gable, and terminal tiles of various shapes. Installation methods depend upon the nature of the tile being installed, e.g., whether it is two-piece, one-piece, interlocking, flat, and so forth.

The terms used to refer to tile types are not necessarily consistent among manufacturers. Sometimes, a proprietary name is used instead of a generic term that might be more descriptive of the tile product.

Concrete tiles are made of portland cement, sand, and water in varying proportions. The material is mixed and extruded on molds under high pressure. The exposed surface of the tile may be finished with cementitious material colored with synthetic oxide additives. The tiles are then cured to reach the required strength. They generally have lugs on the underside for anchoring to batten strips. There are additional waterlocks, or interlocking ribs on the longitudinal edge, that are for impeding movement and preventing water infiltration.

Like clay tile, there are a wide variety of profiles, styles, finishes, and colors available. Color may be added to the surface of the tile or dispersed throughout, termed "color-through". Special texture may be added in surface treatment. In addition, each tile type may have separate field, ridge, hip, gable, and terminal tiles that are of various shapes.

Concrete tile types can be associated with the roof component that the tile is simulating – whether it be clay tile or shingles, shakes, and slate.

Specific Information Included in the Guide

Information on clay tile and concrete tile roof products is presented in the guide in two parts: Part 1: General Information and Part 2: Technical Data.

For clay tile, specific listing information is as follows:

1. Company name
2. Product name
3. Tile type
4. Tile description
5. Accessory tile available
6. Dimensions and coverage
7. Slope/underlayment recommendations
8. Decks and fastening requirements
9. Year product first sold
10. Number of squares installed
11. Distribution
12. Manufacturing plant locations
13. Sales and technical contact information

In Part 2: Technical Data, specific listing information is as follows:

1. Company name
2. Product name
3. Complies with (ASTM Standard)
4. Fire/wind/impact resistance
5. Code acceptance

Reporting of technical information in Item 3 is based on American Society for Testing and Materials (ASTM) Standard C1167, titled "Standard Specification for Clay Roof Tiles."

For concrete tile, specific listing information is as follows:

1. Company name
2. Product name
3. Tile type
4. Tile description
5. Accessory tile available
6. Dimensions and coverage
7. Slope/underlayment recommendations
8. Decks and fastening requirements
9. Year product first sold
10. Number of squares installed
11. Distribution
12. Manufacturing plant locations
13. Sales and technical contact information

In Part 2: Technical Data, specific listing information is as follows:

1. Company name
2. Product name
3. Complies with (ASTM Standard)
4. Fire/wind/impact resistance
5. Code acceptance

Reporting of technical information in Item 3 is based on American Society for Testing and Materials (ASTM) Standard C1492, titled "Standard Specification for Concrete Roof Tiles."

Additional information regarding clay and concrete tile roof systems is provided in *The NRCA Roofing and Waterproofing Manual*.

Index to Clay and Concrete

	Clay	Concrete
ALTUSA/CLAY FOREVER 6801 N.W. 77th Avenue #301 Miami, FL 33166 305/471-5830 FAX: 305/471-5883 E-mail: Web: www.altusa.com	118 134	
COLUMBIA CONCRETE PRODUCTS LTD. 8650 130th Street Surrey, BC V3W 1G1 Canada 604/596-3388 or 877/388-8453 FAX: 604/597-4481 E-mail: rooftile@crooftile.com		150 153
DANIEL PLATT LTD. c/o NORTHERN ROOF TILE SALES 50 Dundas Street, East, Suite 2 Dunda, ON L9H 7K6 Canada 905/689-4035 FAX: 905/689-7099	118 135	
ENTEGRA SALES, INC. 819 S. Federal Highway, Suite 103 Stuart, FL 34994 561/223-0005 FAX: 561/221-9690 E-mail: Web: www.entegrasales@rooftile.com		150 154
GLADDING MCBEAN P.O. Box 97 Lincoln, CA 95648 800/964-2529 FAX: 916/645-1723 E-mail: rooftile@paccoast.com Web: www.gladdingmcbean.com	119 135	
IMERY TOITURE c/o NORTHERN ROOF TILE SALES 50 Dundas Street, East, Suite 2 Dunda, ON L9H 7K6 Canada 905/689-4035 FAX: 905/689-7099 Web:	121 137 237	
LUDOWICI ROOF TILE INC. P.O. Box 69 New Lexington, OH 43764 800/945-8453 (tile) FAX: 740/342-5229 E-mail: info@ludowicrooftile.com Web: www.ludowici.com	122 137	

	Clay	Concrete
M.C.A. CLAY ROOF TILE 1985 Sampson Avenue Corona, CA 91719 909/736-9590 or 800/736-6221 FAX: 909/736-6052 E-mail: sales@mca-tile.com Web: www.mca-tile.com	131 146	
SANDTOFT ROOF TILES c/o NORTHERN ROOF TILE SALES 50 Dundas Street, East, Suite 2 Dunda, ON L9H 7K6 Canada 905/689-4035 FAX: 905/689-7099	133 148	
TBF c/o NORTHERN ROOF TILE SALES 50 Dundas Street, East, Suite 2 Dunda, ON L9H 7K6 Canada 905/689-4035 FAX: 905/689-7099	238	
TUILERIE DE PONTIGNY ALEONARD c/o NORTHERN ROOF TILE SALES 50 Dundas Street, East, Suite 2 Dunda, ON L9H 7K6 Canada 905/689-4035 FAX: 905/689-7099	238	
U.S. TILE COMPANY 909 Railroad Street Corona, CA 92882 909/737-0200 909/734-9595 E-mail: clayinfo@boral.com Web:	238	
UNICRETE PRODUCTS LTD. 9440 48th Street, SE Calgary, Alberta T2C 2R2 Canada 403/279-8321 FAX: 403/279-0251 E-mail: info@unicrete.com Web: www.unicrete.com		151 154
VANDE HEY-RALEIGH ARCHITECTURAL ROOF TILE 1565 Bohm Drive Little Chute, WI 54140 800/236-8453 920/766-0776 E-mail: manager@vhr-roof-tile.com		151 155

Clay Tile, Part 1: General Information

1. COMPANY NAME	ALTUSA / CLAY FOREVER	ALTUSA / CLAY FOREVER	DANIEL PLATT LTD.
2. PRODUCT NAME	ALTUSA S	BARREL	TUNSTALL
3. TILE TYPE			
"S" (Spanish) Mission Barrel, One Piece			
Straight Barrel Mission, Two Piece	X		
Tapered Mission, Two Piece		X	
Flat, One Piece			X
Flat, Interlocking, One Piece			
Flat Pan and Cover, Two Piece			
4A. TILE DESCRIPTION			DISTRESSED
Texture (specify or NA)			
4B. FINISHES	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
Number of Colors Available	4 / --	4 / --	2 / --
Color Availability (regional/national)	4 / --	4 / --	2 / -
Custom Colors/Blends Available (yes/no)	NO / --	NO / --	YES /
Custom Shapes Available (yes/no)	NO / --	NO / --	YES /
5. ACCESSORY TILES AVAILABLE [e.g., ridge, hip, starter] (yes/no)			YES
6. DIMENSIONS AND COVERAGE			
Tile Dimensions (inches x inches)	8-1/2 X 10-1/2	18-1/2 X 9-1/4	15 X 7-1/4
Minimum Headlap (inches)	2		2
Exposed Size (inches x inches)	16 X 9-1/2	16	6-1/2 X 7-1/4
Pieces Per Roof Square	100	144	305
Weight Per Roof Square (pounds)	700	1008	1450
7. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
Minimum Slope Recommended For Normal Application (inches per foot)	2-1/2:12	2-1/2:12	4:12
Underlayment Recommended In Normal Application	30/90	30/90	40 LB. FELT
Minimum Slope Recommended For Special Applications (inches per foot or NA)	2-1/2:12	2-1/2:12	
Underlayment Recommended in Special Application	30 LB. TIN CAP 90 LB. MOPPED	2 30 LB. FELTS NAILED & SOLID MOPPED	
8. RECOMMENDED DECKS AND FASTENING REQUIREMENTS:			
8A. DECK TYPES			
Solid Sheathing			X
Spaced Sheathing			
8B. DECK MATERIAL			
Plywood/Wood	SEE APPENDIX	SEE APPENDIX	X
Oriented Strand Board	SEE APPENDIX	SEE APPENDIX	
Waferboard	SEE APPENDIX	SEE APPENDIX	
Other (specify)			
8C. FASTENING REQUIREMENTS			
1. Battens Required [at given slope(s), no, or NA]			
a. Solid Sheathing			
b. Spaced Sheathing			
2. Nailing Requirements, Field Tiles			
a. Solid/Spaced Sheathing With Battens [slope(s) or NA]	STAINLESS STEEL SCREWS	STAINLESS STEEL SCREWS	
not required			
each tile, alternate rows			
each tile			
b. Solid/Spaced Sheathing Without Battens [slope(s) or NA]			
not required			
each tile, alternate rows			
each tile			X
9. YEAR PRODUCT FIRST SOLD	1986	1986	2001
10. NUMBER OF SQUARE INSTALLED	590,000	400,000	
11. DISTRIBUTION			
Distributors (number handling product or no)	60	60	
Direct (number of regional service locations or no)			
12. MANUFACTURING PLANT LOCATION(S) (City, State)			ENGLA ND
13. FOR SALES INFORMATION, CONTACT:	305/471-5830	305/471-5830	S. MATTHEWS 905/689-4035
FOR TECHNICAL INFORMATION, CONTACT:	FAX 305/471-5833	FAX 305/471-5833	S. MATTHEWS 905/689-4035
14. SEE APPENDIX IF CHECKED	X	X	

NA=not applicable

Clay Tile, Part 1: General Information

DANIEL PLATT LTD.	GLADDING MCBEAN	GLADDING MCBEAN	GLADDING MCBEAN	GLADDING MCBEAN	GLADDING MCBEAN
HANDCRAFTED	LINCOLN S-TILE	SPANISH S-TILE	CORDOVA	CORDOVA TAPERED CUSTOM	LINCOLN INTERLOCKING
	X	X			
			X		
X				X	
					X
SMOOTH & RUSTIC	SMOOTH	SMOOTH	SMOOTH	TEXTURED	SMOOTH & RUSTIC
NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
4 / --	2 / CUSTOM	1 / CUSTOM	3 / CUSTOM	-- / CUSTOM	4 / CUSTOM
NATIONAL / -	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL
NO / --	YES / NO	YES / YES	YES / YES	YES / YES	YES / YES
NO / --	YES / YES	YES / YES	YES / YES	YES / YES	YES / YES
YES					YES
10-1/2 X 6-1/2	13-1/4 X 20	11-1/4 X 18	8 X 18	VARIED	10 X 14
4-1/2 X 6-1/2	13-1/4 X 17	11-1/4 X 15	8 X 14	VARIED X 14	9 X 11
525	81	107	190	VARIED	145
1650	975	900	900	VARIED	950
8:12	3:12	4:12	4:12	4:12	4:12
30 LB. FELT	30 OR 40 LB. FELT	30 OR 40 LB. FELT	30 OR 40 LB. FELT	30 OR 40 LB. FELT	30 OR 40 LB. FELT
	2:12	3:12	3:12	3:12	3:12
	2 30 LB. FELTS NAILED & SOLID MOPPED	2 30 LB. FELTS NAILED & SOLID MOPPED	2 30 LB. FELTS NAILED & SOLID MOPPED	2 30 LB. FELTS NAILED & SOLID MOPPED	2 30 LB. FELTS NAILED & SOLID MOPPED
1996	1875	1875	1875	1875	1875
	50	50	50	50	50
S. MATTHEWS 905/689-4035	800/964-2529	800/964-2529	800/964-2529	800/964-2529	800/964-2529
S. MATTHEWS 905/689-4035	800/964-2529	800/964-2529	800/964-2529	800/964-2529	800/964-2529

Clay Tile, Part 1: General Information

1.	COMPANY NAME	GLADDING MCBEAN	GLADDING MCBEAN	GLADDING MCBEAN
2.	PRODUCT NAME	LINCOLN GLAZED SHINGLE	ITALIAN PAN AND ITALIAN COVER	BERKELEY PAN AND BERKELEY COVER
3.	TILE TYPE			
	"S" (Spanish) Mission Barrel, One Piece			
	Straight Barrel Mission, Two Piece			
	Tapered Mission, Two Piece			
	Flat, One Piece			
	Flat, Interlocking, One Piece	X		
	Flat Pan and Cover, Two Piece		X	X
4A.	TILE DESCRIPTION			
	Texture (specify or NA)	SMOOTH	SMOOTH	SMOOTH
4B.	FINISHES	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
	Number of Colors Available	CUSTOM / CUSTOM	2 / CUSTOM	2 / CUSTOM
	Color Availability (regional/national)	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL
	Custom Colors/Blends Available (yes/no)	YES / YES	YES / YES	YES / YES
	Custom Shapes Available (yes/no)	YES / YES	YES / YES	YES / YES
5.	ACCESSORY TILES AVAILABLE [e.g., ridge, hip, starter] (yes/no)	YES / YES	YES	YES
6.	DIMENSIONS AND COVERAGE			
	Tile Dimensions (inches x inches)	11-1/2 X 15	12 X 18	8-1/2 X 18
	Minimum Headlap (inches)			
	Exposed Size (inches x inches)	10-3/4 X 12	12 X 14	11 X 14
	Pieces Per Roof Square	114	108	187
	Weight Per Roof Square (pounds)	850	1040	1400
7.	SLOPE/UNDERLAYMENT RECOMMENDATIONS			
	Minimum Slope Recommended For Normal Application (inches per foot)	4:12	4:12	4:12
	Underlayment Recommended In Normal Application	30 OR 40 LB. FELT	30 OR 40 LB. FELT	30 OR 40 LB. FELT
	Minimum Slope Recommended For Special Applications (inches per foot or NA)	3:12	3:12	3:12
	Underlayment Recommended in Special Application	2 30 LB. FELTS NAILED & SOLID MOPPED	2 30 LB. FELTS NAILED & SOLID MOPPED	2 30 LB. FELTS NAILED & SOLID MOPPED
8.	RECOMMENDED DECKS AND FASTENING REQUIREMENTS:			
8A.	DECK TYPES			
	Solid Sheathing			
	Spaced Sheathing			
8B.	DECK MATERIAL			
	Plywood/Wood			
	Oriented Strand Board			
	Waferboard			
	Other (specify)			
8C.	FASTENING REQUIREMENTS			
	1. Battens Required [at given slope(s), no, or NA]			
	a. Solid Sheathing			
	b. Spaced Sheathing			
	2. Nailing Requirements, Field Tiles			
	a. Solid/Spaced Sheathing With Battens [slope(s) or NA]			
	not required			
	each tile, alternate rows			
	each tile			
	b. Solid/Spaced Sheathing Without Battens [slope(s) or NA]			
	not required			
	each tile, alternate rows			
	each tile			
9.	YEAR PRODUCT FIRST SOLD	1875	1875	1875
10.	NUMBER OF SQUARE INSTALLED			
11.	DISTRIBUTION			
	Distributors (number handling product or no)			
	Direct (number of regional service locations or no)	50	50	50
12.	MANUFACTURING PLANT LOCATION(S) (City, State)			
13.	FOR SALES INFORMATION, CONTACT:	800/964-2529	800/964-2529	800/964-2529
	FOR TECHNICAL INFORMATION, CONTACT:	800/964-2529	800/964-2529	800/964-2529
14.	SEE APPENDIX IF CHECKED			

NA=not applicable

Clay Tile, Part 1: General Information

GLADDING MCBEAN	GLADDING MCBEAN	GLADDING MCBEAN	GLADDING MCBEAN	GLADDING MCBEAN	IMERY TOITURE
ITALIAN PAN AND BERKELEY COVER	ITALIAN PAN AND CORDOVA COVER	BERKELEY PAN AND CORDOVA COVER	COTSWOLD	PLACER INTERLOCKING	HPO
			X		
				X	X
X	X				
SMOOTH	SMOOTH	SMOOTH	TEXTURED	SMOOTH	SMOOTH
NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
2 / CUSTOM	2 / CUSTOM	2 / CUSTOM	2 / CUSTOM		2 / --
NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL		2 / --
YES / YES	YES / YES	YES / YES	YES / YES	YES / YES	NO / --
YES / YES	YES / YES	YES / YES	YES / YES	YES / YES	NO / --
YES	YES	YES	YES	EYS	YES
8-1/2 X 18 / 12 X 18	12 X 18 / 8 X 18	8-1/2 X 18 / 8 X 18	6-1/2, 7-1/4, 8-1/2 & 9 X 14	11 X 15	18 X 12
				3	3
15 X 14	14-1/2 X 14	10-3/4 X 14	6-10	10 X 12	14 3/4 X 10 1/2
138	142	192	308-485	120	95
1200	1080	1250	1510 - 907	960	900
4:12	4:12	4:12		4:12	4:12
30 OR 40 LB. FELT	30 OR 40 LB. FELT	30 OR 40 LB. FELT		30 OR 40 LB. FELT	40 LB. FELT
3:12	3:12	3:12	3:12	N/A	
2 30 LB. FELTS NAILED & SOLID MOPPED	2 30 LB. FELTS NAILED & SOLID MOPPED	2 30 LB. FELTS NAILED & SOLID MOPPED	2 30 LB. FELTS NAILED & SOLID MOPPED	N/A	
				X	X
				X	X
				NA	OPTIONAL
				X	
				X	X
1875	1875	1875	1875	2001	1999
				2000	
				YES	
50	50	50	50	NO	X
				LINCOLN, CA	FRANCE
800/964-2529	800/964-2529	800/964-2529	800/964-2529	800/964-2529	S. MATTHEWS 905/627-4035
800/964-2529	800/964-2529	800/964-2529	800/964-2529	800/964-2529	S. MATTHEWS 905/627-4035

Clay Tile, Part 1: General Information

1. COMPANY NAME	IMERY TOITURE	LUDOWICI ROF TILE, INC.	LUDOWICI ROOF TILE, INC.
2. PRODUCT NAME	ST. FOY	CELADON CERAMIC SLATE	AMERICANA
3. TILE TYPE			
"S" (Spanish) Mission Barrel, One Piece			
Straight Barrel Mission, Two Piece			
Tapered Mission, Two Piece			
Flat, One Piece	X		
Flat, Interlocking, One Piece		X	X
Flat Pan and Cover, Two Piece			
4A. TILE DESCRIPTION			
Texture (specify or NA)		NATURAL SLATE	TREE BARK/SANDED
4B. FINISHES	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
Number of Colors Available		1 / 47	1 / 47
Color Availability (regional/national)		NATIONAL / NATIONAL	NATIONAL / NATIONAL
Custom Colors/Blends Available (yes/no)	NO / --	NO / YES	NO / YES
Custom Shapes Available (yes/no)	NO / --	YES / YES	YES / YES
5. ACCESSORY TILES AVAILABLE [e.g., ridge, hip, starter] (yes/no)	YES	YES	YES
6. DIMENSIONS AND COVERAGE			
Tile Dimensions (inches x inches)	10 3/4 X 6 3/4	16 X 10-3/4	14 X 9
Minimum Headlap (inches)	2		
Exposed Size (inches x inches)	4 3/8 X 6 3/4	13-1/4 X 10-1/8	11 X 8-1/4
Pieces Per Roof Square	500	108	158
Weight Per Roof Square (pounds)	1400	580	800
7. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
Minimum Slope Recommended For Normal Application (inches per foot)	6:12	4:12	3:12
Underlayment Recommended In Normal Application	40 LB. FELT	43 LB. FELT	43 LB. FELT
Minimum Slope Recommended For Special Applications (inches per foot or NA)		3:12	
Underlayment Recommended in Special Application		WINTERGUARD OR BUR EQUIVALENT	
8. RECOMMENDED DECKS AND FASTENING REQUIREMENTS:			
8A. DECK TYPES			
Solid Sheathing	X		
Spaced Sheathing			
8B. DECK MATERIAL			
Plywood/Wood	X	3/4"/1"	3/4"/1"
Oriented Strand Board			
Waferboard			
Other (specify)			
8C. FASTENING REQUIREMENTS			
1. Battens Required [at given slope(s), no, or NA]	OPTIONAL	NO	NO
a. Solid Sheathing			
b. Spaced Sheathing			
2. Nailing Requirements, Field Tiles			
a. Solid/Spaced Sheathing With Battens [slope(s) or NA]			
not required			
each tile, alternate rows			
each tile			
b. Solid/Spaced Sheathing Without Battens [slope(s) or NA]			
not required			
each tile, alternate rows			
each tile	X		
9. YEAR PRODUCT FIRST SOLD		1994	1948
10. NUMBER OF SQUARE INSTALLED		>120,000	>500,000
11. DISTRIBUTION			
Distributors (number handling product or no)		>50	>50
Direct (number of regional service locations or no)	X		1
12. MANUFACTURING PLANT LOCATION(S) (City, State)	FRANCE	NEW LEXINGTON, OH	NEW LEXINGTON, OH
13. FOR SALES INFORMATION, CONTACT:	S. MATTHEWS 905/627-4035	800/945-8453	800/945-8453
FOR TECHNICAL INFORMATION, CONTACT:	S. MATTHEWS 905/627-4035	800/945-8453	800/945-8453
14. SEE APPENDIX IF CHECKED		X	X

NA=not applicable

Clay Tile, Part 1: General Information

LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.
XL AMERICANA	ANTIQUE	BRITTANY	CALAIS	CLASSIC	XL CLASSIC
	X	X	X		
X				X	X
TREE BARK	HAND TREATED IRREGULAR	SANDED AND INDENTED	CRATERED/SANDED	SMOOTH	SMOOTH
NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
1 / 47	1 / 47	1 / 47	1 / 47	1 / 47	1 / 47
NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL
NO / YES	NO / YES	NO / YES	NO / YES	NO / YES	NO / YES
YES / YES	YES / YES	YES / YES	YES / YES	YES / YES	YES / YES
YES	YES	YES	YES	YES	YES
16 X 10-3/4	12 X 7	12 X 7	15 X 7	14 X 9	16 X 10-7/8
13 X 10-1/8	5 X 7	5 X 7	6-1/2 X 7	11 X 8-1/4	13 X 10-1/8
109	412	412	317	158	109
750	1650	1900	1600	800	750
3:12	5:12	5:12	5:12	3:12	3:12
43-LB. FELT	43 LB. FELT	43 LB. FELT	43 LB. FELT	43 LB. FELT	43 LB. FELT
	3:12	3:12	3:12		
	WINTERGUARD OR BUR EQUIVALENT	WINTERGUARD OR BUR EQUIVALENT	WINTERGUARD OR BUR EQUIVALENT		
3/4"/1"	3/4"/1"	3/4"/1"	3/4"/1"	3/4"/1"	3/4"/1"
NO	NO	NO	NO	NO	NO
1996	1900	1900	1993	1948	1996
>10,000	>5,000	>50,000	<5,000	>500,000	>20,000
>50	>50	>50	>50	50	50
1	1	1	1	1	1
NEW LEXINGTON, OH	NEW LEXINGTON, OH	NEW LEXINGTON, OH	NEW LEXINGTON, OH	NEW LEXINGTON, OH	NEW LEXINGTON, OH
800/945-8453	800/945-8453	800/945-8453	800/945-8453	800/945-8453	800/945-8453
800/945-8453	800/945-8453	800/945-8453	800/945-8453	800/945-8453	800/945-8453
X	X	X	X	X	X

Clay Tile, Part 1: General Information

1. COMPANY NAME	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.
2. PRODUCT NAME	COFFEYVILLE ENGLISH	COLONIAL	8" CONSOSERA
3. TILE TYPE			
"S" (Spanish) Mission Barrel, One Piece			
Straight Barrel Mission, Two Piece			
Tapered Mission, Two Piece			
Flat, One Piece		X	
Flat, Interlocking, One Piece	X		X
Flat Pan and Cover, Two Piece			
4A. TILE DESCRIPTION			
Texture (specify or NA)	SMOOTH	SANDED & INDENTED	
4B. FINISHES	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
Number of Colors Available	1 / 47	1 / 47	1 / 47
Color Availability (regional/national)	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL
Custom Colors/Blends Available (yes/no)	NO / YES	NO / YES	NO / YES
Custom Shapes Available (yes/no)	YES / YES	YES / YES	YES / YES
5. ACCESSORY TILES AVAILABLE [e.g., ridge, hip, starter] (yes/no)	YES	YES	YES
6. DIMENSIONS AND COVERAGE			
Tile Dimensions (inches x inches)	13-1/4 X 8-3/4	14-5/8 X 7-3/8	13 X 8-3/4
Minimum Headlap (inches)			
Exposed Size (inches x inches)	10-1/8 X 7-3/4	6-5/16 X 7-3/8	10-3/4 X 7-3/4
Pieces Per Roof Square	182	310	173
Weight Per Roof Square (pounds)	1380	1800	1000
7. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
Minimum Slope Recommended For Normal Application (inches per foot)	3:12	5:12	3:12
Underlayment Recommended In Normal Application	43 LB. FELT	43 LB. FELT	43 LB. FELT
Minimum Slope Recommended For Special Applications (inches per foot or NA)		3:12	
Underlayment Recommended in Special Application		WINTERGUARD OR BUILT-UP ROOFING	
8. RECOMMENDED DECKS AND FASTENING REQUIREMENTS:			
8A. DECK TYPES			
Solid Sheathing			
Spaced Sheathing			
8B. DECK MATERIAL			
Plywood/Wood	3/4"/1"	3/4"/1"	3/4"/1"
Oriented Strand Board			
Waferboard			
Other (specify)			
8C. FASTENING REQUIREMENTS			
1. Battens Required [at given slope(s), no, or NA]	NO	NO	NO
a. Solid Sheathing			
b. Spaced Sheathing			
2. Nailing Requirements, Field Tiles			
a. Solid/Spaced Sheathing With Battens [slope(s) or NA]			
not required			
each tile, alternate rows			
each tile			
b. Solid/Spaced Sheathing Without Battens [slope(s) or NA]			
not required			
each tile, alternate rows			
each tile			
9. YEAR PRODUCT FIRST SOLD	1920	1950	1880
10. NUMBER OF SQUARE INSTALLED	>50,000	>15,000	>10,000
11. DISTRIBUTION			
Distributors (number handling product or no)	50	50	50
Direct (number of regional service locations or no)	1	1	1
12. MANUFACTURING PLANT LOCATION(S) (City, State)	NEW LEXINGTON, OH	NEW LEXINGTON, OH	NEW LEXINGTON, OH
13. FOR SALES INFORMATION, CONTACT:	800/945-8453	800/945-8453	800/945-8453
FOR TECHNICAL INFORMATION, CONTACT:	800/945-8453	800/945-8453	800/945-8453
14. SEE APPENDIX IF CHECKED	X	X	X

NA=not applicable

Clay Tile, Part 1: General Information

LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.
CRUDE	18" CUBANA	DESIGNER	EARLY AMERICAN OLD TYPE	FRENCH	GEORGIAN
X	X				X
		X	X	X	
	SMOOTH/SANDED	MULTIPLE	TREE BARK/SANDED	DEEP FLUTED/SANDED	HAND ROUGHED
NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
1 / 47	1 / 47	1 / 47	1 / 47	1 / 47	1 / 47
NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL
NO / YES	NO / YES	NO / YES	NO / YES	NO / YES	NO / YES
YES / YES	YES / YES	YES / YES	YES / YES	YES / YES	YES / YES
YES	YES	YES	YES	YES	YES
12 X 6	18-3/8 X 8-1/4 TAPERS TO 7	14 X 9	13-3/4 X 8-5/8	16-1/4 X 9	15 X 8
5 X 6	15-3/8 X 5-5/8	11 X 8-1/4	10-3/4 X 7-7/8	13-3/8 X 8-1/8	6-1/2 X 8
480	163	158	173	133	276
1850	1200	800	825	1025	1635
5:12	5:12	3:12	3:12	3:12	5:12
43 LB. FELT	43 LB. FELT	43 LB. FELT	43 LB. FELT	43 LB. FELT	43 LB. FELT
3:12	3:12				3:12
WINTERGUARD OR BUILT-UP ROOFING	WINTERGUARD OR BUR EQUIVALENT				WINTERGUARD OR BUR EQUIVALENT
3/4"/1"	3/4"/1"	3/4"/1"	3/4"/1"	3/4"/1"	3/4"/1"
NO	NO	NO	NO	NO	NO
1900	1900	1910	1900	1890	1900
>10,000	>5,000	>100,000	>250,000	>500,000	>20,000
50	>50	>50	>50	>50	>50
1	1	1	1	1	1
NEW LEXINGTON, OH	NEW LEXINGTON, OH	NEW LEXINGTON, OH	NEW LEXINGTON, OH	NEW LEXINGTON, OH	NEW LEXINGTON, OH
800/945-8453	800/945-8453	800/945-8453	800/945-8453	800/945-8453	800/945-8453
800/945-8453	800/945-8453	800/945-8453	800/945-8453	800/945-8453	800/945-8453
X	X	X	X	X	X

Clay Tile, Part 1: General Information

1. COMPANY NAME	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.
2. PRODUCT NAME	GREEK	IMPERIAL	JAMESTOWN
3. TILE TYPE			
"S" (Spanish) Mission Barrel, One Piece			
Straight Barrel Mission, Two Piece			
Tapered Mission, Two Piece			
Flat, One Piece			
Flat, Interlocking, One Piece		X	X
Flat Pan and Cover, Two Piece	X		
4A. TILE DESCRIPTION			
Texture (specify or NA)	SMOOTH	SMOOTH	HAND ROUGHED
4B. FINISHES	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
Number of Colors Available	1 / 28	1 / 47	1 / 47
Color Availability (regional/national)	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL
Custom Colors/Blends Available (yes/no)	NO / YES	NO / YES	NO / YES
Custom Shapes Available (yes/no)	YES / YES	YES / YES	YES / YES
5. ACCESSORY TILES AVAILABLE [e.g., ridge, hip, starter] (yes/no)	YES	YES	YES
6. DIMENSIONS AND COVERAGE			
Tile Dimensions (inches x inches)	2-3/4 X P 9-3/4 X C 6-1/2	15 X 10	11 X 8-3/4
Minimum Headlap (inches)			
Exposed Size (inches x inches)	10 X 6	12 X 9-1/4	8 X 8
Pieces Per Roof Square	240	129	225
Weight Per Roof Square (pounds)	1250	860	900
7. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
Minimum Slope Recommended For Normal Application (inches per foot)	5:12	3:12	3:12
Underlayment Recommended In Normal Application	43 LB. FELT	43 LB. FELT	43 LB. FELT
Minimum Slope Recommended For Special Applications (inches per foot or NA)	<5:12		
Underlayment Recommended in Special Application	WINTERGUARD OR BUILT-UP ROOFING		
8. RECOMMENDED DECKS AND FASTENING REQUIREMENTS:			
8A. DECK TYPES			
Solid Sheathing			
Spaced Sheathing			
8B. DECK MATERIAL			
Plywood/Wood	3/4"/1"	3/4"/1"	3/4"/1"
Oriented Strand Board			
Waferboard			
Other (specify)			
8C. FASTENING REQUIREMENTS			
1. Battens Required [at given slope(s), no, or NA]	NO	NO	NO
a. Solid Sheathing			
b. Spaced Sheathing			
2. Nailing Requirements, Field Tiles			
a. Solid/Spaced Sheathing With Battens [slope(s) or NA]			
not required			
each tile, alternate rows			
each tile			
b. Solid/Spaced Sheathing Without Battens [slope(s) or NA]			
not required			
each tile, alternate rows			
each tile			
9. YEAR PRODUCT FIRST SOLD	1900	1980	1910
10. NUMBER OF SQUARE INSTALLED	>5,000	>5,000	>250,000
11. DISTRIBUTION			
Distributors (number handling product or no)	>50	>50	>50
Direct (number of regional service locations or no)	1	1	1
12. MANUFACTURING PLANT LOCATION(S) (City, State)	NEW LEXINGTON, OH	NEW LEXINGTON, OH	NEW LEXINGTON, OH
13. FOR SALES INFORMATION, CONTACT:			
800/945-8453	800/945-8453	800/945-8453	
FOR TECHNICAL INFORMATION, CONTACT:			
800/945-8453	800/945-8453	800/945-8453	
14. SEE APPENDIX IF CHECKED	X	X	X

NA=not applicable

Clay Tile, Part 1: General Information

LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.
LANAI	XL LANIA	LIGHTWEIGHT INTERLOCKING	14-1/4" MISSION	16" MISSION	16" TAPERED MISSION
			X	X	
					X
X	X	X			
SANDED	SANDED	SMOOTH OR SANDED	FINE MACHINE SCORED	FINE MACHINE SCORED	SMOOTH
NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
-- / 4	-- / 4	1 / 47	1 / 47	1 / 47	1 / 47
NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL
NO / YES	NO / YES	NO / YES	NO / YES	NO / YES	NO / YES
YES / YES	YES / YES	YES / YES	YES / YES	YES / YES	YES / YES
YES	YES	YES	YES	YES	YES
14 X 9	16 X 10-3/4	13-3/4 X 8-5/8	14-1/4 X 8	16 X 8	16 X 7 TAPERS TO 4-3/4
11 X 8-1/4	13 X 10-1/8	10-3/4 X 7-7/8	11-1/4 X 5-3/4	13 X 5-3/4	13 X 5-1/4
158	109	173	225	192	212
800	750	825	1250	1190	1230
3:12	3:12	3:12	5:12	5:12	5:12
43 LB. FELT	43 LB. FELT	43 LB. FELT	43 LB. FELT	43 LB. FELT	43 LB. FELT
			3:12 WINTERGUARD OR BUR EQUIVALENT	3:12 WINTERGUARD OR BUR EQUIVALENT	3:12 WINTERGUARD OR BUR EQUIVALENT
3/4"/1"	3/4"/1"	3/4"/1"	3/4"/1"	3/4"/1"	3/4"/1"
NO	NO	NO	NO	NO	NO
1948	1996	1900	1900	1900	1900
>500,000	>10,000	>100,000	>10,000	>500,000	>500,000
>50	>50	>50	>50	>50	>50
1	1	1	1	1	1
NEW LEXINGTON, OH	NEW LEXINGTON, OH	NEW LEXINGTON, OH	NEW LEXINGTON, OH	NEW LEXINGTON, OH	NEW LEXINGTON, OH
800/945-8453	800/945-8453	800/945-8453	800/945-8453	800/945-8453	800/945-8453
800/945-8453	800/945-8453	800/945-8453	800/945-8453	800/945-8453	800/945-8453
X	X	X	X	X	X

Clay Tile, Part 1: General Information

1.	COMPANY NAME	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.
2	PRODUCT NAME	PALM BEACH TAPERED MISSION	NORMAN	PROVINCIAL
3.	TILE TYPE			
	"S" (Spanish) Mission Barrel, One Piece			
	Straight Barrel Mission, Two Piece			
	Tapered Mission, Two Piece	X		
	Flat, One Piece		X	X
	Flat, Interlocking, One Piece			
	Flat Pan and Cover, Two Piece			
4A.	TILE DESCRIPTION			
	Texture (specify or NA)	FINE MACHINE SCORED	WEATHERED/CRATERED	FINE MACHINE SCORED
4B.	FINISHES	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
	Number of Colors Available	1 / 47	-- / 1	1 / 47
	Color Availability (regional/national)	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL
	Custom Colors/Blends Available (yes/no)	NO / YES	NO / NO	NO / YES
	Custom Shapes Available (yes/no)	YES / YES	YES / YES	YES / YES
5.	ACCESSORY TILES AVAILABLE [e.g., ridge, hip, starter] (yes/no)	YES	YES	YES
6.	DIMENSIONS AND COVERAGE			
	Tile Dimensions (inches x inches)	18-3/8 X 8 TAPERS TO 6-7/16	15 X 7	15 X 7
	Minimum Headlap (inches)			
	Exposed Size (inches x inches)	15-3/8 X 5-3/4	6-1/2 X 7	6-1/2 X 7
	Pieces Per Roof Square	163	317	317
	Weight Per Roof Square (pounds)	1100	1600	1600
7.	SLOPE/UNDERLAYMENT RECOMMENDATIONS			
	Minimum Slope Recommended For Normal Application (inches per foot)	4:12	5:12	5:12
	Underlayment Recommended In Normal Application	43 LB. FELT	43 LB. FELT	43 LB. FELT
	Minimum Slope Recommended For Special Applications (inches per foot or NA)	3:12	3:12	3:12
	Underlayment Recommended in Special Application	WINTERGUARD OR BUR EQUIVALENT	WINTERGUARD OR BUR EQUIVALENT	WINTERGUARD OR BUR EQUIVALENT
8.	RECOMMENDED DECKS AND FASTENING REQUIREMENTS:			
8A.	DECK TYPES			
	Solid Sheathing			
	Spaced Sheathing			
8B.	DECK MATERIAL			
	Plywood/Wood	3/4"/1"	3/4"/1"	3/4"/1"
	Oriented Strand Board			
	Waferboard			
	Other (specify)			
8C.	FASTENING REQUIREMENTS			
	1. Battens Required [at given slope(s), no, or NA]	NO	NO	NO
	a. Solid Sheathing			
	b. Spaced Sheathing			
	2. Nailing Requirements, Field Tiles			
	a. Solid/Spaced Sheathing With Battens [slope(s) or NA]			
	not required			
	each tile, alternate rows			
	each tile			
	b. Solid/Spaced Sheathing Without Battens [slope(s) or NA]			
	not required			
	each tile, alternate rows			
	each tile			
9.	YEAR PRODUCT FIRST SOLD	1997	1920	1920
10.	NUMBER OF SQUARE INSTALLED	>2,000	>100,000	>50,000
11.	DISTRIBUTION			
	Distributors (number handling product or no)	>50	>50	>50
	Direct (number of regional service locations or no)	1	1	1
12.	MANUFACTURING PLANT LOCATION(S) (City, State)	NEW LEXINGTON, OH	NEW LEXINGTON, OH	NEW LEXINGTON, OH
13.	FOR SALES INFORMATION, CONTACT:			
	800/945-8453	800/945-8453	800/945-8453	
	FOR TECHNICAL INFORMATION, CONTACT:			
	800/945-8453	800/945-8453	800/945-8453	
14.	SEE APPENDIX IF CHECKED	X	X	X

NA=not applicable

Clay Tile, Part 1: General Information

LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.
ROMAN	18" SBM	CLOSED SHINGLE	FLAT SLAB SHINGLE	SPANISH	18" SPANISH
				X	X
	X				
			X		
		X			
X					
SMOOTH	FINE MACHINE SCORED	SMOOTH/SANDED	SMOOTH/SANDED	SMOOTH	SMOOTH/SANDED
NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
1 / 47	1 / 47	1 / 47	1 / 47	1 / 47	1 / 47
NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL
NO / YES	NO / YES	NO / YES	NO / YES	NO / YES	NO / YES
YES / YES	YES / YES	YES / YES	YES / YES	YES / YES	YES / YES
YES	YES	YES	YES	YES	YES
12-3/4 X P 9-3/4 X C 6-1/2	18-3/8 X 8	11 X 8-3/4	12 X 6	13 1/4 X 9-3/4	18-3/8 X 9-3/4
10 X 6	15-3/8 X 5-3/4	8 X 8	5 X 6	10-1/4 X 8-1/4	15-3/8 X 8-1/4
240	163	225	480	171	114
1250	1165	1130	1300/1780	900	800
5:12	5:12	3:12	5:12	4:12	4:12
43 LB. FELT	43 LB. FELT	43 LB. FELT	43 LB. FELT	43 LB. FELT	43 LB. FELT
3:12	3:12		3:12	3:12	3:12
WINTERGUARD OR BUR EQUIVALENT	WINTERGUARD OR BUR EQUIVALENT		WINTERGUARD OR BUR EQUIVALENT	WINTERGUARD OR BUR EQUIVALENT	WINTERGUARD OR BUR EQUIVALENT
3/4"/1"	3/4"/1"	3/4"/1"	3/4"/1"	3/4"/1"	3/4"/1"
NO	NO	NO	NO	NO	NO
1900	1996	1900	1900	1900	1996
>5,000	>10,000	>250,000	>5,000	>500,000	>10,000
>50	>50	>50	>50	>50	>50
1	1	1	1	1	1
NEW LEXINGTON, OH	NEW LEXINGTON, OH	NEW LEXINGTON, OH	NEW LEXINGTON, OH	NEW LEXINGTON, OH	NEW LEXINGTON, OH
800/945-8453	800/945-8453	800/945-8453	800/945-8453	800/945-8453	800/945-8453
800/945-8453	800/945-8453	800/945-8453	800/945-8453	800/945-8453	800/945-8453
X	X	X	X	X	X

Clay Tile, Part 1: General Information

1. COMPANY NAME	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.
2. PRODUCT NAME	TILESTONE	WILLIAMSBURG	XL WILLIAMSBURG
3. TILE TYPE			
"S" (Spanish) Mission Barrel, One Piece			
Straight Barrel Mission, Two Piece			
Tapered Mission, Two Piece			
Flat, One Piece			
Flat, Interlocking, One Piece	X	X	X
Flat Pan and Cover, Two Piece			
4A. TILE DESCRIPTION			
Texture (specify or NA)	STONE	HAND ROUGHED	HAND ROUGHED
4B. FINISHES	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
Number of Colors Available	1 / 47	1 / 47	1 / 47
Color Availability (regional/national)	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL
Custom Colors/Blends Available (yes/no)	NO / YES	NO / YES	NO / YES
Custom Shapes Available (yes/no)	YES / YES	YES / YES	YES / YES
5. ACCESSORY TILES AVAILABLE [e.g., ridge, hip, starter] (yes/no)	YES	YES	YES
6. DIMENSIONS AND COVERAGE			
Tile Dimensions (inches x inches)	11 X 8-3/4	14 X 9	16 X 10-3/4
Exposed Size (inches x inches)	8 X 8	11 X 8-1/4	13 X 10-1/8
Pieces Per Roof Square	225	158	109
Weight Per Roof Square (pounds)	900	800	750
7. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
Minimum Slope Recommended For Normal Application (inches per foot)	3:12	3:12	3:12
Underlayment Recommended In Normal Application	43 LB. FELT	43 LB. FELT	43 LB. FELT
Minimum Slope Recommended For Special Applications (inches per foot or NA)			
Underlayment Recommended in Special Application			
8. RECOMMENDED DECKS AND FASTENING REQUIREMENTS:			
8A. DECK TYPES			
Solid Sheathing			
Spaced Sheathing			
8B. DECK MATERIAL			
Plywood/Wood	3/4"/1"	3/4"/1"	3/4"/1"
Oriented Strand Board			
Waferboard			
Other (specify)			
8C. FASTENING REQUIREMENTS			
1. Battens Required [at given slope(s), no, or NA]	NO	NO	NO
a. Solid Sheathing			
b. Spaced Sheathing			
2. Nailing Requirements, Field Tiles			
a. Solid/Spaced Sheathing With Battens [slope(s) or NA]			
not required			
each tile, alternate rows			
each tile			
b. Solid/Spaced Sheathing Without Battens [slope(s) or NA]			
not required			
each tile, alternate rows			
each tile			
9. YEAR PRODUCT FIRST SOLD	1900	1925	1996
10. NUMBER OF SQUARES INSTALLED	>10,000	>500,000	>10,000
11. DISTRIBUTION			
Distributors (number handling product or no)	>50	>50	>50
Direct (number of regional service locations or no)	1	1	1
12. MANUFACTURING PLANT LOCATION(S) (City, State)	NEW LEXINGTON, OH	NEW LEXINGTON, OH	NEW LEXINGTON, OH
14. FOR SALES INFORMATION, CONTACT:	800/945-8453	800/945-8453	800/945-8453
FOR TECHNICAL INFORMATION, CONTACT:	800/945-8453	800/945-8453	800/945-8453
15. SEE APPENDIX IF CHECKED	X	X	X

NA=not applicable

Clay Tile, Part 1: General Information

M.C.A. CLAY TILE	M.C.A. CLAY TILE	M.C.A. CLAY TILE	M.C.A. CLAY TILE	M.C.A. CLAY TILE	M.C.A. CLAY TILE
ONE-PIECE "S"	10" STRAIGHT BARREL MISSION	8" STRAIGHT BARREL MISSION	ORIENTAL	MF 108 INTERLOCKING FLAT TILE	IMPROVED - S
X					X
	X	X			
			X		
				X	
SMOOTH/PEBBLE	SMOOTH / PEBBLE	SMOOTH / PEBBLE	SMOOTH	SMOOTH / PEBBLE	SMOOTH
NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
MANY / MANY	MANY / MANY	MANY / MANY	MANY	MANY	MANY
NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL
YES / YES	YES / YES	YES / YES	YES / YES	YES / YES	YES / YES
YES / YES	YES / YES	YES / YES	NO / NO	NO / NO	NO / NO
YES	YES	YES	YES	YES	YES
19 X 14	19 X 10	19 X 8	12 X 12	13-3/4 X 13-3/4	12-3/8 X 12-3/8
3	3	3	2.5	2.5	2
16 X 12	16 X O.C.	16 X 11	10-1/2 X 9-1/2	11-1/8 X 12	10-1/2 X 10-1/2
75	134	164	144	108	131
788	1020	1070	840	850	950
3:12	3:12	3:12	4:12	4:12	4:12
30 LB. FELT	30 LB. FELT	30 LB. FELT	30 LB. FELT	2 PLY 30 LB. FELT	30 LB. FELT
<3:12	<3:12	<3:12	4:12	<4:12	<4:12
2 PLY #30 LB FELT OR UPGRADE	2 PLY # 30 FELT OR UPGRADE	2 PLY #30 FELT OR UPGRADE	2 PLY #30 FELT OR UPGRADE	2 PLY #30 FELT OR UPGRADE	2 PLY #30 FELT OR UPGRADE
X	X	X	X	X	X
X	X	X	X	X	X
CONCRETE / METAL	CONCRETE / WOOD	CONCRETE / WOOD	CONCRETE / METAL	CONCRETE / METAL	CONCRETE / METAL
	NO	NO	ANY SLOPE	ANY SLOPE	ANY SLOPE
NO			X	X	X
NO					
			EACH TILE	EACH TILE	EACH TILE
			1	1	1
EACH TILE	EACH TILE	EACH TILE			
1	1	1			
1985	1985	1985	1911	1987	1932
>1,000,000	>1,000,000	>1,000,000	>1,000,000	>1,000,000	>1,000,000
			X	X	X
			NO	NO	NO
CORONA, CA	CORONA, CA	CORONA, CA	AIKI, JAPAN	AWAJI, JAPAN	AICHI, JAPAN
800/736-6221	800/736-6221	800/736-6221	800/736-6221	800/736-6221	800/736-6221
800/736-6221	800/736-6221	800/736-6221	800/736-6221	800/736-6221	800/736-6221
			X	X	X

Clay Tile, Part 1: General Information

1. COMPANY NAME	M.C.A. CLAY TILE	M.C.A. CLAY TILE	M.C.A. CLAY TILE
2. PRODUCT NAME	TURRET TILE	CORONA TAPERED MISSION	CLASSIC TAPERED MISSION
3. TILE TYPE			
"S" (Spanish) Mission Barrel, One Piece			
Straight Barrel Mission, Two Piece			
Tapered Mission, Two Piece	X	X	X
Flat, One Piece			
Flat, Interlocking, One Piece			
Flat Pan and Cover, Two Piece			
4A. TILE DESCRIPTION			
Texture (specify or NA)	SMOOTH/PEBBLE	SMOOTH/PEBBLE	SMOOTH/PEBBLE
4B. FINISHES	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
Number of Colors Available	MANY	MANY	MANY
Color Availability (regional/national)	NATIONAL / NATIONAL	NATIONAL/NATIONAL	NATIONAL/NATIONAL
Custom Colors/Blends Available (yes/no)	YES / YES	YES / YES	YES / YES
Custom Shapes Available (yes/no)	YES / YES	YES / YES	YES / YES
5. ACCESSORY TILES AVAILABLE [e.g., ridge, hip, starter] (yes/no)	YES	YES	YES
6. DIMENSIONS AND COVERAGE			
Tile Dimensions (inches x inches)	VARY	19 X 8.7	19 X 7-1/4
	3	3	3
Exposed Size (inches x inches)	VARY	18 X 12	16 X 10
Pieces Per Roof Square	VARY	130	180
Weight Per Roof Square (pounds)	VARY	1070	1040
7. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
Minimum Slope Recommended For Normal Application (inches per foot)	3:12	3:12	3:12
Underlayment Recommended In Normal Application	ICE & SHEET WITH 30# FELT	30 LB. FELT	30 LB. FELT
Minimum Slope Recommended For Special Applications (inches per foot or NA)	<3:12	<3:12	<3:12
Underlayment Recommended in Special Application	ICE & SHEET WITH 30# FELT	2 PLY #30 FELT OR UPGRADE	2 PLY #30 FELT OR UPGRADE
8. RECOMMENDED DECKS AND FASTENING REQUIREMENTS:			
8A. DECK TYPES			
Solid Sheathing	X	X	X
Spaced Sheathing			
8B. DECK MATERIAL			
Plywood/Wood	X	X	X
Oriented Strand Board			
Waferboard			
Other (specify)		CONCRETE / METAL	CONCRETE / METAL
8C. FASTENING REQUIREMENTS			
1. Battens Required [at given slope(s), no, or NA]		NO	NO
a. Solid Sheathing			
b. Spaced Sheathing			
2. Nailing Requirements, Field Tiles			
a. Solid/Spaced Sheathing With Battens [slope(s) or NA]			
not required			
each tile, alternate rows			
each tile			
b. Solid/Spaced Sheathing Without Battens [slope(s) or NA]			
not required			
each tile, alternate rows	EACH TILE	EACH TILE	EACH TILE
each tile	1	1	1
9. YEAR PRODUCT FIRST SOLD	1987	1987	1987
10. NUMBER OF SQUARES INSTALLED	>3,000	>1,000,000	>100,000
11. DISTRIBUTION			
Distributors (number handling product or no)	X	X	X
Direct (number of regional service locations or no)	NO	NO	NO
12. MANUFACTURING PLANT LOCATION(S) (City, State)	CORONA, CA	CORONA, CA	CORONA, CA
14. FOR SALES INFORMATION, CONTACT:			
	800/736-6221	800/736-6221	800/736-6221
FOR TECHNICAL INFORMATION, CONTACT:			
	800/736-6221	800/736-6221	800/736-6221
15. SEE APPENDIX IF CHECKED	X	X	X

NA=not applicable

Clay Tile, Part 1: General Information

M.C.A. CLAY TILE	SANDTOFT ROOF TILES	SANDTOFT ROOF TILES	SANDTOFT ROOF TILES	SANDTOFT ROOF TILES	SANDTOFT ROOF TILES
ROMAN TILE	COUNTY PAN TILE	EUROPA	FLEMISH	GOXHILL HANDMADE	20/20
	X	X	X		
				X	
X					X
SMOOTH/PEBBLE	SMOOTH	SMOOTH	SMOOTH	RUSTIC	SMOOTH
NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
MANY	4 / --	6 / --	6 / --	3 / --	6 / --
NATIONAL/NATIONAL	NATIONAL / --	NATIONAL / --	NATIONAL / --	NATIONAL / --	NATIONAL / --
YES / YES	NO / --	NO / --	NO / --	NO / --	NO / --
YES / YES	NO / --	NO / --	NO / --	NO / --	NO / --
YES	YES	YES	YES	YES	YES
19 X 12	14-3/4 X 10-3/4	15 X 10-1/2	15 X 10-1/2	10-1/2 X 6-1/2	14-1/2 X 8-3/4
3					
16 X 16	12 X 9	12-1/2 X 8-1/2	12-1/2 X 8-1/2	4-1/4 X 6-1/2	10-1/2 X 7-1/4
114	135	135	135	550	186
1040	850	850	850	1400	900
3:12	4:12	4:12	4:12	8:12	4:12
30 LB. FELT	30 LB. FELT	30 LB. FELT	30 LB. FELT	40 LB. FELT	30 LB. FELT
<3:12					N/A
2 PLY #30 FELT OR UPGRADE		NA	NA	NA	
X					
X					
CONCRETE / METAL					
NO					
EACH TILE					
1					
1987	1981	1996	1996	1981	1998
>3,000	450,000	N/A	N/A	26,000	N/A
X	--	--	--	--	--
NO	X	X	--	X	X
CORONA, CA					
800/736-6221	S. MATTHEWS 905/627-4035	S. MATTHEWS 905/627-4035	S. MATTHEWS 905/627-4035	S. MATTHEWS 905/627-4035	S. MATTHEWS 905/627-4035
800/736-6221	S. MATTHEWS 905/627-4035	S. MATTHEWS 905/627-4035	S. MATTHEWS 905/627-4035	S. MATTHEWS 905/627-4035	S. MATTHEWS 905/627-4035
X					

Clay Tile, Part 2: Technical Data

1.	COMPANY NAME	ALTUSA / CLAY FOREVER	ALTUSA / CLAY FOREVER
2.	PRODUCT NAME	ALTUSA S	BARREL
3.	COMPLIES WITH:		
3A.	ASTM C 1167-96, <i>Standard Specification for Clay Roof Tiles</i> (indicate type and grade, or NA)		
	Type I -- High profile tile	X	X
	Type II -- Low profile tile		
	Type III -- Other tile (e.g., flat)		
	Grade 1 -- Severe frost action	X	X
	Grade 2 -- Moderate frost action		
	Grade 3 -- Negligible frost action		
4.	FIRE/WIND/IMPACT RESISTANCE:		
	Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)		
	Wind resistance (indicate maximum wind speed allowable)		
	Impact resistance, UL 2218 (Class 1, 2, 3, or 4)		
5.	CODE ACCEPTANCE:		
	BOCA Evaluation Service, Inc. (report number)		
	ICBO Evaluation Service, Inc. (report number)		
	International Evaluation Service (report number)		
	SBCCI Public Safety Testing & Evaluation Service (report number)	9914	
	National Evaluation Service, Inc. (report number)		9914
	Other Agencies (agency & report identification number)	MIAMI-DADE, BROWARD COUNTY FLORIDA 00-0822-07 CHAPTER 34	MIAMI-DADE- BROWARD COUNTY FLORIDA 00-0822-07 CHAPTER 34
6.	SEE APPENDIX IF CHECKED		

NA=not applicable

Clay Tile, Part 2: Technical Data

DANIEL PLATT	DANIEL PLATT	GLADDING MCBEAN	GLADDING MCBEAN	GLADDING MCBEAN	GLADDING MCBEAN	GLADDING MCBEAN
TUNSTALL	HANDCRAFTED	PLACER INTERLOCKING	COTSWOLD	BERKELEY PAN & CORDOVA COVER	ITALIAN PAN & CORDOVA COVER	ITALIAN PAN & BERKELEY COVER
				X	X	
X	X	X	X			X
X	X	X	X			X
CLASS A	CLASS A	CLASS A	CLASS A	CLASS A	CLASS A	CLASS A
120	120					
CLASS 1	CLASS 1					
		4642	4642	4642	4642	4642
		LOS ANGELES REPORT 24997	LOS ANGELES REPORT 24997	LOS ANGELES REPORT 24997	LOS ANGELES REPORT 24997	LOS ANGELES REPORT 24997

Clay Tile, Part 2: Technical Data

1.	COMPANY NAME	GLADDING MCBEAN	GLADDING MCBEAN
2.	PRODUCT NAME	LINCOLN INTERLOCKING	SPANISH S-TILE
3.	COMPLIES WITH:		
3A.	ASTM C 1167-96, <i>Standard Specification for Clay Roof Tiles</i> (indicate type and grade, or NA)		
	Type I -- High profile tile		X
	Type II -- Low profile tile		
	Type III -- Other tile (e.g., flat)	X	
	Grade 1 -- Severe frost action	X	X
	Grade 2 -- Moderate frost action		
	Grade 3 -- Negligible frost action		
4.	FIRE/WIND/IMPACT RESISTANCE:		
	Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	CLASS A	CLASS A
	Wind resistance (indicate maximum wind speed allowable)		
	Impact resistance, UL 2218 (Class 1, 2, 3, or 4)		
5.	CODE ACCEPTANCE:		
	BOCA Evaluation Service, Inc. (report number)		
	ICBO Evaluation Service, Inc. (report number)	4642	4642
	International Evaluation Service (report number)		
	SBCCI Public Safety Testing & Evaluation Service (report number)		
	National Evaluation Service, Inc. (report number)		
	Other Agencies (agency & report identification number)	LOS ANGELES REPORT 24997	LOS ANGELES REPORT 24997
6.	SEE APPENDIX IF CHECKED		

NA=not applicable

Clay Tile, Part 2: Technical Data

GLADDING MCBEAN	GLADDING MCBEAN	GLADDING MCBEAN	IMERY TOITURE	IMERY TOITURE	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.
LINCOLN S-TILE	CORDOVA TAPERED CUSTOM	CORDOVA	HPO	ST. FOY	CELADON CERAMIC SLATE	AMERICANA
X	X	X				
			X			
				X	X	X
X	X	X	X	X	X	X
CLASS A	CLASS A	CLASS A				
4642	4642	4642			ER 4872	ER 4872
LOS ANGELES REPORT 24997	LOS ANGELES REPORT 24997	LOS ANGELES REPORT 24997			METRO-DADE COUNTY, FL 00-0426.02	METRO-DADE COUNTY, FL 00-0426.01

Clay Tile, Part 2: Technical Data

1.	COMPANY NAME	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.
2.	PRODUCT NAME	XL AMERICANA	ANTIQUE
3.	COMPLIES WITH:		
3A.	ASTM C 1167-96, <i>Standard Specification for Clay Roof Tiles</i> (indicate type and grade, or NA)		
	Type I -- High profile tile		
	Type II -- Low profile tile		
	Type III -- Other tile (e.g., flat)	X	X
	Grade 1 -- Severe frost action	X	X
	Grade 2 -- Moderate frost action		
	Grade 3 -- Negligible frost action		
4.	FIRE/WIND/IMPACT RESISTANCE:		
	Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)		
	Wind resistance (indicate maximum wind speed allowable)		
	Impact resistance, UL 2218 (Class 1, 2, 3, or 4)		
5.	CODE ACCEPTANCE:		
	BOCA Evaluation Service, Inc. (report number)		
	ICBO Evaluation Service, Inc. (report number)	ER 4872	ER 4872
	International Evaluation Service (report number)		
	SBCCI Public Safety Testing & Evaluation Service (report number)		
	National Evaluation Service, Inc. (report number)		
	Other Agencies (agency & report identification number)	METRO-DADE COUNTY, FL 00-0426.02	METRO-DADE COUNTY, FL 00-0426.01
6.	SEE APPENDIX IF CHECKED		

NA=not applicable

Clay Tile, Part 2: Technical Data

LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.
BRITTANY	CALAIS	CLASSIC	XL CLASSIC	COFFEYVILLE ENGLISH	COLONIAL	CONOSERA
X	X	X	X	X	X	X
X	X	X	X	X	X	X
ER 4872	ER 4872	ER 4872	ER 4872	ER 4872	ER 4872	ER 4872
METRO-DADE COUNTY, FL 00-0426.01	METRO-DADE COUNTY, FL 00-0426.01	METRO-DADE COUNTY, FL 00-0426.01	METRO-DADE COUNTY, FL 00-0426.02		METRO-DADE COUNTY, FL 00-0426.01	

Clay Tile, Part 2: Technical Data

1.	COMPANY NAME	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.
2.	PRODUCT NAME	CRUDE	18" CUBANA
3.	COMPLIES WITH:		
3A.	ASTM C 1167-96, <i>Standard Specification for Clay Roof Tiles</i> (indicate type and grade, or NA)		
	Type I -- High profile tile		X
	Type II -- Low profile tile		
	Type III -- Other tile (e.g., flat)	X	
	Grade 1 -- Severe frost action	X	X
	Grade 2 -- Moderate frost action		
	Grade 3 -- Negligible frost action		
4.	FIRE/WIND/IMPACT RESISTANCE:		
	Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)		
	Wind resistance (indicate maximum wind speed allowable)		
	Impact resistance, UL 2218 (Class 1, 2, 3, or 4)		
5.	CODE ACCEPTANCE:		
	BOCA Evaluation Service, Inc. (report number)		
	ICBO Evaluation Service, Inc. (report number)	ER 4872	ER 4872
	International Evaluation Service (report number)		
	SBCCI Public Safety Testing & Evaluation Service (report number)		
	National Evaluation Service, Inc. (report number)		
	Other Agencies (agency & report identification number)	METRO-DADE COUNTY, FL 00-0426.01	METRO-DADE COUNTY, FL 00-0426.04
6.	SEE APPENDIX IF CHECKED		

NA=not applicable

Clay Tile, Part 2: Technical Data

1.	COMPANY NAME	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.
2.	PRODUCT NAME	LANAI	XL LANAI
3.	COMPLIES WITH:		
3A.	ASTM C 1167-96, <i>Standard Specification for Clay Roof Tiles</i> (indicate type and grade, or NA)		
	Type I -- High profile tile		
	Type II -- Low profile tile		
	Type III -- Other tile (e.g., flat)	X	X
	Grade 1 -- Severe frost action	X	X
	Grade 2 -- Moderate frost action		
	Grade 3 -- Negligible frost action		
4.	FIRE/WIND/IMPACT RESISTANCE:		
	Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)		
	Wind resistance (indicate maximum wind speed allowable)		
	Impact resistance, UL 2218 (Class 1, 2, 3, or 4)		
5.	CODE ACCEPTANCE:		
	BOCA Evaluation Service, Inc. (report number)		
	ICBO Evaluation Service, Inc. (report number)	ER 4872	ER 4872
	International Evaluation Service (report number)		
	SBCCI Public Safety Testing & Evaluation Service (report number)		
	National Evaluation Service, Inc. (report number)		
	Other Agencies (agency & report identification number)	METRO-DADE COUNTY, FL 00-0426.01	METRO-DADE COUNTY, FL 00-0426.02
6.	SEE APPENDIX IF CHECKED		

NA=not applicable

Clay Tile, Part 2: Technical Data

LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.
LIGHTWEIGHT INTERLOCKING	STRAIGHT BARREL MISSION 14-1/4	STRAIGHT BARREL MISSION 18-3/8	16" TAPERED MISSION	PALM BEACH TAPERED MISSION	NORMAN	PROVINCIAL
	X	X	X	X		
X	X				X	X
X	X	X	X	X	X	X
ER 4872	ER 4872	ER 4872	ER 4872	ER 4872	ER 4872	ER 4872
	METRO-DADE COUNTY, FL 00-0426.04	METRO-DADE COUNTY, FL 00-0426.04	METRO-DADE COUNTY, FL 00-0426.04	METRO-DADE COUNTY, FL 00-0426.04	METRO-DADE COUNTY, FL 00-0426.01	METRO-DADE COUNTY, FL 00-0426.01

Clay Tile, Part 2: Technical Data

1.	COMPANY NAME	LUDOWICI ROOF TILE, INC.	LUDOWICI ROOF TILE, INC.
2.	PRODUCT NAME	ROMAN	16" STRAIGHT BARREL MISSION
3.	COMPLIES WITH:		
3A.	ASTM C 1167-96, <i>Standard Specification for Clay Roof Tiles</i> (indicate type and grade, or NA)		
	Type I -- High profile tile		X
	Type II -- Low profile tile		
	Type III -- Other tile (e.g., flat)	X	
	Grade 1 -- Severe frost action	X	X
	Grade 2 -- Moderate frost action		
	Grade 3 -- Negligible frost action		
4.	FIRE/WIND/IMPACT RESISTANCE:		
	Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)		
	Wind resistance (indicate maximum wind speed allowable)		
	Impact resistance, UL 2218 (Class 1, 2, 3, or 4)		
5.	CODE ACCEPTANCE:		
	BOCA Evaluation Service, Inc. (report number)		
	ICBO Evaluation Service, Inc. (report number)	ER 4872	ER 4872
	International Evaluation Service (report number)		
	SBCCI Public Safety Testing & Evaluation Service (report number)		
	National Evaluation Service, Inc. (report number)		
	Other Agencies (agency & report identification number)		METRO-DADE COUNTY, FL 00-0426.04
6.	SEE APPENDIX IF CHECKED		

NA=not applicable

Clay Tile, Part 2: Technical Data

1.	COMPANY NAME	MCA CLAY TILE	MCA CLAY TILE
2.	PRODUCT NAME	ONE-PIECE "S"	10" WIDE STRAIGHT BARREL (MISSION)
3.	COMPLIES WITH:		
3A.	ASTM C 1167-96, <i>Standard Specification for Clay Roof Tiles</i> (indicate type and grade, or NA)		
	Type I -- High profile tile	X	X
	Type II -- Low profile tile		
	Type III -- Other tile (e.g., flat)		
	Grade 1 -- Severe frost action	X	X
	Grade 2 -- Moderate frost action		
	Grade 3 -- Negligible frost action		
4.	FIRE/WIND/IMPACT RESISTANCE:		
	Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	CLASS A	CLASS A
	Wind resistance (indicate maximum wind speed allowable)	155	155
	Impact resistance, UL 2218 (Class 1, 2, 3, or 4)	N/A	N/A
5.	CODE ACCEPTANCE:		
	BOCA Evaluation Service, Inc. (report number)		
	ICBO Evaluation Service, Inc. (report number)	4202	4202
	International Evaluation Service (report number)		
	SBCCI Public Safety Testing & Evaluation Service (report number)		
	National Evaluation Service, Inc. (report number)		
	Other Agencies (agency & report identification number)	CITY OF LOS ANGELES: 24576 METRO-DADE COUNTY, FL 99-0212.07	CITY OF LOS ANGELES: 24576
6.	SEE APPENDIX IF CHECKED	X	X

NA=not applicable

Clay Tile, Part 2: Technical Data

MCA CLAY TILE	MCA CLAY TILE	MCA CLAY TILE	MCA CLAY TILE	MCA CLAY TILE	MCA CLAY TILE	MCA CLAY TILE
8" WIDE STRAIGHT MISSION	CORONA TAPERED MISSION	CLASSIC TAPERED MISSION	ROMAN TILE	MF 108 INTERLOCKING FLAT TILE	IMPROVED-S	ORIENTAL TILE
X	X	X	X		X	
						X
				X		
X	X	X	X	X	X	X
CLASS A	CLASS A	CLASS A	CLASS A	CLASS A	CLASS A	CLASS A
155	155	155	155	155	155	155
N/A	N/A	N/A	N/A	N/A	N/A	N/A
4202	4202	4202	4202	4202	4202	4202
CITY OF LOS ANGELES: 24576	CITY OF LOS ANGELES: 24576	CITY OF LOS ANGELES: 24576	CITY OF LOS ANGELES: 24576	CITY OF LOS ANGELES: 24576	CITY OF LOS ANGELES: 24576	CITY OF LOS ANGELES: 24576
X	X	X	X	X	X	X

Clay Tile, Part 2: Technical Data

1.	COMPANY NAME	MCA CLAY TILE	SANDTOFT ROOF TILES
2.	PRODUCT NAME	TURRET TILE	COUNTRY PAN TILE
3.	COMPLIES WITH:		
3A.	ASTM C 1167-96, <i>Standard Specification for Clay Roof Tiles</i> (indicate type and grade, or NA)		
	Type I -- High profile tile	X	X
	Type II -- Low profile tile		
	Type III -- Other tile (e.g., flat)		
	Grade 1 -- Severe frost action	X	X
	Grade 2 -- Moderate frost action		
	Grade 3 -- Negligible frost action		
4.	FIRE/WIND/IMPACT RESISTANCE:		
	Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	CLASS A	CLASS A
	Wind resistance (indicate maximum wind speed allowable)	155	120
	Impact resistance, UL 2218 (Class 1, 2, 3, or 4)	N/A	CLASS 1
5.	CODE ACCEPTANCE:		
	BOCA Evaluation Service, Inc. (report number)		
	ICBO Evaluation Service, Inc. (report number)	4202	
	International Evaluation Service (report number)		
	SBCCI Public Safety Testing & Evaluation Service (report number)		
	National Evaluation Service, Inc. (report number)		
	Other Agencies (agency & report identification number)	CITY OF LOS ANGELES: 24576	
6.	SEE APPENDIX IF CHECKED	X	

NA=not applicable

Clay Tile, Part 2: Technical Data

[illegible]

Concrete Tile, Part 1 - General Information

1.	COMPANY NAME	COLUMBIA CONCRETE PRODUCTS LTD.	COLUMBIA CONCRETE PRODCUTS LTD.	ENTEGRA SALES, INC.	ENTEGRA SALES, INC.
2.	PRODUCT NAME	DOUBLE ROMAN	LOW BARREL	ESTATE	SKANDIA
3.	TILE TYPE				
	"S" (SPANISH) MISSION BARREL				
	DOUBLE "S"			X	
	FLAT, SHINGLE- (SLATE-) SHAPE	X	X		X
	FLAT, SHAKE-SHAPE	X	X		X
	FLAT, RIBBED				X
4.	TILE DESCRIPTION				
	Textured (yes or no)	YES	YES	YES	YES
	Color Production (surface or through-color)	THROUGH-COLOR	THROUGH-COLOR	BOTH	BOTH
	Number Of Colors Available	8	8	300+	300+
	Color Availability (regional/national)	NATIONAL	NATIONAL	REGIONAL	REGIONAL
	Custom Colors/Blends AvailableE (yes/no)	YES	YES	YES	YES
5.	ACCESSORY TILES AVAILABLE [e.g., ridge, hip, starter] (yes/no)			YES	YES
6.	DIMENSIONS AND COVERAGE				
	Tile Dimensions (inches x inches)	17 X 12-3/8	17 X 12 3/8	13 X 16 1/2	13 X 16 1/2
	Minimum Headlap (inches)	3	3	2	2
	Exposure (inches)	14	14	14 1/2 X 12	14 1/2 X 12
	Pieces Per Roof Square	89	94	87	87
	Weight Per Roof Square (pounds)	1050	950	900	900
7.	SLOPE/UNDERLAYMENT RECOMMENDATIONS				
	Minimum Slope Recommended For Normal Application (inches per foot)	4:12	4:12	2:12	2:12
	Underlayment Recommended In Normal Application	SPACED SHEATHING	SPACED SHEATHING	30 - 90 LB.	30 - 90 LB.
	Minimum Slope Recommended For Speical Application (inches per foot)	4:12	4:12	2:12	2:12
	Underlayment Recommended In Special Application	PEEL & STICK	PEEL & STICK		
8A.	RECOMMENDED DECKS AND FASTENING REQUIREMENTS				
	DECK TYPES				
	Solid Sheathing	X	X	X	X
	Spaced Sheathing	X	X		
8B.	DECK MATERIAL				
	Plywood/Wood	X	X	X	X
	Oriented Strand Board	X	X		
	Waferboard				
	Other (specify)				
8C.	FASTENING REQUIREMENTS				
	1. Battens Required [at given slope(s), no, or NA]	ALL SLOPES	ALL SLOPES		
	a. Solid Sheathing	X	X		
	b. Spaced Sheathing	X	X		
	2. Nailing Requirements, Field Tiles	CODES & PITCH COUNT	CODES & PITCH COUNT		
	a. Solid/Spaced Sheathing With Battens [slope(s) or NA]				
	not required				
	each tile, alternate rows				
	each tile			X	X
	b. Solid/Spaced Sheathing Without Battens [slope(s) or NA]	N/A	N/A		
	not required				
	each tile, alternate rows				
	each tile				
9.	YEAR PRODUCT FIRST SOLD	1972	1972	1986	1986
10.	NUMBER OF SQUARES INSTALLED	>100,000	>100,000		
11.	DISTRIBUTION				
	Distributors (number handling product or no)				
	Direct (number of regional service locations or no)	2	2		
12.	MANUFACTURING PLANT LOCATION(S) (City, State)	SURREY, BC	SURREY, BC	INDIANTOWN, FL POMPANO, FL	INDIANTOWN, FL
13A.	FOR SALES INFORMATION, CONTACT	A. DOLAN 604/596-3388	A. DOLAN 604/596-3388	F. GALLIGAN 561/223-0005	F. GALLIGAN 561/223-0005
13B.	FOR TECHNICAL INFORMATION, CONTACT	A. DOLAN 604/596-3388	A. DOLAN 604/596-3388	G. DESIDERIO 561/223-0005	G. DESIDERIO 561/223-0005
14.	SEE APPENDIX IF CHECKED				

NA=not applicable

Concrete Tile, Part 1 - General Information

UNICRETE PRODUCTS LTD.	UNICRETE PRODUCTS LTD.	UNICRETE PRODUCTS LTD.	UNICRETE PRODUCTS LTD.	UNICRETE PRODUCTS LTD.	VANDE HEY-RALEIGH ARCHITECTURAL TILE	VANDE HEY-RALEIGH ARCHITECTURAL TILE
ESTATE TILE	ESTATE TILE LIGHTWEIGHT	SLATE TILE	SPLIT-SHAKE TILE	BAR TILE	HIGH BARREL SPANISH	FLAT TILE
					X	
X	X					X
		X				X
			X			X
				X		X
NO	NO	YES	YES	YES	YES	YES
THROUGH-COLOR	THROUGH-COLOR	THROUGH-COLOR	THROUGH-COLOR	THROUGH-COLOR	THROUGH-COLOR	THROUGH-COLOR
40	5	40	40	40	60	60
NATIONAL	NATIONAL	NATIONAL	NATIONAL	NATIONAL	60	60
YES		YES	YES	YES	YES	YES
YES	YES	YES	YES	YES	YES	YES
16 1/2 X 13	16 1/2 X 13	16 1/2 X 13	16 1/2 X 13	16 1/2 X 13	17 1/4 X 13	15 3/8 X 10 1/4
3	3	3	3	3	3	3
13 1/2	13 1/2	13 1/2	13 1/2	13 1/2	14 X 12	12 X 8
90	90	90	93	90	86	135
850	685	1050	1050	955	1,000	1,100
4:12	4:12	4:12	4:12	4:12	4:12	4:12
30-LB.	30-LB.	30-LB.	30-LB.	30-LB.	#43 FELT	#43 FELT
2:12	2:12	2:12	2:12	2:12	3:12	3:12
MEMBRANE	MEMBRANE	MEMBRANE	MEMBRANE	MEMBRANE	EPDM	EPDM
X	X	X	X	X	X	X
X	X	X	X	X		
X	X	X	X	X	X	X
X	X	X	X	X		
X	X	X	X	X		
LOCAL STANDARDS VARY	LOCAL STANDARDS VARY	LOCAL STANDARDS VARY	LOCAL STANDARDS VARY	LOCAL STANDARDS VARY	BATTENS X	BATTENS X
LOCAL STANDARDS VARY	LOCAL STANDARDS VARY	LOCAL STANDARDS VARY		LOCAL STANDARDS VARY		
					X	X
LOCAL STANDARDS VARY	LOCAL STANDARDS VARY	LOCAL STANDARDS VARY		LOCAL STANDARDS VARY		
					X	X
1978	2001	1984	1994	1984	1982	1972
					>50	>50
					>50	>50
CALGARY, ALBERTA CANADA	CALGARY, ALBERTA CANADA	CALGARY, ALBERTA CANADA	CALGARY, ALBERTA CANADA	CALGARY, ALBERTA CANADA	LITTLE CHUTE, WI	LITTLE CHUTE, WI
SALES DEPT. 403/279-8321	SALES DEPT. 403/279-8321	SALES DEPT. 403/279-8321	SALES DEPT. 403/279-8321	SALES DEPT. 403/279-8321	DON VANDE HEY 800/236-8453	DON VANDE HEY 800/236-8453
TECHNICAL DEPT. 403/279-8321	TECHNICAL DEPT. 403/279-8321	TECHNICAL DEPT. 403/279-8321	TECHNICAL DEPT. 403/279-8321	TECHNICAL DEPT. 403/279-8321	BOB VANDE HEY 800/236-8453	BOB VANDE HEY 800/236-8453

Concrete Tile, Part 1 - General Information

1.	COMPANY NAME	VANDE HEY-RALEIGH ARCHITECTURAL TILE	VANDE HEY-RALEIGH ARCHITECTURAL TILE
2.	PRODUCT NAME	DOUBLE ROMAN LIGHTWEIGHT	ENGLISH SHINGLE
3.	TILE TYPE		
	"S" (SPANISH) MISSION BARREL		
	DOUBLE "S"	X	
	FLAT, SHINGLE- (SLATE-) SHAPE		X
	FLAT, SHAKE-SHAPE		
	FLAT, RIBBED		
4.	TILE DESCRIPTION		
	Textured (yes or no)	NO	YES
	Color Production (surface or through-color)	THROUGH-COLOR	THROUGH-COLOR
	Number Of Colors Available	5	60
	Color Availability (regional/national)	5	60
	Custom Colors/Blends AvailableE (yes/no)	NO	YES
5.	ACCESSORY TILES AVAILABLE [e.g., ridge, hip, starter] (yes/no)	YES	YES
6.	DIMENSIONS AND COVERAGE		
	Tile Dimensions (inches x inches)	16 1/2 X 13	15 X 7 1/2
	Minimum Headlap (inches)	3	9
	Exposure (inches)	14 X 12	6 X 7 1/2
	Pieces Per Roof Square	92	315
	Weight Per Roof Square (pounds)	325	1,800
7.	SLOPE/UNDERLAYMENT RECOMMENDATIONS		
	Minimum Slope Recommended For Normal Application (inches per foot)	4:12	6:12
	Underlayment Recommended In Normal Application	#43 FELT	#43 FELT
	Minimum Slope Recommended For Speical Application (inches per foot)	3:12	3:12
	Underlayment Recommended In Special Application	EPDM	EPDM
8A.	RECOMMENDED DECKS AND FASTENING REQUIREMENTS		
	DECK TYPES		
	Solid Sheathing	X	X
	Spaced Sheathing		
8B.	DECK MATERIAL		
	Plywood/Wood	X	X
	Oriented Strand Board		
	Waferboard		
	Other (specify)		
8C.	FASTENING REQUIREMENTS		
	1. Battens Required [at given slope(s), no, or NA]	BATTENS	NO
	a. Solid Sheathing	X	X
	b. Spaced Sheathing		
	2. Nailing Requirements, Field Tiles		
	a. Solid/Spaced Sheathing With Battens [slope(s) or NA]		
	not required		
	each tile, alternate rows		
	each tile	X	X
	b. Solid/Spaced Sheathing Without Battens [slope(s) or NA]		
	not required		
	each tile, alternate rows		
	each tile	X	X
9.	YEAR PRODUCT FIRST SOLD	2000	1982
10.	NUMBER OF SQUARES INSTALLED		
11.	DISTRIBUTION		
	Distributors (number handling product or no)	>50	>50
	Direct (number of regional service locations or no)	>50	>50
12.	MANUFACTURING PLANT LOCATION(S) (City, State)	LITTLE CHUTE, WI	LITTLE CHUTE, WI
13A.	FOR SALES INFORMATION, CONTACT	DON VANDE HEY 800/236-8453	DON VANDE HEY 800/236-8453
13B.	FOR TECHNICAL INFORMATION, CONTACT	BOB VANDE HEY 800/236-8453	BOB VANDE HEY 800/236-8453
14.	SEE APPENDIX IF CHECKED		

NA=not applicable

Concrete Tile, Part 2: Technical Data

1.	COMPANY NAME	COLUMBIA ROOF TILE	COLUMBIA ROOF TILE
2.	PRODUCT NAME	DOUBLE ROMAN	LOW BARREL
3.	COMPLIES WITH:		
3A.	ASTM C 1492-01, <i>Standard Specification for Concrete Roof Tile</i> (indicate grade or NA)		
	Type I -- High profile tile		
	Type II -- Medium profile tile	X	X
	Type III -- Low profile tile	X	X
	Type IV -- Accessory tile	X	X
4.	FIRE/WIND/IMPACT RESISTANCE:		
	Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)		
	Wind resistance (indicate maximum wind speed allowable)		
	Impact resistance, UL 2218 (Class 1, 2, 3, or 4)		
5.	CODE ACCEPTANCE:		
	BOCA Evaluation Service, Inc. (report number)		
	ICBO Evaluation Service, Inc. (report number)	PENDING	PENDING
	International Evaluation Service (report number)		
	SBCCI Public Safety Testing & Evaluation Service (report number)		
	National Evaluation Service, Inc. (report number)		
	Other Agencies (agency & report identification number)	CSA A220.M91	CSA A220.M91
6.	SEE APPENDIX IF CHECKED		

NA=not applicable

Concrete Tile, Part 2: Technical Data

ENTEGRA SALES, INC.	ENTEGRA SALES, INC.	UNICRETE PRODUCTS LTD.	UNICRETE PRODUCTS LTD.	UNICRETE PRODUCTS LTD.	UNICRETE PRODUCTS LTD.	UNICRETE PRODUCTS LTD.
ESTATE	SKANDIA	ESTATE TILE	LIGHTWEIGHT ESTATE TILE	SLATE	SPLIT SHAKE	BAR TILE
		X	X	X	X	X
X		X	X	X	X	X
	X	X	X	X	X	X
		X	X	X	X	X
		CLASS A	CLASS A	CLASS A	CLASS A	CLASS A
140	140	125	125	125	125	125
9933	9933					
		CSA A.220.1.M91 CCMC 10091-L	CSA A.220.1.M91 CCMC 10091-L	CSA A.220.1.M91 CCMC 10091-L	CSA A.220.1.M91 CCMC 10091-L	CSA A.220.1.M91 CCMC 10091-L

Concrete Tile, Part 2: Technical Data

1.	COMPANY NAME	VANDE HEY- RALEIGH MANUFACTURING	VANDE HEY- RALEIGH MANUFACTURING
2.	PRODUCT NAME	HIGH BARREL SPANISH	FLAT TILE
3.	COMPLIES WITH:		
3A.	ASTM C 1492-01, <i>Standard Specification for Concrete Roof Tile</i> (indicate grade or NA)		
	Type I -- High profile tile	X	X
	Type II -- Medium profile tile	X	X
	Type III -- Low profile tile	X	X
	Type IV -- Accessory tile	X	X
4.	FIRE/WIND/IMPACT RESISTANCE:		
	Fire resistance, UL 790 or ASTM E 108 (Class A, B, or C)	CLASS A	CLASS A
	Wind resistance (indicate maximum wind speed allowable)	125	125
	Impact resistance, UL 2218 (Class 1, 2, 3, or 4)	CLASS 1	CLASS 1
5.	CODE ACCEPTANCE:		
	BOCA Evaluation Service, Inc. (report number)		
	ICBO Evaluation Service, Inc. (report number)	4907	4907
	International Evaluation Service (report number)		
	SBCCI Public Safety Testing & Evaluation Service (report number)		
	National Evaluation Service, Inc. (report number)		
	Other Agencies (agency & report identification number)	METROPOLITAN DADE COUNTY, FL 97-0506.03	METROPOLITAN DADE COUNTY, FL 97-0506.03
6.	SEE APPENDIX IF CHECKED		

NA=not applicable

Concrete Tile, Part 2: Technical Data

VANDE HEY- RALEIGH MANUFACTURING	VANDE HEY- RALEIGH MANUFACTURING
DOUBLE ROMAN LIGHTWEIGHT	ENGLISH SHINGLE
X	X
X	X
X	X
X	X
CLASS A	CLASS A
125	125
CLASS 1	CLASS 1
4907	4907
METROPOLITAN DADE COUNTY, FL 97-0506.03	METROPOLITAN DADE COUNTY, FL 97-0506.03

Appendix

CLAY/CONCRETE TILE

Altusa/Clay Forever

Ring shank nails, hurricane spikes or stainless steel screws are recommended for plywood/wood, oriented strand board or waferboard deck material.

Daniel Platt Ltd.

A range of English style shingle tiles, Triton smooth machine finished or handcrafted which are irregular and distressed.

A full range of fittings available such as valley tiles and Arris style hip tiles. These tiles can be laid directly to the deck or on a double batten system. Custom sizes and finishes available.

Imerys Toiture

A range of pressed clay roofing tiles, with deep side and headlocks for maximum weather protection. Tiles can be laid directly to the deck or on a double batten system. The St. Foy machine made shingle tile offers a weathered and aged appearance.

Ludowici Roof Tile, Inc.

A large range of standard tiles and historical patterns are available in a variety of surface finishes, in 47 colors. Ludowici also has custom color matching capabilities for all tiles and trim items produced. All tile patterns and styles are available with trim fittings for nearly every roof configuration.

All tiles are impervious to freeze-thaw cycles, heat, moisture, efflorescence, and meet or exceed ASTM C 1167-96, Grade 1, and most have Metro-Dade County and ICBO approvals. The tiles have an average of 1% or less water absorption.

Ludowici's design department specializes in conical roof application developed specifically per each individual roof.

M.C.A. Clay Roof Tile

M.C.A. Clay Roof Tile produce "Energy Star" products. All tiles manufactured by M.C.A. have an ASTM Grade 1 rating and are available in a wide variety of flashed, glazed, custom and blended colors. Oriental tile is a low-profile tiles. Turret Tile are custom-sized barrel tile that graduate in size to fit any size and pitch of turret. The manufacturer designs each system according to the individual turret roof or fan-shaped application. All products are approved by ICBO Research No. 4202.

Sandtoft Roof Tiles Ltd.

England's largest independent clay tile manufacturer. New profiles available, all pressed with side and headlocks for maximum weather protection and fast installation.

The Goxhill handmade shingle tile replicates the Tudor/Elizabethan look.

All tiles can be laid directly to the deck but a double batten system is always recommended.

TBF

France's largest clay tile manufacturer. All tiles are pressed, with deep side and headlocks for maximum weather protection.

Weathered color blends available, premixed in the pallet with a vast range of fittings.

Although tiles can be laid directly to the deck, a double batten system is recommended.

Tuilerie de Pontigny Aleonard

Shingle style clay tiles, hand finished in the old fashioned French way, Patrimony tiles are available in a three size, three color blend for the instant old "Country Cottage" look.

Monument Historique tile is available in up to 5 sizes all with an aged weathered look. All tiles are best installed on a double batten system. Custom fittings as well as turret tiles are available.

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Section 4 - Metal Panels

Information on Section 4: Metal Panels

General Information

Section 4: Metal Panels in NRCA's *2002-03 Steep-slope Roofing Materials Guide* is a comprehensive listing of metal panel products commonly used in steep-slope roofing.

Metal Panel roof systems are traditionally divided into two categories: structural metal panels and architectural metal panels. Generally, structural metal panel roof systems are installed on low-slope roofs, that is roofs with slopes less than 3:12 (14 degrees). Architectural metal panel roof systems are generally installed on steep-slope roof systems, that is roofs with slopes of 3:12 (14 degrees) or greater. Structural metal panel roof systems can support structural loads without being applied over separate roof decks. Architectural metal panel roof systems are applied over structural roof decks that resist structural loads.

Information on metal panel roof systems, both structural metal panels and architectural metal panels, used in steep-slope roof assemblies is contained in the guide.

Specific Information Included in the Guide

Specific listing information for metal panel products is as follows:

1. Company name
2. Product name
3. Configuration
4. System recommendations
5. Panel configuration
6. Individual component configuration
7. Manufacturer/product data
8. ASTM Standards/FM/UL

Additional information regarding metal panel roof systems is provided in *The NRCA Roofing and Waterproofing Manual*.

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Index to Metal Panels

Metal Panels	
ATAS INTERNATIONAL INC. 6612 Snowdrift Road Allentown, PA 18106 610/395-8445 FAX: 610/395-9342 E-mail: info@atas.com Web:	164
BERRIDGE MANUFACTURING CO. 1720 Maury Street Houston, TX 77026 713/223-4971 FAX: 713/236-9422 E-mail: sales@berridge.com Web:	168
CLASSIC PRODUCTS, INC. P.O. Box 701 Piqua, OH 45356 800/543-8938 FAX: 937/773-9261 E-mail: info@classicroof.com Web:	171
DECRA ROOFING SYSTEM/ TASMAN ROOFING PRODUCTS 1230 Railroad Street Corona, CA 92882 909/272-8180 FAX: 909/272-4476 E-mail: marketing@tasmanrft.com Web: www.decra.com	173
MBCI P.O. Box 17217 Houston, TX 77238 281/445-8555 FAX: 281/445-1791 E-mail: Web: www.mbc.com	174
MCELROY METAL CO. 1500 Hamilton Road Bossier City, LA 71111 318/747-8000 FAX: 318/747-8029 E-mail: marketing@mcelroymetal.com Web: www.mcelroymetal.com	175
METAL SALES MFG. GROUP 7800 Satter Road 60 Sellersburg, IN 47172 812/246-0819 FAX: 812/246-0829 E-mail: Web: www.mtllsales.com	178

Metal Panels	
MET-TILE INC. 1745 Monticello Court Ontario, CA 91761 909/947-0311 FAX: 909/947-1510 E-mail: met-tile@met-tile.com Web: www.met-tile.com	181
OWENS CORNING One Owens Corning Parkway Toledo, OH 43659 419/248-8000 FAX 419/248-7354 E-mail: Web: www.owenscorning.com	181
PERFECTION, THE VERY BEST IN BUILDING PRODUCTS P.O. Box 1524 Piqua, OH 45356 888/788-2427 or 937/778-5117 FAX: 937/778-5116 E-mail: info@perfectionusa.com	182
PETERSEN ALUMINUM CORP. 1005 Tonne Road Elk Grove, IL 60007 800/323-1960 FAX: 800/722-7150 E-mail: Web: www.pac-clad.com	183
SPRINGHOUSE INC. 97 Thames Road, East Exeter, ON CANADA N0M 1S3 519/235-1566 FAX: 519/235-2852 E-mail:	187
VINCENT METAL GOODS 455 85th Avenue NW P.O. Box 360 Minneapolis, MN 55433 763/717-9000 FAX: 763/717-7184 E-mail: rick.oehme@vmgoods.com	188

Metal Panels

1.	COMPANY NAME	ATAS INTERNATIONAL INC.	
2.	PRODUCT NAME	PC SNAP-ON SEAM	
3.	CONFIGURATION		
3.1	STYLE		
	Simulated Shingle (specific type if applicable)		
	Simulated Shake (specific type if applicable)		
	Simulated Slate (specific type if applicable)		
	Simulated Tile (specific type if applicable)		
	Other (specify type)	SNAP-ON SEAM/BATTEN	
3.2	COMPONENT TYPE AND SIZE		
	Panel [width (in.), maximum length (ft.)]	15-1/4 X 65	
	Individual (dimensions: inches x inches)		
3.3	MATERIALS, THICKNESSES, AND FINISHES		
	GALVANIZED STEEL (ga.):	Thicknesses	22, 24
		Finishes	KYNAR 500
	STAINLESS STEEL (ga.)	Thicknesses	
		Finishes	
	GALVALUME (ga.)	Thicknesses	24
		Finishes	MILL
	ALUMINIZED STEEL (ga.)	Thicknesses	
		Finishes	
	ALUMINUM (in.)	Thicknesses	0.032, 0.040, 0.050
		Finishes	KYNAR 500
	COPPER (oz.)	Thicknesses	16, 20
		Finishes	MILL
	TERNE METAL (ga.)	Thicknesses	
		Finishes	
	ZINC (ga.)	Thicknesses	
		Finishes	
4.	SYSTEMS RECOMMENDATIONS		
	Min. Slope Recommended In Normal Application (in. per ft.)	3:12	
	Min. Slope Recommended In Special Application (in. per ft.)		
	DECK TYPES*		
	Solid Deck, Wood	X	
	Spaced Sheathing, Wood		
	Decking Not Required		
	Underlayment Recommended (type or NA)	30 LB. FELT	
5.	PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)		
5.1	INTERLOCKING METHOD, HEIGHT (inches), AND SEAM SEALANT	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	
	Overlapped		
	Interlocked		
	Slip Locked		
	Snap Together	1	
5.2	FASTENING METHOD		
	Through Fastened (exposed or concealed, specify)		
	Clip (exposed or concealed, specify)	CONCEALED	
6.	INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)		
6.1	DIMENSIONS		
	Weight Per Roof Square (pounds)	145 (24 GA.)	
	Exposure (inches)		
	Coverage (approx. no. of pieces per square at listed exposure)		
6.2	INSTALLATION PROCESSING		
	Through-Fastened (exposed or concealed, specify)		
	Kind(s) Of Fastener Required (nails, staples, screws, NA)		
	Number Of Fasteners Per Piece (number or NA)		
	Seam Snap-In Or Interlock (specify or NA)	SNAP 1"	
	Adhesive/Sealant Required (yes/no)	NO	
	Support Battens Required (yes/no)	NO	
7.	MANUFACTURER/PRODUCT DATA		
	Year Product First Sold	1979	
	Number of Squares Installed	>500,000	
	Method Of Distribution (distributors, direct)	DISTRIBUTORS	
	Number Of Regional Service Locations	3	
	Licensed Applicator Agreement (yes/no)	NO	
		For Sales Information, Contact	J. BUSH 610/395-8445
		For Technical Information, Contact	J. BUSH 610/395-8445
8.	ASTM E331, Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)		
	ASTM E1646, Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference (results or none)		
	ASTM E283, Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Difference Across the Specimen (results or none)		
	ASTM E1680, Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems (results or none)		
	ASTM E 330, Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)		
	ASTM E 1592, Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference (results or none)		
	FM 4471, Approval Standard for Class 1 Panel Roofs (results or none)		
	UL 580, Test for Uplift Resistance of Roof Assemblies (results or none)	CLASS 90	
	UL 1897, Uplift Test For Roof Covering Systems (results or none)		
9.	SEE APPENDIX IF CHECKED	X	

NA=not applicable

Metal Panels

ATAS INTERNATIONAL INC.	ATAS INTERNATIONAL INC.	ATAS INTERNATIONAL INC.	ATAS INTERNATIONAL INC.
TECHO TILE	DUTCH SEAM MRD	MONARCH ROOF MRB	ADVANTA SHINGLE
			X
SPANISH	STANDING SEAM	BATTEN SEAM	
39 X 25	11, 15, 19-1/4 X 65	12, 16 X 65	12 X 26
24 KYNAR 500	24, 22 KYNAR 500	24, 22 KYNAR 500	29 KYNAR 500
	24 NUKK	24 MILL	
0.032 KYNAR 500	0.032, 0.040 KYNAR 500	0.032, 0.40 KYNAR 500	
	16 MILL	16, 20 MILL	
3:12	2:12	2:12	3:12
	2:12	2:12	3:12
X	X	X	X
X	X	X	
	X	X	
30 LB. FELT	30 LB. FELT	30 LB. FELT	30 LB. FELT
HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)
	1-1/2	2 /	X
	CONCEALED	CONCEALED	CONCEALED
145 (24 GA.)	145 (24 GA.)	145 (24 GA.)	80
			12 X 36
			33
EXPOSED SCREWS			NAILS
	INTERLOCK	INTERLOCK	5
NO	NO	NO	NO
NO	NO	NO	NO
1992	1991	1979	1999
>200,000	>500,000	>250,000	> 100,000
DISTRIBUTORES	DISTRIBUTORS	DISTRIBUTORS	DISTRIBUTORS
3	3	3	3
NO	NO	NO	YES
J. BUSH 610/395-8445	J. BUSH 610/395-8445	J. BUSH 610/395-8445	J. BUSH 610/395-8445
J. BUSH 610/395-8445	J. BUSH 610/395-8445	J. BUSH 610/395-8445	J. BUSH 610/395-8445
	NO LEAKAGE @ 12 PSF (69 MPH)	--	
	0.08 CFM PER SQ. FT @ 1.57 PSF (25 MPH)	0.13 CFM PER SQ FT @ 4.00 PSF	
	CONSULT FACTORY		
	CLASS 90	CLASS 90	
			CONSULT FACTORY
X	X	X	X

Metal Panels

1.	COMPANY NAME	ATAS INTERNATIONAL INC.	
2.	PRODUCT NAME	SCANROOF	
3.	CONFIGURATION		
3.1	STYLE		
	Simulated Shingle (specific type if applicable)		
	Simulated Shake (specific type if applicable)		
	Simulated Slate (specific type if applicable)		
	Simulated Tile (specific type if applicable)	SCANDINAVIAN	
	Other (specify type)		
3.2	COMPONENT TYPE AND SIZE		
	Panel [width (in.), maximum length (ft.)]	16-1/2 X 13 -10	
	Individual (dimensions: inches x inches)		
3.3	MATERIALS, THICKNESSES, AND FINISHES		
	GALVANIZED STEEL (ga.):	Thicknesses	24
		Finishes	KYNAR 500
	STAINLESS STEEL (ga.)	Thicknesses	
		Finishes	
	GALVALUME (ga.)	Thicknesses	
		Finishes	
	ALUMINIZED STEEL (ga.)	Thicknesses	
		Finishes	
	ALUMINUM (in.)	Thicknesses	
		Finishes	
	COPPER (oz.)	Thicknesses	
		Finishes	
	TERNE METAL (ga.)	Thicknesses	
		Finishes	
	ZINC (ga.)	Thicknesses	
		Finishes	
4.	SYSTEMS RECOMMENDATIONS		
	Min. Slope Recommended In Normal Application (in. per ft.)	3:12	
	Min. Slope Recommended In Special Application (in. per ft.)	2:12	
	DECK TYPES*		
	Solid Deck, Wood	X	
	Spaced Sheathing, Wood		
	Decking Not Required	X	
	Underlayment Recommended (type or NA)	30 LB. FELT	
5.	PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)		
5.1	INTERLOCKING METHOD, HEIGHT (inches), AND SEAM SEALANT	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	
	Overlapped		
	Interlocked		
	Slip Locked		
	Snap Together		
5.2	FASTENING METHOD		
	Through Fastened (exposed or concealed, specify)		
	Clip (exposed or concealed, specify)	EXPOSED AND CONCEALED	
6.	INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)		
6.1	DIMENSIONS		
	Weight Per Roof Square (pounds)		
	Exposure (inches)		
	Coverage (approx. no. of pieces per square at listed exposure)		
6.2	INSTALLATION PROCESSING		
	Through-Fastened (exposed or concealed, specify)		
	Kind(s) Of Fastener Required (nails, staples, screws, NA)		
	Number Of Fasteners Per Piece (number or NA)		
	Seam Snap-In Or Interlock (specify or NA)		
	Adhesive/Sealant Required (yes/no)		
	Support Battens Required (yes/no)		
7.	MANUFACTURER/PRODUCT DATA		
	Year Product First Sold	1980	
	Number of Squares Installed	>250,000	
	Method Of Distribution (distributors, direct)	DISTRIBUTORS	
	Number Of Regional Service Locations	3	
	Licensed Applicator Agreement (yes/no)	NO	
	For Sales Information, Contact	J. BUSH 610/395-8445	
	For Technical Information, Contact	J. BUSH 610/395-8445	
8.	ASTM E331, Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)		
	ASTM E1646, Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference (results or none)		
	ASTM E283, Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Difference Across the Specimen (results or none)		
	ASTM E1680, Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems (results or none)		
	ASTM E 330, Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)		
	ASTM E 1592, Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference (results or none)		
	FM 4471, Approval Standard for Class 1 Panel Roofs (results or none)		
	UL 580, Test for Uplift Resistance of Roof Assemblies (results or none)	CLASS 90	
	UL 1897, Uplift Test For Roof Covering Systems (results or none)		
9.	SEE APPENDIX IF CHECKED	X	

NA=not applicable

Metal Panels

ATAS INTERNATIONAL INC.	ATAS INTERNATIONAL INC.	ATAS INTERNATIONAL INC.	ATAS INTERNATIONAL INC.
GRANUTILE	PERMA SHAKE	STANDING SEAM SHINGLE	CASTLE TOP
	HAND SPLIT		
TILE		STANDING SEAM	DIAMOND
44 X 16	10 X 60	16 X 60	16 X 16
26 STONE COATED	29 KYNAR 500	29 KYNAR 500	
			0.032 KYNAR 500
		16 MILL	16 MILL
			0.028 QUARTZ
3:12	3:12	3:12	3:12
3:12	3:12	3:12	3:12
X	X	X	X
X			
30 LB. FELT	30 LB. FELT	30 LB. FELT	30 LB. FELT
HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)
EXPOSED	CONCEALED CONCEALED	CONCEALED CONCEALED	EXPOSED
145	80	80	145
SCREWS	SCREWS	SCREWS	SCREWS
YES	NO	NO	YES
1994	1995	1995	1995
> 100,000	> 100,000	>200,000	>250,000
DISTRIBUTORS	DISTRIBUTORS	DISTRIBUTORS	DISTRIBUTORS
3	3	3	3
NO	NO	NO	NO
J. BUSH 610/395-8445	J. BUSH 610/395-8445	J. BUSH 610/395-8445	J. BUSH 610/395-8445
J. BUSH 610/395-8445	J. BUSH 610/395-8445	J. BUSH 610/395-8445	J. BUSH 610/395-8445
		NONE	
		NONE	
X	X	X	X

Metal Panels

1.	COMPANY NAME	BERRIDGE MANUFACTURING CO	
2.	PRODUCT NAME	BERMUDA ROOF PANEL	
3.	CONFIGURATION		
3.1	STYLE		
	Simulated Shingle (specific type if applicable)		
	Simulated Shake (specific type if applicable)		
	Simulated Slate (specific type if applicable)		
	Simulated Tile (specific type if applicable)		
	Other (specify type)	"BERMUDA" STYLE HORIZONTAL PLANK	
3.2	COMPONENT TYPE AND SIZE		
	Panel [width (in.), maximum length (ft.)]	11 X UNLIMITED	
	Individual (dimensions: inches x inches)		
3.3	MATERIALS, THICKNESSES, AND FINISHES		
	GALVANIZED STEEL (ga.):	Thicknesses	24
		Finishes	KYNAR 500, HYLAR 5000
	STAINLESS STEEL (ga.)	Thicknesses	
		Finishes	
	GALVALUME (ga.)	Thicknesses	24
		Finishes	KYNAR 500, HYLAR 5000
	ALUMINIZED STEEL (ga.)	Thicknesses	24
		Finishes	
	ALUMINUM (in.)	Thicknesses	
		Finishes	
	COPPER (oz.)	Thicknesses	16
		Finishes	
	TERNE METAL (ga.)	Thicknesses	
		Finishes	
	ZINC (ga.)	Thicknesses	
		Finishes	
4.	SYSTEMS RECOMMENDATIONS		
	Min. Slope Recommended In Normal Application (in. per ft.)	3:12	
	Min. Slope Recommended In Special Application (in. per ft.)		
	DECK TYPES*		
	Solid Deck, Wood	X	
	Spaced Sheathing, Wood	X	
	Decking Not Required	X	
	Underlayment Recommended (type or NA)	30 LB. FELT	
5.	PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)		
5.1	INTERLOCKING METHOD, HEIGHT (inches), AND SEAM SEALANT	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	
	Overlapped		
	Interlocked		
	Slip Locked	1 / F	
	Snap Together		
5.2	FASTENING METHOD		
	Through Fastened (exposed or concealed, specify)		
	Clip (exposed or concealed, specify)	CONCEALED	
6.	INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)		
6.1	DIMENSIONS		
	Weight Per Roof Square (pounds)		
	Exposure (inches)		
	Coverage (approx. no. of pieces per square at listed exposure)		
6.2	INSTALLATION PROCESSING		
	Through-Fastened (exposed or concealed, specify)		
	Kind(s) Of Fastener Required (nails, staples, screws, NA)		
	Number Of Fasteners Per Piece (number or NA)		
	Seam Snap-In Or Interlock (specify or NA)		
	Adhesive/Sealant Required (yes/no)		
	Support Battens Required (yes/no)		
7.	MANUFACTURER/PRODUCT DATA		
	Year Product First Sold	1992	
	Number of Squares Installed	> 10,000	
	Method Of Distribution (distributors, direct)	DISTRIBUTORS, DIRECT	
	Number Of Regional Service Locations	7	
	Licensed Applicator Agreement (yes/no)	YES	
	For Sales Information, Contact	D. DOYLE 800/231-8127	
	For Technical Information, Contact	B. MARKS 800/231-8127	
8.	ASTM E331, Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)	NONE	
	ASTM E1646, Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference (results or none)		
	ASTM E283, Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Difference Across the Specimen (results or none)	NONE	
	ASTM E1680, Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems (results or none)		
	ASTM E 330, Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)		
	ASTM E 1592, Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference (results or none)		
	FM 4471, Approval Standard for Class 1 Panel Roofs (results or none)		
	UL 580, Test for Uplift Resistance of Roof Assemblies (results or none)		
	UL 1897, Uplift Test For Roof Covering Systems (results or none)		
9.	SEE APPENDIX IF CHECKED	X	

NA=not applicable

Metal Panels

[illegible]

Metal Panels

1.	COMPANY NAME	BERRIDGE MANUFACTURING CO.	
2.	PRODUCT NAME	S-TILE	
3	CONFIGURATION		
3.1	STYLE		
	Simulated Shingle (specific type if applicable)		
	Simulated Shake (specific type if applicable)		
	Simulated Slate (specific type if applicable)		
	Simulated Tile (specific type if applicable)	S-TILE	
	Other (specify type)		
3.2	COMPONENT TYPE AND SIZE		
	Panel [width (in.), maximum length (ft.)]	32-11/16 X 40	
	Individual (dimensions: inches x inches)		
3.3	MATERIALS, THICKNESSES, AND FINISHES		
	GALVANIZED STEEL (ga.):	Thicknesses	24
		Finishes	KYNAR 500, HYLAR 5000
	STAINLESS STEEL (ga.)	Thicknesses	
		Finishes	
	GALVALUME (ga.)	Thicknesses	24
		Finishes	KYNAR 500, HYLAR 5000
	ALUMINIZED STEEL (ga.)	Thicknesses	
		Finishes	
	ALUMINUM (in.)	Thicknesses	
		Finishes	
	COPPER (oz.)	Thicknesses	
		Finishes	
	TERNE METAL (ga.)	Thicknesses	
		Finishes	
	ZINC (ga.)	Thicknesses	
		Finishes	
4.	SYSTEMS RECOMMENDATIONS		
	Min. Slope Recommended In Normal Application (in. per ft.)	3:12	
	Min. Slope Recommended In Special Application (in. per ft.)		
	DECK TYPES*		
	Solid Deck, Wood	X	
	Spaced Sheathing, Wood	X	
	Decking Not Required	X	
	Underlayment Recommended (type or NA)	30 LB. FELT	
5.	PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)		
5.1	INTERLOCKING METHOD, HEIGHT (inches), AND SEAM SEALANT	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	
	Overlapped	1-1/2 / E	
	Interlocked		
	Slip Locked		
	Snap Together		
5.2	FASTENING METHOD		
	Through Fastened (exposed or concealed, specify)	EXPOSED	
	Clip (exposed or concealed, specify)		
6.	INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)		
6.1	DIMENSIONS		
	Weight Per Roof Square (pounds)		
	Exposure (inches)		
	Coverage (approx. no. of pieces per square at listed exposure)		
6.2	INSTALLATION PROCESSING		
	Through-Fastened (exposed or concealed, specify)		
	Kind(s) Of Fastener Required (nails, staples, screws, NA)		
	Number Of Fasteners Per Piece (number or NA)		
	Seam Snap-In Or Interlock (specify or NA)		
	Adhesive/Sealant Required (yes/no)		
	Support Battens Required (yes/no)		
7.	MANUFACTURER/PRODUCT DATA		
	Year Product First Sold	1993	
	Number of Squares Installed	--	
	Method Of Distribution (distributors, direct)	DISTRIBUTORS, DIRECT	
	Number Of Regional Service Locations	7	
	Licensed Applicator Agreement (yes/no)	YES	
	For Sales Information, Contact	D. DOYLE 800/231-8127	
	For Technical Information, Contact	B. MARKS 800/231-8127	
8.	ASTM E331, Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)	NONE	
	ASTM E1646, Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference (results or none)		
	ASTM E283, Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Difference Across the Specimen (results or none)	NONE	
	ASTM E1680, Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems (results or none)		
	ASTM E 330, Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)		
	ASTM E 1592, Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference (results or none)		
	FM 4471, Approval Standard for Class 1 Panel Roofs (results or none)		
	UL 580, Test for Uplift Resistance of Roof Assemblies (results or none)		
	UL 1897, Uplift Test For Roof Covering Systems (results or none)		
9.	SEE APPENDIX IF CHECKED		

NA=not applicable

Metal Panels

CLASSIC PRODUCTS, INC.	CLASSIC PRODUCTS, INC.	CLASSIC PRODUCTS, INC.	CLASSIC PRODUCTS, INC.
RUSTIC SHINGLE	REGAL CREST	CHATEAU SLATE	TIMBERCREEK SHAKE
X	X	X	X
12 X 24	12 X 36	8 X 12	12 X 48
		28 KYNAR	26 THERMO BOND KYNAR
0.019 KYNAR / HYLAR	0.019 KYNAR / HYLAR	0.019, 0.032 KYNAR / HYNAR 12	
3:12	3:12	3:12	3:12
3:12	3:12	3:12	3:12
X	X		X
30 LB. FELT	30 LB. FELT	30 LB. FELT	30 LB. FELT
HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)
40	38	45 ALUMINUM; 105 STEEL, COPPER	105
12 X 24	12 X 36	8 X 12	12 X 48
50	33	132	25
CONCEALED CLIPS	CONCEALED CLIPS	CONCEALED	CONCEALED CLIPS
NAILS	NAILS	NAILS	NAILS
2	3	2	4
INTERLOCK	INTERLOCK	INTERLOCK	INTERLOCK
NO	NO	NO	NO
NO	NO	NO	NO
1960	1964	1992	2000
> 1,000,000	>750,000	10,000	4000
DISTRIBUTORS	DISTRIBUTORS	DISTRIBUTORS	DISTRIBUTORS
--	--	--	
NO	NO	NO	NO
J. KNIFE 800/543-8938	J. KNIFE 800/543-8938	J. KNIFE 800/543-8938	J. KNIFE 800/543-8938
E. VORESS 800/543-8939	E. VORESS 800/543-8939	E. VORESS 800/543-8939	E. VORESS 800/543-8939
NONE	NONE	NONE	NONE
NONE	NONE	NONE	NONE
NONE	NONE	NONE	NONE
NONE	NONE	NONE	NONE
NONE	NONE	NONE	NONE
NONE	NONE	NONE	NONE
NONE	NONE	NONE	NONE
90 PSF	NONE	NONE	90 PSF
NONE	NONE	NONE	NONE

Metal Panels

1.	COMPANY NAME	CLASSIC PRODUCTS, INC.	
2.	PRODUCT NAME	OXFORD SHINGLE	
3	CONFIGURATION		
3.1	STYLE		
	Simulated Shingle (specific type if applicable)	X	
	Simulated Shake (specific type if applicable)		
	Simulated Slate (specific type if applicable)		
	Simulated Tile (specific type if applicable)		
	Other (specify type)		
3.2	COMPONENT TYPE AND SIZE		
	Panel [width (in.), maximum length (ft.)]		
	Individual (dimensions: inches x inches)	12 X 60	
3.3	MATERIALS, THICKNESSES, AND FINISHES		
	GALVANIZED STEEL (ga.):	Thicknesses	
		Finishes	
	STAINLESS STEEL (ga.)	Thicknesses	
		Finishes	
	GALVALUME (ga.)	Thicknesses	
		Finishes	
	ALUMINIZED STEEL (ga.)	Thicknesses	
		Finishes	
	ALUMINUM (in.)	Thicknesses	0.024
		Finishes	KYNAR 500 / HYLAR 500
	COPPER (oz.)	Thicknesses	
		Finishes	
	TERNE METAL (ga.)	Thicknesses	
		Finishes	
	ZINC (ga.)	Thicknesses	
		Finishes	
4.	SYSTEMS RECOMMENDATIONS		
	Min. Slope Recommended In Normal Application (in. per ft.)	3:12	
	Min. Slope Recommended In Special Application (in. per ft.)	3:12	
	DECK TYPES*		
	Solid Deck, Wood	X	
	Spaced Sheathing, Wood		
	Decking Not Required		
	Underlayment Recommended (type or NA)	30 LB. FELT	
5.	PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)		
5.1	INTERLOCKING METHOD, HEIGHT (inches), AND SEAM SEALANT	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	
	Overlapped		
	Interlocked		
	Slip Locked		
	Snap Together		
5.2	FASTENING METHOD		
	Through Fastened (exposed or concealed, specify)		
	Clip (exposed or concealed, specify)		
6.	INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)		
6.1	DIMENSIONS		
	Weight Per Roof Square (pounds)	46	
	Exposure (inches)	12 X 60	
	Coverage (approx. no. of pieces per square at listed exposure)	20	
6.2	INSTALLATION PROCESSING		
	Through-Fastened (exposed or concealed, specify)	CONCEALED CLIPS	
	Kind(s) Of Fastener Required (nails, staples, screws, NA)	NAILS	
	Number Of Fasteners Per Piece (number or NA)	5	
	Seam Snap-In Or Interlock (specify or NA)	INTERLOCK	
	Adhesive/Sealant Required (yes/no)	NO	
	Support Battens Required (yes/no)	NO	
7.	MANUFACTURER/PRODUCT DATA		
	Year Product First Sold	2001	
	Number of Squares Installed	2000	
	Method Of Distribution (distributors, direct)	DISTRIBUTORS	
	Number Of Regional Service Locations		
	Licensed Applicator Agreement (yes/no)	NO	
		For Sales Information, Contact	J. KNIFE 800/543-8938
		For Technical Information, Contact	E. VORESS 800/543-8939
8.	ASTM E331, Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)	NONE	
	ASTM E1646, Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference (results or none)	NONE	
	ASTM E283, Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Difference Across the Specimen (results or none)	NONE	
	ASTM E1680, Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems (results or none)	NONE	
	ASTM E 330, Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)	NONE	
	ASTM E 1592, Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference (results or none)	NONE	
	FM 4471, Approval Standard for Class 1 Panel Roofs (results or none)	NONE	
	UL 580, Test for Uplift Resistance of Roof Assemblies (results or none)	NONE	
	UL 1897, Uplift Test For Roof Covering Systems (results or none)	NONE	
9.	SEE APPENDIX IF CHECKED		

NA=not applicable

Metal Panels

DECRA ROOFING SYSTEMS/TASMAN ROOFING	DECRA ROOFING SYSTEMS/TASMAN ROOFING	DECRA ROOFING SYSTEMS/TASMAN ROOFING	DECRA ROOFING SYSTEMS/TASMAN ROOFING
DECRA TILE	DECRA SHAKE	DECRA SHINGLE PLUS	DECRA SHINGLE
	HAND SPLIT SHAKE	ARCHITECTURAL SHINGLE	ARCHITECTURAL SHINGLE
SPANISH BARREL			
16-1/2 X 52-1/4	13-1/2 X 53	16-1/2 X 52-1/4	21 X 51
26 STONE CHIP	26 STONE CHIP	26 STONE CHIP	ZINC/ALUMINUM 26 STONE CHIP
3:12	3:12	3:12	3:12
2-1/2:12	2-1/2:12	2-1/2:12	2-1/2:12
X	X	X	X
X	X	X	
X	X	X	
HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)
140	140	140	125
14-1/2 X 49-1/2	12-5/8 X 50	14-1/2 X 49-1/2	19-5/8 X 48-5/8
20	22.4	20	15
EXPOSED	EXPOSED	EXPOSED	CONCEALED
NAIL OR SCREW	NAIL OR SCREW	NAIL OR SCREW	NAILS OR SCREWS
4	4	4	6 NAILS / 4 SCREWS
INTERLOCK	INTERLOCK	INTERLOCK	INTERLOCK
NO	NO	NO	NO
YES	YES	YES OR NO	NO
1957	1992	1996	2000
--	--	--	
DIRECT / DISTRIBUTORS	DIRECT / DISTRIBUTORS	DIRECT / DISTRIBUTORS	DISTRIBUTORS
14	14	14	14
NO	NO	NO	NO
M.R. TWEDEL 817/695-1090	M.R. TWEDEL 817/695-1090	M.R. TWEDEL 817/695-1090	M.R. TWEDEL 817/695-1090
J. MILLER 909/292-8180	J. MILLER 909/292-8180	J. MILLER 909/292-8180	J. MILLER 909/292-8180
--	--	--	
--	--	--	
CLASS 90	CLASS 90	CLASS 90	
205 PSF	205 PSF	205 PSF	
			125 PSF
X	X	X	X

Metal Panels

1.	COMPANY NAME	MBCI	
2.	PRODUCT NAME	CRAFTSMAN SERIES "HB" PROFILE	
3.	CONFIGURATION		
3.1	STYLE		
	Simulated Shingle (specific type if applicable)		
	Simulated Shake (specific type if applicable)		
	Simulated Slate (specific type if applicable)		
	Simulated Tile (specific type if applicable)		
	Other (specify type)	STANDING SEAM: SEPARATE SMALL BATTEN & PAN	
3.2	COMPONENT TYPE AND SIZE		
	Panel [width (in.), maximum length (ft.)]	12, 16-1/2 (40' MAXIMUM LENGTH)	
	Individual (dimensions: inches x inches)		
3.3	MATERIALS, THICKNESSES, AND FINISHES		
	GALVANIZED STEEL (ga.):	Thicknesses	
		Finishes	
	STAINLESS STEEL (ga.)	Thicknesses	
		Finishes	
	GALVALUME (ga.)	Thicknesses	26, 24, 22
		Finishes	BARE-SIGNATURE SERIES 200,300, 300 METALLIC
	ALUMINIZED STEEL (ga.)	Thicknesses	
		Finishes	
	ALUMINUM (in.)	Thicknesses	
		Finishes	
	COPPER (oz.)	Thicknesses	
		Finishes	
	TERNE METAL (ga.)	Thicknesses	
		Finishes	
	ZINC (ga.)	Thicknesses	
		Finishes	
4.	SYSTEMS RECOMMENDATIONS		
	Min. Slope Recommended In Normal Application (in. per ft.)	3:12	
	Min. Slope Recommended In Special Application (in. per ft.)	3:12	
	DECK TYPES*		
	Solid Deck, Wood	X	
	Spaced Sheathing, Wood		
	Decking Not Required		
	Underlayment Recommended (type or NA)	30 LB. FELT	
5.	PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)		
5.1	INTERLOCKING METHOD, HEIGHT (inches), AND SEAM SEALANT	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	
	Overlapped	2 / F	
	Interlocked		
	Slip Locked		
	Snap Together	SEPARATE SMALL SNAP-ON BATTEN & PAN	
5.2	FASTENING METHOD		
	Through Fastened (exposed or concealed, specify)		
	Clip (exposed or concealed, specify)	CONCEALED	
6.	INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)		
6.1	DIMENSIONS		
	Weight Per Roof Square (pounds)		
	Exposure (inches)		
	Coverage (approx. no. of pieces per square at listed exposure)		
6.2	INSTALLATION PROCESSING		
	Through-Fastened (exposed or concealed, specify)		
	Kind(s) Of Fastener Required (nails, staples, screws, NA)		
	Number Of Fasteners Per Piece (number or NA)		
	Seam Snap-In Or Interlock (specify or NA)		
	Adhesive/Sealant Required (yes/no)		
	Support Battens Required (yes/no)		
7.	MANUFACTURER/PRODUCT DATA		
	Year Product First Sold	1983	
	Number of Squares Installed	--	
	Method Of Distribution (distributors, direct)	DIRECT	
	Number Of Regional Service Locations	21	
	Licensed Applicator Agreement (yes/no)	YES	
	For Sales Information, Contact	T. HENSON	
	For Technical Information, Contact	B. JAKS	
8.	ASTM E331, Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)	4.00 PSF - LEAKAGE RATE / NONE	
	ASTM E1646, Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference (results or none)	NONE	
	ASTM E283, Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Difference Across the Specimen (results or none)	4 PSF - LEAKAGE RATE / .048 (12") .035 (16-1/2")	
	ASTM E1680, Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems (results or none)	NONE	
	ASTM E 330, Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)	NONE	
	ASTM E 1592, Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference (results or none)	NONE	
	FM 4471, Approval Standard for Class 1 Panel Roofs (results or none)	NONE	
	UL 580, Test for Uplift Resistance of Roof Assemblies (results or none)	CLASS 90	
	UL 1897, Uplift Test For Roof Covering Systems (results or none)	NONE	
9.	SEE APPENDIX IF CHECKED		

NA=not applicable

Metal Panels

MBCI	MBCI	MBCI	MCELROY METAL INC.
CRAFTSMAN SERIES "SB" PROFILE	CRAFTSMAN "LB" PROFILE	LOKSEAM	MAXIMA
STANDING SEAM: SEPARATE SNAP ON SMALL BATTEN & PAN	STANDING SEAM: SEPARATE LARGE 2" X 2" BATTEN & PAN	STANDING SEAM: INTEGRAL BATTEN/PAN	STANDING SEAM: VERTICAL LEG PANEL
12, 16-1/2 (40' MAXIMUM LENGTH)	12, 16-1/2 (40' MAXIMUM LENGTH)	12, 16, 18 (40 FT. MAXIMUM LENGTH)	16, 18, 24 X 40
26, 24, 22 BARE-SIGNATURE SERIES 200,300, 300 METALLIC	26, 24, 22 BARE-SIGNATURE SERIES 200,300, 300 METALLIC	26, 24, 22 BARE-SIGNATURE SERIES 200,300, 300 METALLIC	24 BARE, KYNAR 500
3:12	3:12	3:12	1/4 : 12
3:12	3:12	3:12	
X	X	X	
		X	
		X	
		X	X
30 LB. FELT	30 LB. FELT		
HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)
1 / F	2 / N	1-3/4 / F	2-1/16, 3-1/6 / F
SEPARATE SMALL SNAP-ON BATTEN & PAN	SEPARATE LARGE SNAP-ON BATTEN & PAN	INTEGRAL SNAP SEAM	
CONCEALED	CONCEALED	CONCEALED	PRO-L
1983	1983	1990	1997
--	--	--	--
DIRECT	DIRECT	DIRECT	DISTRIBUTORS, DIRECT
21	21	21	20
NO	NO	YES	NO
T. HENSON	T. HENSON	T. HENSON	K. GIESEKE 800/950-6531
B. JAKS	B. JAKS	B. JAKS	E. OSTEN 800/950-6531
4.00 PSF - LEAKAGE RATE / NONE	NONE	1.57 PSF-LEAKAGE RATE / NONE	NO LEAKAGE @ 12 PSF
NONE	NONE	NONE	
4.00 PSF - LEAKAGE RATE / .048 (12") .035 (16-1/2")	NONE	1.57 PSF-LEAKAGE RATE / .0089 (18") .0100 (16") / .0134 (12")	0.021 CFM/L. FT @ 12 PSF
NONE	NONE	NONE	
NONE	NONE	NONE	
NONE	NONE	NONE	
NONE	NONE	NONE	
CLASS 90	CLASS 90	CLASS 90	UL 90
NONE	NONE	NONE	

Metal Panels

1.	COMPANY NAME	MCELROY METAL INC	
2.	PRODUCT NAME	MERIDIAN	
3.	CONFIGURATION		
3.1	STYLE		
	Simulated Shingle (specific type if applicable)		
	Simulated Shake (specific type if applicable)		
	Simulated Slate (specific type if applicable)		
	Simulated Tile (specific type if applicable)		
	Other (specify type)	STANDING SEAM	
3.2	COMPONENT TYPE AND SIZE		
	Panel [width (in.), maximum length (ft.)]	16 X 40	
	Individual (dimensions: inches x inches)		
3.3	MATERIALS, THICKNESSES, AND FINISHES		
	GALVANIZED STEEL (ga.):	Thicknesses	
		Finishes	
	STAINLESS STEEL (ga.)	Thicknesses	
		Finishes	
	GALVALUME (ga.)	Thicknesses	26
		Finishes	SILICONIZED POLYESTER, KYNAR 500, BARE
	ALUMINIZED STEEL (ga.)	Thicknesses	
		Finishes	
	ALUMINUM (in.)	Thicknesses	
		Finishes	
	COPPER (oz.)	Thicknesses	
		Finishes	
	TERNE METAL (ga.)	Thicknesses	
		Finishes	
	ZINC (ga.)	Thicknesses	
		Finishes	
4.	SYSTEMS RECOMMENDATIONS		
	Min. Slope Recommended In Normal Application (in. per ft.)	3:12	
	Min. Slope Recommended In Special Application (in. per ft.)		
	DECK TYPES*		
	Solid Deck, Wood	X	
	Spaced Sheathing, Wood		
	Decking Not Required		
	Underlayment Recommended (type or NA)	30-LB FELT	
5.	PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)		
5.1	INTERLOCKING METHOD, HEIGHT (inches), AND SEAM SEALANT	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	
	Overlapped		
	Interlocked		
	Slip Locked		
	Snap Together	1 / N	
5.2	FASTENING METHOD		
	Through Fastened (exposed or concealed, specify)	CONCEALED	
	Clip (exposed or concealed, specify)		
6.	INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)		
6.1	DIMENSIONS		
	Weight Per Roof Square (pounds)		
	Exposure (inches)		
	Coverage (approx. no. of pieces per square at listed exposure)		
6.2	INSTALLATION PROCESSING		
	Through-Fastened (exposed or concealed, specify)		
	Kind(s) Of Fastener Required (nails, staples, screws, NA)		
	Number Of Fasteners Per Piece (number or NA)		
	Seam Snap-In Or Interlock (specify or NA)		
	Adhesive/Sealant Required (yes/no)		
	Support Battens Required (yes/no)		
7.	MANUFACTURER/PRODUCT DATA		
	Year Product First Sold	1998	
	Number of Squares Installed		
	Method Of Distribution (distributors, direct)	DISTRIBUTORS, DIRECT	
	Number Of Regional Service Locations	20	
	Licensed Applicator Agreement (yes/no)	NO	
		For Sales Information, Contact	K. GIESEKE 800/950-6531
		For Technical Information, Contact	E. OSTEN 800/950-6531
8.	ASTM E331, Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)		
	ASTM E1646, Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference (results or none)		
	ASTM E283, Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Difference Across the Specimen (results or none)		
	ASTM E1680, Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems (results or none)		
	ASTM E 330, Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)		
	ASTM E 1592, Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference (results or none)		
	FM 4471, Approval Standard for Class 1 Panel Roofs (results or none)		
	UL 580, Test for Uplift Resistance of Roof Assemblies (results or none)		
	UL 1897, Uplift Test For Roof Covering Systems (results or none)		
9.	SEE APPENDIX IF CHECKED		

NA=not applicable

Metal Panels

[illegible]

Metal Panels

1.	COMPANY NAME	METAL SALES MANUFACTURING CORP.	
2.	PRODUCT NAME	PRO-LOC I, II, III	
3	CONFIGURATION		
3.1	STYLE		
	Simulated Shingle (specific type if applicable)		
	Simulated Shake (specific type if applicable)		
	Simulated Slate (specific type if applicable)		
	Simulated Tile (specific type if applicable)		
	Other (specify type)	STANDING SEAM: INTEGRAL BATTEN	
3.2	COMPONENT TYPE AND SIZE		
	Panel [width (in.), maximum length (ft.)]	12, 15, 18 X 40	
	Individual (dimensions: inches x inches)		
3.3	MATERIALS, THICKNESSES, AND FINISHES		
	GALVANIZED STEEL (ga.):	Thicknesses	26
		Finishes	BARE, COLORFAST 30
	STAINLESS STEEL (ga.)	Thicknesses	
		Finishes	
	GALVALUME (ga.)	Thicknesses	24
		Finishes	BARE, KYNAR 500 (PVF2)
	ALUMINIZED STEEL (ga.)	Thicknesses	
		Finishes	
	ALUMINUM (in.)	Thicknesses	
		Finishes	
	COPPER (oz.)	Thicknesses	
		Finishes	
	TERNE METAL (ga.)	Thicknesses	
		Finishes	
	ZINC (ga.)	Thicknesses	
		Finishes	
4.	SYSTEMS RECOMMENDATIONS		
	Min. Slope Recommended In Normal Application (in. per ft.)	3:12	
	Min. Slope Recommended In Special Application (in. per ft.)		
	DECK TYPES*		
	Solid Deck, Wood	X	
	Spaced Sheathing, Wood		
	Decking Not Required		
	Underlayment Recommended (type or NA)	30 LB. FELT	
5.	PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)		
5.1	INTERLOCKING METHOD, HEIGHT (inches), AND SEAM SEALANT	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	
	Overlapped		
	Interlocked	1-1/2, 1-7/8, 2 / N	
	Slip Locked		
	Snap Together		
5.2	FASTENING METHOD		
	Through Fastened (exposed or concealed, specify)		
	Clip (exposed or concealed, specify)	CONCEALED	
6.	INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)		
6.1	DIMENSIONS		
	Weight Per Roof Square (pounds)		
	Exposure (inches)		
	Coverage (approx. no. of pieces per square at listed exposure)		
6.2	INSTALLATION PROCESSING		
	Through-Fastened (exposed or concealed, specify)		
	Kind(s) Of Fastener Required (nails, staples, screws, NA)		
	Number Of Fasteners Per Piece (number or NA)		
	Seam Snap-In Or Interlock (specify or NA)		
	Adhesive/Sealant Required (yes/no)		
	Support Battens Required (yes/no)		
7.	MANUFACTURER/PRODUCT DATA		
	Year Product First Sold	1989	
	Number of Squares Installed	--	
	Method Of Distribution (distributors, direct)	DISTRIBUTORS, DIRECT	
	Number Of Regional Service Locations	12	
	Licensed Applicator Agreement (yes/no)	--	
	For Sales Information, Contact	D. CUNNINGHAM	
	For Technical Information, Contact	D. KIRCHGESSNER	
8.	ASTM E331, Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)	NONE	
	ASTM E1646, Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference (results or none)		
	ASTM E283, Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Difference Across the Specimen (results or none)	NONE	
	ASTM E1680, Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems (results or none)		
	ASTM E 330, Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)		
	ASTM E 1592, Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference (results or none)		
	FM 4471, Approval Standard for Class 1 Panel Roofs (results or none)		
	UL 580, Test for Uplift Resistance of Roof Assemblies (results or none)		
	UL 1897, Uplift Test For Roof Covering Systems (results or none)		
9.	SEE APPENDIX IF CHECKED		

NA=not applicable

Metal Panels

METAL SALES MANUFACTURING CORP.	METAL SALES MANUFACTURING CORP.	METAL SALES MANUFACTURING CORP.	METAL SALES MANUFACTURING CORP.
STILE	5V CRIMP	PRO-PANEL II	MINI, MAXI BATTEN
CLAY TILE	ARCHITECTURAL	CORRUGATED	STANDING SEAM: PAN AND BATTEN
39.4 X 20	26 X 40	38 X 40	12, 16, 18 X 40
26 KYNAR 500 (PVF2)		26, 28 COLORFAST 30	26 BARE, COLORFAST 30
	26 BARE, COLORFAST 30	26, 28 BARE	24 BARE, KYNAR 500 (PVF2)
3:12	3:12	3:12	3:12
X	X		X
		X	
30 LB. FELT	30 LB. FELT	30 LB. FELT	30 LB. FELT
HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)
1-3/16 / N	1/2 / N	5/8 / N	
			1, 1-1/2 / N
EXPOSED	EXPOSED	EXPOSED	CONCEALED
1983	1968	--	1993
--	--	--	--
DISTRIBUTORS, DIRECT	DISTRIBUTORS, DIRECT	DISTRIBUTORS, DIRECT	DISTRIBUTORS, DIRECT
12	12	12	12
--	--	--	--
D. CUNNINGHAM	D. CUNNINGHAM	D. CUNNINGHAM	D. CUNNINGHAM
D. KIRCHGESSNER	D. KIRCHGESSNER	D. KIRCHGESSNER	D. KIRCHGESSNER
NONE	NONE	NONE	NO LEAKAGE
NONE	NONE	NONE	.004 CFM/SQ FT

Metal Panels

1.	COMPANY NAME	METAL SALES MANUFACTURING CORP.	
2.	PRODUCT NAME	VERTICAL SEAM	
3	CONFIGURATION		
3.1	STYLE		
	Simulated Shingle (specific type if applicable)		
	Simulated Shake (specific type if applicable)		
	Simulated Slate (specific type if applicable)		
	Simulated Tile (specific type if applicable)		
	Other (specify type)	STANDING SEAM: SNAP SEAM	
3.2	COMPONENT TYPE AND SIZE		
	Panel [width (in.), maximum length (ft.)]	10, 12, 16, 18 X 40	
	Individual (dimensions: inches x inches)		
3.3	MATERIALS, THICKNESSES, AND FINISHES		
	GALVANIZED STEEL (ga.):	Thicknesses	26
		Finishes	BARE, COLORFAST 30
	STAINLESS STEEL (ga.)	Thicknesses	
		Finishes	
	GALVALUME (ga.)	Thicknesses	24
		Finishes	BARE, KYNAR 500 (PVF2)
	ALUMINIZED STEEL (ga.)	Thicknesses	
		Finishes	
	ALUMINUM (in.)	Thicknesses	
		Finishes	
	COPPER (oz.)	Thicknesses	
		Finishes	
	TERNE METAL (ga.)	Thicknesses	
		Finishes	
	ZINC (ga.)	Thicknesses	
		Finishes	
4.	SYSTEMS RECOMMENDATIONS		
	Min. Slope Recommended In Normal Application (in. per ft.)	3:12	
	Min. Slope Recommended In Special Application (in. per ft.)		
	DECK TYPES*		
	Solid Deck, Wood	X	
	Spaced Sheathing, Wood	X	
	Decking Not Required	X	
	Underlayment Recommended (type or NA)	30 LB. FELT	
5.	PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)		
5.1	INTERLOCKING METHOD, HEIGHT (inches), AND SEAM SEALANT	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	
	Overlapped		
	Interlocked		
	Slip Locked		
	Snap Together	1-3/4 / F	
5.2	FASTENING METHOD		
	Through Fastened (exposed or concealed, specify)		
	Clip (exposed or concealed, specify)	CONCEALED	
6.	INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)		
6.1	DIMENSIONS		
	Weight Per Roof Square (pounds)		
	Exposure (inches)		
	Coverage (approx. no. of pieces per square at listed exposure)		
6.2	INSTALLATION PROCESSING		
	Through-Fastened (exposed or concealed, specify)		
	Kind(s) Of Fastener Required (nails, staples, screws, NA)		
	Number Of Fasteners Per Piece (number or NA)		
	Seam Snap-In Or Interlock (specify or NA)		
	Adhesive/Sealant Required (yes/no)		
	Support Battens Required (yes/no)		
7.	MANUFACTURER/PRODUCT DATA		
	Year Product First Sold	1993	
	Number of Squares Installed	--	
	Method Of Distribution (distributors, direct)	DISTRIBUTORS, DIRECT	
	Number Of Regional Service Locations	12	
	Licensed Applicator Agreement (yes/no)	--	
	For Sales Information, Contact	D. CUNNINGHAM	
	For Technical Information, Contact	D. KIRCHGESSNER	
8.	ASTM E331, Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)	NO LEAKAGE	
	ASTM E1646, Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference (results or none)		
	ASTM E283, Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Difference Across the Specimen (results or none)	.110 CFM/SQ FT	
	ASTM E1680, Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems (results or none)		
	ASTM E 330, Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)		
	ASTM E 1592, Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference (results or none)		
	FM 4471, Approval Standard for Class 1 Panel Roofs (results or none)		
	UL 580, Test for Uplift Resistance of Roof Assemblies (results or none)		
	UL 1897, Uplift Test For Roof Covering Systems (results or none)		
9.	SEE APPENDIX IF CHECKED		

NA=not applicable

Metal Panels

[illegible]

Metal Panels

1.	COMPANY NAME	PERFECTION: THE VERY BEST IN BUILDING PRODUCTS	
2.	PRODUCT NAME	COUNTRY MANOR SHAKE	
3.	CONFIGURATION		
3.1	STYLE		
	Simulated Shingle (specific type if applicable)		
	Simulated Shake (specific type if applicable)	X	
	Simulated Slate (specific type if applicable)		
	Simulated Tile (specific type if applicable)		
	Other (specify type)		
3.2	COMPONENT TYPE AND SIZE		
	Panel [width (in.), maximum length (ft.)]		
	Individual (dimensions: inches x inches)	12 X 48	
3.3	MATERIALS, THICKNESSES, AND FINISHES		
	GALVANIZED STEEL (ga.):	Thicknesses	
		Finishes	
	STAINLESS STEEL (ga.)	Thicknesses	
		Finishes	
	GALVALUME (ga.)	Thicknesses	
		Finishes	
	ALUMINIZED STEEL (ga.)	Thicknesses	
		Finishes	
	ALUMINUM (in.)	Thicknesses	0.019
		Finishes	KYNAR 500 / HYLAR 5000
	COPPER (oz.)	Thicknesses	
		Finishes	
	TERNE METAL (ga.)	Thicknesses	
		Finishes	
	ZINC (ga.)	Thicknesses	
		Finishes	
4.	SYSTEMS RECOMMENDATIONS		
	Min. Slope Recommended In Normal Application (in. per ft.)	3:12	
	Min. Slope Recommended In Special Application (in. per ft.)	4:12	
	DECK TYPES*		
	Solid Deck, Wood	X	
	Spaced Sheathing, Wood		
	Decking Not Required		
	Underlayment Recommended (type or NA)	30 LB. FELT	
5.	PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)		
5.1	INTERLOCKING METHOD, HEIGHT (inches), AND SEAM SEALANT	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	
	Overlapped		
	Interlocked		
	Slip Locked		
	Snap Together		
5.2	FASTENING METHOD		
	Through Fastened (exposed or concealed, specify)		
	Clip (exposed or concealed, specify)		
6.	INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)		
6.1	DIMENSIONS		
	Weight Per Roof Square (pounds)	45	
	Exposure (inches)	12 X 48	
	Coverage (approx. no. of pieces per square at listed exposure)	25	
6.2	INSTALLATION PROCESSING		
	Through-Fastened (exposed or concealed, specify)	CONCEALED	
	Kind(s) Of Fastener Required (nails, staples, screws, NA)	NAILS OR SCREWS	
	Number Of Fasteners Per Piece (number or NA)	4	
	Seam Snap-In Or Interlock (specify or NA)	INTERLOCK	
	Adhesive/Sealant Required (yes/no)	NO	
	Support Battens Required (yes/no)	NO	
7.	MANUFACTURER/PRODUCT DATA		
	Year Product First Sold	1996	
	Number of Squares Installed	60,000	
	Method Of Distribution (distributors, direct)	DISTRIBUTORS	
	Number Of Regional Service Locations	2	
	Licensed Applicator Agreement (yes/no)	YES	
	For Sales Information, Contact	J. KNIFE 888/788-2427	
	For Technical Information, Contact	E. VORESS 888/788-2427	
8.	ASTM E331, Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)	NONE	
	ASTM E1646, Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference (results or none)		
	ASTM E283, Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Difference Across the Specimen (results or none)	NONE	
	ASTM E1680, Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems (results or none)		
	ASTM E 330, Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)		
	ASTM E 1592, Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference (results or none)		
	FM 4471, Approval Standard for Class 1 Panel Roofs (results or none)		
	UL 580, Test for Uplift Resistance of Roof Assemblies (results or none)		
	UL 1897, Uplift Test For Roof Covering Systems (results or none)		
9.	SEE APPENDIX IF CHECKED		

NA=not applicable

Metal Panels

[illegible]

Metal Panels

1.	COMPANY NAME	PETERSEN ALUMINUM CORP.	
2.	PRODUCT NAME	FLUSH PANEL	
3.	CONFIGURATION		
3.1	STYLE		
	Simulated Shingle (specific type if applicable)		
	Simulated Shake (specific type if applicable)		
	Simulated Slate (specific type if applicable)		
	Simulated Tile (specific type if applicable)		
	Other (specify type)	STANDING SEAM	
3.2	COMPONENT TYPE AND SIZE		
	Panel [width (in.), maximum length (ft.)]	7-18 X 40	
	Individual (dimensions: inches x inches)		
3.3	MATERIALS, THICKNESSES, AND FINISHES		
	GALVANIZED STEEL (ga.):	Thicknesses	22, 24
		Finishes	KYNAR 500
	STAINLESS STEEL (ga.)	Thicknesses	
		Finishes	
	GALVALUME (ga.)	Thicknesses	
		Finishes	
	ALUMINIZED STEEL (ga.)	Thicknesses	
		Finishes	
	ALUMINUM (in.)	Thicknesses	0.032
		Finishes	KYNAR 500
	COPPER (oz.)	Thicknesses	
		Finishes	
	TERNE METAL (ga.)	Thicknesses	
		Finishes	
	ZINC (ga.)	Thicknesses	
		Finishes	
4.	SYSTEMS RECOMMENDATIONS		
	Min. Slope Recommended In Normal Application (in. per ft.)	--	
	Min. Slope Recommended In Special Application (in. per ft.)	--	
	DECK TYPES*		
	Solid Deck, Wood	X	
	Spaced Sheathing, Wood	X	
	Decking Not Required		
	Underlayment Recommended (type or NA)	30 LB. FELT	
5.	PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)		
5.1	INTERLOCKING METHOD, HEIGHT (inches), AND SEAM SEALANT	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	
	Overlapped		
	Interlocked		
	Slip Locked	1 / N	
	Snap Together		
5.2	FASTENING METHOD		
	Through Fastened (exposed or concealed, specify)	CONCEALED	
	Clip (exposed or concealed, specify)		
6.	INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)		
6.1	DIMENSIONS		
	Weight Per Roof Square (pounds)		
	Exposure (inches)		
	Coverage (approx. no. of pieces per square at listed exposure)		
6.2	INSTALLATION PROCESSING		
	Through-Fastened (exposed or concealed, specify)		
	Kind(s) Of Fastener Required (nails, staples, screws, NA)		
	Number Of Fasteners Per Piece (number or NA)		
	Seam Snap-In Or Interlock (specify or NA)		
	Adhesive/Sealant Required (yes/no)		
	Support Battens Required (yes/no)		
7.	MANUFACTURER/PRODUCT DATA		
	Year Product First Sold	1978	
	Number of Squares Installed	> 100,000	
	Method Of Distribution (distributors, direct)	DISTRIBUTORS, DIRECT	
	Number Of Regional Service Locations	4	
	Licensed Applicator Agreement (yes/no)	NO	
	For Sales Information, Contact	800/323-1960	
	For Technical Information, Contact	800/323-1960	
8.	ASTM E331, Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)	NONE	
	ASTM E1646, Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference (results or none)		
	ASTM E283, Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Difference Across the Specimen (results or none)	NONE	
	ASTM E1680, Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems (results or none)		
	ASTM E 330, Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)		
	ASTM E 1592, Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference (results or none)		
	FM 4471, Approval Standard for Class 1 Panel Roofs (results or none)		
	UL 580, Test for Uplift Resistance of Roof Assemblies (results or none)		
	UL 1897, Uplift Test For Roof Covering Systems (results or none)		
9.	SEE APPENDIX IF CHECKED		

NA=not applicable

Metal Panels

[illegible]

Metal Panels

1.	COMPANY NAME	PETERSEN ALUMINUM CORP.	
2.	PRODUCT NAME	SNAP-CLAD	
3.	CONFIGURATION		
3.1	STYLE		
	Simulated Shingle (specific type if applicable)		
	Simulated Shake (specific type if applicable)		
	Simulated Slate (specific type if applicable)		
	Simulated Tile (specific type if applicable)		
	Other (specify type)	STANDING SEAM	
3.2	COMPONENT TYPE AND SIZE		
	Panel [width (in.), maximum length (ft.)]	10-18 X 45	
	Individual (dimensions: inches x inches)		
3.3	MATERIALS, THICKNESSES, AND FINISHES		
	GALVANIZED STEEL (ga.):	Thicknesses	22, 24
		Finishes	KYNAR 500
	STAINLESS STEEL (ga.)	Thicknesses	
		Finishes	
	GALVALUME (ga.)	Thicknesses	
		Finishes	
	ALUMINIZED STEEL (ga.)	Thicknesses	
		Finishes	
	ALUMINUM (in.)	Thicknesses	0.032, 0.040
		Finishes	KYNAR 500
	COPPER (oz.)	Thicknesses	
		Finishes	
	TERNE METAL (ga.)	Thicknesses	
		Finishes	
	ZINC (ga.)	Thicknesses	
		Finishes	
4.	SYSTEMS RECOMMENDATIONS		
	Min. Slope Recommended In Normal Application (in. per ft.)	2:12	
	Min. Slope Recommended In Special Application (in. per ft.)	2:12	
	DECK TYPES*		
	Solid Deck, Wood	X	
	Spaced Sheathing, Wood	X	
	Decking Not Required	X	
	Underlayment Recommended (type or NA)	30 LB. FELT	
5.	PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)		
5.1	INTERLOCKING METHOD, HEIGHT (inches), AND SEAM SEALANT	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	
	Overlapped		
	Interlocked		
	Slip Locked	1-3/4 / F	
	Snap Together		
5.2	FASTENING METHOD		
	Through Fastened (exposed or concealed, specify)		
	Clip (exposed or concealed, specify)	CONCEALED	
6.	INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)		
6.1	DIMENSIONS		
	Weight Per Roof Square (pounds)		
	Exposure (inches)		
	Coverage (approx. no. of pieces per square at listed exposure)		
6.2	INSTALLATION PROCESSING		
	Through-Fastened (exposed or concealed, specify)		
	Kind(s) Of Fastener Required (nails, staples, screws, NA)		
	Number Of Fasteners Per Piece (number or NA)		
	Seam Snap-In Or Interlock (specify or NA)		
	Adhesive/Sealant Required (yes/no)		
	Support Battens Required (yes/no)		
7.	MANUFACTURER/PRODUCT DATA		
	Year Product First Sold	1993	
	Number of Squares Installed	> 100,000	
	Method Of Distribution (distributors, direct)	DISTRIBUTORS, DIRECT	
	Number Of Regional Service Locations	4	
	Licensed Applicator Agreement (yes/no)	NO	
	For Sales Information, Contact	800/323-1960	
	For Technical Information, Contact	800/323-1960	
8.	ASTM E331, Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)	NO LEAKAGE @ 12 PSF	
	ASTM E1646, Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference (results or none)		
	ASTM E283, Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Difference Across the Specimen (results or none)	0.005 CFM/SQ FT @ 1.57 PSF	
	ASTM E1680, Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems (results or none)		
	ASTM E 330, Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)		
	ASTM E 1592, Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference (results or none)		
	FM 4471, Approval Standard for Class 1 Panel Roofs (results or none)		
	UL 580, Test for Uplift Resistance of Roof Assemblies (results or none)		
	UL 1897, Uplift Test For Roof Covering Systems (results or none)		
9.	SEE APPENDIX IF CHECKED		

NA=not applicable

Metal Panels

PETERSEN ALUMINUM CORP.	PETERSEN ALUMINUM CORP.	SPRINGHOUSE INC.	SPRINGHOUSE INC.
TITE-LOC	TITE-LOC PLUS	SPRINGHOUSE SHINGLES	SPRINGHOUSE SHINGLES
		X	
			X
STANDING SEAM	STANDING SEAM		
12, 16, 18 X 50	12, 16, 18 X 50		
		11-1/2 X 34-1/2	11-1/2 X 34-1/2
22, 24 KYNAR 500	22, 24 KYNAR 500	29 KYNAR	29 KYNAR
		29 DULL	29 DULL
0.032, 0.040 KYNAR 500	0.032, 0.040 KYNAR 500		
		12,16 NATURAL, LEAD COATED, PRE-PATINA	12,16 NATURAL, LEAD COATED, PRE-PATINA
		0.020, 0.027 PRE-PATINA, GRAY, BLACK	0.020, 0.027 PRE-PATINA, GRAY, BLACK
1/2:12	1/2:12	4:12	4:12
1/2:12	1/2:12	--	--
X	X	X	X
X	X	X	X
X	X		
NA	NA	30 LB. FELT	30 LB. FELT
HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)
2 / F	2 / F		
CONCEALED	CONCEALED		
		80 LBS.	80 LBS.
		10	10
		42	42
		CONCEALED	CONCEALED
		NAILS, SCREWS	NAILS, SCREWS
		5	5
2000	2000	1996	1996
>100,000	>100,000	--	--
DISTRIBUTORS, DIRECT	DISTRIBUTORS, DIRECT	DISTRIBUTORS, DIRECT	DISTRIBUTORS, DIRECT
4	4	--	--
NO	NO	NO	NO
800/323-1860	800/323-1860	519/235-1566	519/235-1566
800/323-1960	800/323-1960	519/235-1566	519/235-1566
NO LEAKAGE @ 12 PSF	NO LEAKAGE @ 12 PSF		
NO LEAKATE @ 12 PSF	NO LEAKATE @ 12 PSF		
0.001 CFM/SQ @ 6.24 psf	0.007 CFM/SQ @ 6.24 PSF		
0.001 CFM /SQ @ 6.4 PSF	0.007 CFM/SQ @ 6.24 PSF		
97.8 PSF (MAX LOAD)	147.0 PSF (MAX. LOAD)		
NONE	NONE		
UL-90	UL-90		
NONE	NONE		

Metal Panels

1.	COMPANY NAME	VINCENT METALS	
2.	PRODUCT NAME	COLORKLAD SYSTEM I	
3.	CONFIGURATION		
3.1	STYLE		
	Simulated Shingle (specific type if applicable)		
	Simulated Shake (specific type if applicable)		
	Simulated Slate (specific type if applicable)		
	Simulated Tile (specific type if applicable)		
	Other (specify type)	STANDING SEAM	
3.2	COMPONENT TYPE AND SIZE		
	Panel [width (in.), maximum length (ft.)]	12, 16, 18, 22 X 40	
	Individual (dimensions: inches x inches)		
3.3	MATERIALS, THICKNESSES, AND FINISHES		
	GALVANIZED STEEL (ga.):	Thicknesses	24
		Finishes	KYNAR 500, MILL
	STAINLESS STEEL (ga.)	Thicknesses	24, 26
		Finishes	MILL
	GALVALUME (ga.)	Thicknesses	24
		Finishes	MILL
	ALUMINIZED STEEL (ga.)	Thicknesses	
		Finishes	
	ALUMINUM (in.)	Thicknesses	0.032
		Finishes	KYNAR 500
	COPPER (oz.)	Thicknesses	16, 20
		Finishes	MILL
	TERNE METAL (ga.)	Thicknesses	24, 26, 28, 30
		Finishes	MILL
	ZINC (ga.)	Thicknesses	
		Finishes	
4.	SYSTEMS RECOMMENDATIONS		
	Min. Slope Recommended In Normal Application (in. per ft.)	3:12	
	Min. Slope Recommended In Special Application (in. per ft.)		
	DECK TYPES*		
	Solid Deck, Wood	X	
	Spaced Sheathing, Wood		
	Decking Not Required		
	Underlayment Recommended (type or NA)	30 LB. FELT	
5.	PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)		
5.1	INTERLOCKING METHOD, HEIGHT (inches), AND SEAM SEALANT	HEIGHT (inches) / SEAM SEALANT (F = Factory Applied; E = Field applied; N = None)	
	Overlapped		
	Interlocked		
	Slip Locked		
	Snap Together	1, 1-1/2 / E, N	
5.2	FASTENING METHOD		
	Through Fastened (exposed or concealed, specify)		
	Clip (exposed or concealed, specify)	CONCEALED	
6.	INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)		
6.1	DIMENSIONS		
	Weight Per Roof Square (pounds)		
	Exposure (inches)		
	Coverage (approx. no. of pieces per square at listed exposure)		
6.2	INSTALLATION PROCESSING		
	Through-Fastened (exposed or concealed, specify)		
	Kind(s) Of Fastener Required (nails, staples, screws, NA)		
	Number Of Fasteners Per Piece (number or NA)		
	Seam Snap-In Or Interlock (specify or NA)		
	Adhesive/Sealant Required (yes/no)		
	Support Battens Required (yes/no)		
7.	MANUFACTURER/PRODUCT DATA		
	Year Product First Sold	1969	
	Number of Squares Installed	--	
	Method Of Distribution (distributors, direct)	DISTRIBUTORS & DIRECT	
	Number Of Regional Service Locations	100	
	Licensed Applicator Agreement (yes/no)	NO	
	For Sales Information, Contact	R. OEHME	
	For Technical Information, Contact	R. OEHME	
8.	ASTM E331, Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)	NONE	
	ASTM E1646, Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference (results or none)		
	ASTM E283, Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Difference Across the Specimen (results or none)	NONE	
	ASTM E1680, Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems (results or none)		
	ASTM E 330, Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference (results or none)		
	ASTM E 1592, Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference (results or none)		
	FM 4471, Approval Standard for Class 1 Panel Roofs (results or none)		
	UL 580, Test for Uplift Resistance of Roof Assemblies (results or none)		
	UL 1897, Uplift Test For Roof Covering Systems (results or none)		
9.	SEE APPENDIX IF CHECKED		

NA=not applicable

Metal Panels

[illegible]

Appendix

METAL PANELS

Atas International, Inc.

Atas International, Inc. produces a wide range of panel styles for the residential roofing market, from simulated roof tiles to conventional standing seam profiles. Most materials are offered in the fluoropolymer Kynar 500 coating system. More than twenty standard colors are offered in this system, which is designed to give long life with excellent chalk and fade resistance. Contact ATAS for more information and technical assistance.

Berridge Manufacturing Company

The Berridge Bermuda Roof Panel may be formed on site in continuous lengths using a Berridge portable roll former and Berridge coil material.

Decra Roofing Systems/Tasman Roofing

Decra Roofing panels are manufactured to international quality standards and are tested to comply with or exceed relevant building codes and regulations. Each panel is pressed from zinc/aluminum alloy-coated steel. The acrylic bonded, ceramic coated, stone granules, manufactured by 3M for roofing use resist fading and UV penetration.



Section 5 - Wood Shakes and Shingles

Information on Section 5: Wood Shakes and Shingles

General Information

Section 5: Wood Shakes and Shingles in NRCA's *2002-03 Steep-Slope Roofing Materials Guide* is a comprehensive listing of wood shake and shingle products commonly used in steep-slope roofing.

Wood roofing products are generally separated into two categories: cedar shakes and shingles, and wood fiber panels.

Shakes and shingles are manufactured from western red cedar, cypress, pine and redwood trees. Wood shingles are sawn on both sides and have an even taper and uniform thickness. The industry terms *Perfection* and *Royal*, when applied to shingles, mean nothing more than 18-inch (460 mm) and 24-inch (610 mm), respectively. Shakes are split from logs and reshaped by manufacturers for commercial use. They are thicker at the butt end than shingles; generally one or both surfaces are split in order to obtain a textured effect. The split and resawn shake has a split face and sawn back. The taper-sawn shake has a natural taper and is sawn on both sides. Cedar shakes and shingles are available pressure treated with fire retardants and chemical preservatives, for increased fire protection and to prevent premature rot and decay in some climates. Cedar shakes and shingles are installed over both spaced and solid sheathing and mechanically fastened. Shakes are installed using felt interlays that act as baffles against wind-driven material and increase insulating values.

Pine shakes are made from southern yellow pine and are taper-sawn. They are also available pressure-treated with preservatives to protect against decay and insects. They may be installed over spaced or solid sheathing and are mechanically fastened. Interlayment felts are required.

The category of wood fiber covers those products made of wood fibers, bonded together under heat and pressure to form shakes or shingles. Because of the size of the components, they are classified as panels rather than individual shakes or shingles. They are mechanically fastened over spaced or solid sheathing.

7. Hip/ridge pieces available
8. Slope and underlayment/interlayment recommendations
9. Recommended decks
10. Year product first sold
11. Number of squares installed
12. Distribution
13. Fire ratings
14. Accepted by the following codes
15. Sales and technical information contacts

Additional information regarding wood shake and shingle roof systems is provided in *The NRCA Roofing and Waterproofing Manual*.

Specific Information Included in the Guide

Specific listing information for wood shake and shingle products is as follows:

1. Company name
2. Product name
3. Wood species
4. Product style and size
5. Availability
6. Dimensions and coverage

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Index to Wood Shakes and Shingles

Wood Shakes and Shingles	
AMARANT WOOD PRODUCTS P.O. Box 1008 Arcata, CA 95518 800/423-2205 FAX: 707/822-2823 E-mail: amarantwood@aol.com	196
ANBROOK INDUSTRIES LTD. P.O. Box 3044 Sumas, WA 98295-3044 604/465-5657 FAX: 604/465-3657	196
B.C.F. SHAKE MILL LTD. Site 25, C-1, RR # 1 Fanny Bay, BC V0R 1W0 Canada 250/335-2969 FAX: 250/335-1425	197
GREEN RIVER LOG SALES P.O. Box 515 Sumas, WA 98295 800/663-8707 FAX: 604/820-3872	197

Wood Shakes and Shingles	
H & L SALVAGE INC. P.O. Box 19535 Thorne Bay, AK 99919 907/723-5302 FAX: None	200
PARKER CEDAR PRODUCTS 7543 Vantage Place Delta, BC V4C 1A5 Canada 604/946-4333 FAX: 604/946-3605	201
TAMARK MANUFACTURING, LLC 508 Stella Avenue; P.O. Box 1386 Savannah, GA 31402 912/232-0786 FAX: 912/232-7826 E-mail: sales@lifepine.com Web: www.lifepine.com	201

Wood Shakes and Shingles

1. COMPANY NAME	AMARANT WOOD PRODUCTS	AMARANT WOOD PRODUCTS	ANBROOK INDUSTRIES LTD.
2. PRODUCT NAME			
3. WOOD SPECIES	CEDAR	REDWOOD	CEDAR
4. PRODUCT STYLE AND SIZE			
4A. CEDAR			
Shake, Split And Resawn, 24-Inch (24 IN. X 1/2 IN.)	X	X	X
Shake, Split And Resawn, 24-Inch (24 IN. X 3/4 IN.)	X	X	X
Shake, Taper-Sawn, 18-Inch		X	X
Shake, Taper-Sawn, 24-Inch		X	X
Shingle, Perfection 18-Inch	X	X	X
Shingle, Royal 24-Inch	X	X	X
4B. PINE			
Shake, Taper-Sawn, 18-Inch X 13/16-Inch			
Shake, Taper-Sawn 24-Inch X 13/16-Inch			
Shingle, Royal 24-Inch			
4C. WOOD FIBER			
Panel, 12 IN. X 48 IN. X 7/16 IN.			
Panel, 12 IN. X 40 IN. X 1/2 IN.			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)			NO
6. DIMENSIONS AND COVERAGE			
Maximum Exposure (inches)	7 1/2 - 10	7 1/2 - 10	
Headlap (inches)			
Weight Per Roof Square (at ambient temperature, pounds)	200 - 300	200 - 300	200 - 300
Fasteners Required (nails, staples, or specify)			NAILS OR STAPLES
7. HIP/RIDGE PIECES AVAILABLE (yes/no)			YES
8. SLOPE/INTERLAYMENT-UNDERLAYMENT RECOMMENDATIONS			
Minimum Slope Recommended For Normal Application (inches per foot)	0.175	0.175	
Interlayment Recommended In Normal Application			
Underlayment Recommended In Normal Application			
Minimum Slope Recommended For Special Application (inches per foot)			
Interlayment Recommended In Special Application			
Underlayment Recommended In Special Application			
9. RECOMMENDED DECKS			
9A. TYPES			
Solid Sheathing	X	X	
Spaced Sheathing	X	X	
9B. MATERIAL			
Plywood/Wood	X	X	
Oriented-Strand Board	X	X	
Waferboard			
Other (specify)			
10. YEAR PRODUCT FIRST SOLD	2000	1961	1970
11. NUMBER OF SQUARES INSTALLED			
12. DISTRIBUTION			
DISTRIBUTORS (number handling product or no)	20	20	
DIRECT (number of regional service locations or no)			
13. FIRE RATINGS			
Fire Rating(s) Available (per UL Standard 790)	CLASS A, B, C	CLASS A, B, C	CLASS A, B, C
Fire Ratings(s) Available (per ASTM E108)			
14. ACCEPTED BY THE FOLLOWING CODES	UBC 32-8 CSA 0118.1	UBC 32-8 CSA 0118.1	
15. FOR SALES INFORMATION, CONTACT:	AMARANT WOOD PRODS 800/423-2205	AMARANT WOOD PRODS 800/423-2205	BROOKE MEEKER 604/465-5657
FOR TECHNICAL INFORMATION, CONTACT:	AMARANT WOOD PRODS 800/423-2205	AMARANT WOOD PRODS 800/423-2205	WWW.CEDARBUREAU.ORG
16. SEE APPENDIX IF CHECKED			

NA=not applicable

Wood Shakes and Shingles

B.C.F. SHAKE MILL LTD.	GREEN RIVER LOG SALES LTD.	GREEN RIVER LOG SALES LTD.	GREEN RIVER LOG SALES LTD.	GREEN RIVER LOG SALES LTD.	GREEN RIVER LOG SALES LTD.
	BLACK HAWK	BLACK HAWK	GREEN RIVER	GREEN RIVER	GREEN RIVER
CEDAR	WESTERN RED CEDAR	WESTERN RED CEDAR	WESTERN RED CEDAR	WESTERN RED CEDAR	WESTERN RED CEDAR
X	X		X		
X		X		X	
X					X
X					
X					
NO	NO	NO			
10	10	10	10	10	7 1/2
14	14	14	14	14	10 1/2
385	380 ±	250 ±	380 ±	250 ±	270 ±
NAILS OR STAPLES	NAILS OR STAPLES	NAILS OR STAPLES	NAILS OR STAPLES	NAILS OR STAPLES	NAILS OR STAPLES
			YES	YES	YES
0.175	4:12	4:12	4:12	4:12	4:12
TYPE 30 FELT	TYPE-30 FELT	TYPE-30 FELT	TYPE-30 FELT	TYPE-30 FELT	TYPE-30 FELT
NONE	NONE	NONE	NONE	NONE	NONE
	X	X	X	X	X
X	X	X	X	X	X
	X	X	X	X	X
	X	X	X	X	X
	X	X	X	X	X
1945	1985	1985	1969	1969	1969
	160,000	275,000	800,000	1.3 MILLION +	250,000+
	400 ±	400 ±	400 ±	400 ±	400 ±
YES	NO	NO	NO	NO	NO
ICBO CSA UBC	ICBO BOCA SBCCI	ICBO BOCA SBCCI	ICBO BOCA SBCCI	ICBO BOCA SBCCI	ICBO BOCA SBCCI
ROGER LENNOX 250/335-1425	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707
ROGER LENNOX 250/335-1425	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707

Wood Shakes and Shingles

1. COMPANY NAME	GREEN RIVER LOG SALES LTD.	GREEN RIVER LOG SALES LTD.	GREEN RIVER LOG SALES LTD.
2. PRODUCT NAME	GREEN RIVER	GREEN RIVER	GREEN RIVER
3. WOOD SPECIES	WESTERN RED CEDAR	WESTERN RED CEDAR	WESTERN RED CEDAR
4. PRODUCT STYLE AND SIZE			
4A. CEDAR			
Shake, Split And Resawn, 24-Inch (24 IN. X 1/2 IN.)			
Shake, Split And Resawn, 24-Inch (24 IN. X 3/4 IN.)			
Shake, Taper-Sawn, 18-Inch			
Shake, Taper-Sawn, 24-Inch	X		
Shingle, Perfection 18-Inch		X	
Shingle, Royal 24-Inch			X
4B. PINE			
Shake, Taper-Sawn, 18-Inch X 13/16-Inch			
Shake, Taper-Sawn 24-Inch X 13/16-Inch			
Shingle, Royal 24-Inch			
4C. WOOD FIBER			
Panel, 12 IN. X 48 IN. X 7/16 IN.			
Panel, 12 IN. X 40 IN. X 1/2 IN.			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO	NO
6. DIMENSIONS AND COVERAGE			
Maximum Exposure (inches)	10	5 1/2	7 1/2
Headlap (inches)	14	12 1/2	16 1/2
Weight Per Roof Square (at ambient temperature, pounds)	380 +	250 +	270 +
Fasteners Required (nails, staples, or specify)	NAILS OR STAPLES	NAILS OR STAPLES	NAILS OR STAPLES
7. HIP/RIDGE PIECES AVAILABLE (yes/no)	YES	YES	YES
8. SLOPE/INTERLAYMENT-UNDERLAYMENT RECOMMENDATIONS			
Minimum Slope Recommended For Normal Application (inches per foot)	4:12	4:12	4:12
Interlayment Recommended In Normal Application	TYPE-30 FELT	NONE	NONE
Underlayment Recommended In Normal Application	NONE	NONE	NONE
Minimum Slope Recommended For Special Application (inches per foot)		3:12	3:12
Interlayment Recommended In Special Application		NONE	NONE
Underlayment Recommended In Special Application		NONE	NONE
9. RECOMMENDED DECKS			
9A. TYPES			
Solid Sheathing	X	X	X
Spaced Sheathing	X	X	X
9B. MATERIAL			
Plywood/Wood	X	X	X
Oriented-Strand Board	X	X	X
Waferboard	X	X	X
Other (specify)			
10. YEAR PRODUCT FIRST SOLD	1969	1969	1969
11. NUMBER OF SQUARES INSTALLED	580,000+	1 MILLION +	230,000+
12. DISTRIBUTION			
DISTRIBUTORS (number handling product or no)	400 ±	400 ±	400 ±
DIRECT (number of regional service locations or no)	NO	NO	NO
13. FIRE RATINGS			
Fire Rating(s) Available (per UL Standard 790)			
Fire Ratings(s) Available (per ASTM E108)			
14. ACCEPTED BY THE FOLLOWING CODES	ICBO BOCA SBCCI	ICBO BOCA SBCCI	ICBO BOCA SBCCI
15. FOR SALES INFORMATION, CONTACT:	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707
FOR TECHNICAL INFORMATION, CONTACT:	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707
16. SEE APPENDIX IF CHECKED			

NA=not applicable

Wood Shakes and Shingles

GREEN RIVER LOG SALES LTD.	GREEN RIVER LOG SALES LTD.	GREEN RIVER LOG SALES LTD.	GREEN RIVER LOG SALES LTD.	GREEN RIVER LOG SALES LTD.	GREEN RIVER LOG SALES LTD.
SCOTT CEDAR	SCOTT CEDAR	CEDAR PLUS	CEDAR PLUS	CEDAR PLUS	CEDAR PLUS
WESTERN RED CEDAR	WESTERN RED CEDAR	WESTERN RED CEDAR	WESTERN RED CEDAR	WESTERN RED CEDAR	WESTERN RED CEDAR
X		X			
	X		X		
				X	
					X
NO	NO	NO	NO	NO	NO
10	10	10	10	7 1/2	10
14	14	14	14	10 1/2	14
380	250	380 +	260 +	280 +	280 ±
NAILS OR STAPLES	NAILS OR STAPLES	NAILS OR STAPLES	NAILS OR STAPLES	NAILS OR STAPLES	NAILS OR STAPLES
YES	YES	YES	YES	YES	YES
4:12	4:12	4:12	4:12	4:12	4:12
TYPE-30 FELT	TYPE-30 FELT	TYPE-30 FELT	TYPE-30 FELT	TYPE-30 FELT	TYPE-30 FELT
NONE	NONE	NONE	NONE	NONE	NONE
X	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X	X	X
1961	1981	1984	1984	1984	1984
750,000 +	1.3 MILLION +	450,000	590,000	125,000	115,000
400 ±	400 ±	400 ±	400 ±	400 ±	400 ±
NO	NO	NO	NO	NO	NO
		A, B, C	A, B, C	A, B, C	A, B, C
		A, B, C	A, B, C	A, B, C	A, B, C
ICBO BOCA SBCCI	ICBO BOCA SBCCI	ICBO BOCA SBCCI	ICBO BOCA SBCCI	ICBO BOCA SBCCI	ICBO BOCA SBCCI
D. KNOTT 800/663-8707	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707
D. KNOTT 800/663-8707	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707

Wood Shakes and Shingles

1. COMPANY NAME	GREEN RIVER LOG SALES LTD.	GREEN RIVER LOG SALES LTD.	H & L SALVAGE INC.
2. PRODUCT NAME	CEDAR PLUS	CEDAR PLUS	
3. WOOD SPECIES	WESTERN RED CEDAR	WESTERN RED CEDAR	RED/YELLOW CEDAR
4. PRODUCT STYLE AND SIZE			
4A. CEDAR			
Shake, Split And Resawn, 24-Inch (24 IN. X 1/2 IN.)			X
Shake, Split And Resawn, 24-Inch (24 IN. X 3/4 IN.)			X
Shake, Taper-Sawn, 18-Inch			X
Shake, Taper-Sawn, 24-Inch			X
Shingle, Perfection 18-Inch	X		X
Shingle, Royal 24-Inch		X	
4B. PINE			
Shake, Taper-Sawn, 18-Inch X 13/16-Inch			
Shake, Taper-Sawn 24-Inch X 13/16-Inch			
Shingle, Royal 24-Inch			
4C. WOOD FIBER			
Panel, 12 IN. X 48 IN. X 7/16 IN.			
Panel, 12 IN. X 40 IN. X 1/2 IN.			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO	NO
6. DIMENSIONS AND COVERAGE			
Maximum Exposure (inches)	5 1/2	7 1/2	
Headlap (inches)	12 1/2	16 1/2	
Weight Per Roof Square (at ambient temperature, pounds)	270 ±	295 ±	
Fasteners Required (nails, staples, or specify)	NAILS OR STAPLES	NAILS OR STAPLES	
7. HIP/RIDGE PIECES AVAILABLE (yes/no)	YES	YES	YES
8. SLOPE/INTERLAYMENT-UNDERLAYMENT RECOMMENDATIONS			
Minimum Slope Recommended For Normal Application (inches per foot)	4:12	4:12	5:12
Interlayment Recommended In Normal Application	NONE	NONE	
Underlayment Recommended In Normal Application	NONE	NONE	
Minimum Slope Recommended For Special Application (inches per foot)	3:12	3:12	
Interlayment Recommended In Special Application	NONE	NONE	
Underlayment Recommended In Special Application	NONE	NONE	
9. RECOMMENDED DECKS			
9A. TYPES			
Solid Sheathing	X	X	
Spaced Sheathing	X	X	
9B. MATERIAL			
Plywood/Wood	X	X	
Oriented-Strand Board	X	X	
Waferboard	X	X	
Other (specify)			
10. YEAR PRODUCT FIRST SOLD	1984	1984	1989
11. NUMBER OF SQUARES INSTALLED	350,000	110,000	
12. DISTRIBUTION			
DISTRIBUTORS (number handling product or no)	400 ±	400 ±	
DIRECT (number of regional service locations or no)	NO	NO	
13. FIRE RATINGS			
Fire Rating(s) Available (per UL Standard 790)	A, B, C	A, B, C	
Fire Ratings(s) Available (per ASTM E108)	A, B, C	A, B, C	
14. ACCEPTED BY THE FOLLOWING CODES	ICBO BOCA SBCCI	ICBO BOCA SBCCI	
15. FOR SALES INFORMATION, CONTACT:	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707	K. LANDERS 907/723-5302
FOR TECHNICAL INFORMATION, CONTACT:	D. KNOTT 800/663-8707	D. KNOTT 800/663-8707	K. LANDERS 907/723-5302
16. SEE APPENDIX IF CHECKED			

NA=not applicable

Wood Shakes and Shingles

PARKER CEDAR PRODUCTS	TAMARK MANUFACTURING LLC	TAMARK MANUFACTURING LLC	TAMARK MANUFACTURING LLC	TAMARK MANUFACTURING LLC
	LIFEPINE SHAKE	LIFEPINE SHAKE	LIFEPINE SHAKE	ROYAL SHINGLE
CEDAR	TREATED PINE	TREATED PINE	TREATED PINE	TREATED PINE
X				
X				
X				
X				
X				
		X		
	X			
			X	X
	NO	NO	NO	NO
10	10	7.5	10	10
	14	11.5	14	14
VARIES	390	390	390	370
NAILS	NAILS	NAILS	NAILS	NAILS
NO	YES	YES	YES	YES
4-1/2:12	4:12	4:12	4:12	4:12
NO. 15 FELT	NO. 30 FELT	NO. 30 FELT	NO. 30 FELT	NO. 30 FELT
NO. 30 FELT	NONE	NONE	NONE	NONE
3:12	2:12	2:12	2:12	
NO. 15 FELT	NO. 30 FELT	NO. 30 FELT	NO. 30 FELT	
NO. 30 FELT	HOT MOP	HOT MOP	HOT MOP	
	X	X	X	X
	X	X	X	X
	X	X	X	X
	X	X	X	X
STRAPPING	1-IN. X 6-IN. LUMBER	1-IN. X 6-IN. LUMBER	1-IN. X 6-IN. LUMBER	
1985	1984	1984	1984	1991
	110,000	25,000	150,000	35000
NO	48	48	48	75
1	26	26	73	NO
	CLASS B	CLASS B	CLASS B	CLASS B
CSSB	ICBO BOCA SBCCI	ICBO BOCA SBCCI	ICBO BOCA SBCCI	ICBO BOCA SBCCI
A. SAMRA 604/946-4333	K. RULE 912/232-0786	K. RULE 912/232-0786	K. RULE 912/232-0786	K. RULE 912/232-0786
A. SAMRA 604/946-4333	K. RULE 912/232-0786	K. RULE 912/232-0786	K. RULE 912/232-0786	K. RULE 912/232-0786
	X	X	X	X

Appendix

WOOD SHAKES AND SHINGLES

Tamark Manufacturing, LLC

LifePine shakes are treated with CCA to .40 retention, the same as recommended for ground contact. This allows for a 50-year limited warranty against rot, decay, and termite attack. Pneumatic tools may be used for efficient installation. LifePine shakes are a sawn shake with a grooved exposed surface and, therefore, are a hybrid between a split and resawn shake and a 24-inch royal shingle.

In addition to CCA, LifePine shakes are treated with a permanent water repellant to inhibit splits. Pre-stained colors are available. Material is listed as fire-resistant, with Class B treatment available.

Section 6 - Slate

Information on Section 6: Slate

General Information

Section 6: Slate in NRCA's *2002-03 Steep-Slope Roofing Materials Guide* is a comprehensive listing of slate products commonly used in steep-slope roofing.

Roofing slate is a dense, durable rock material that is basically nonabsorbent. Two properties of slate are cleavage and fracture. It has natural cleavage, which permits it to be easily split in one direction. Fracture, usually occurring at right angles to the cleavage, is called the grain. Roofing slates are commonly split so that the length of the slate runs in the direction of the grain. The surface texture of slate after being split for commercial use derives from the characteristics of the rock from which it was quarried. Some slate splits to a smooth, practically even surface, while other yield a surface that is rough and uneven.

The color of slate is determined by its chemical and mineral composition. Because these factors differ in various regions, roofing slates can be obtained in a variety of colors. In addition, exposure to weather causes slate to change in color. The degree of change varies depending on the slate. Those slates exhibiting minimal color change are known as "permanent" or "unfading". Slate that shows a more marked color change is known as "weathering" slate. Between unfading and weathering is "semi-weathering."

There are several classifications for slate roofs. The first is standard slate, which refers to slate that is generally from 3/16-inch (5 mm) to 1/4-inch (6 mm) thick with uniform length. The category *Standard Smooth* used in item 3 refers to standard slate that has a relatively smooth surface, in comparison with standard rough or just "rough". These slates have a rougher texture and are generally available in thicker pieces. Finally, there are graduated/textural slates; these are designed with varying lengths and thicknesses and are generally rougher than standard slates.

Specific Information Included in the Guide

Specific listing information for slate roofing products is as follows:

1. Company name
2. Product name
3. Textures
4. Sizes
5. Colors available
6. Slope/underlayment recommendations
7. Recommended decks
8. Flashing material
9. Year product first sold
10. Number of squares installed
11. Distribution
12. Technical information
13. Sale and technical information contacts

Reporting of technical information provided in Item 12 is based on American Society for Testing and Materials (ASTM) standard ASTM C406, titled "Standard Specification for Roofing Slate."

Additional information regarding slate roof systems is provided in *The NRCA Roofing and Waterproofing Manual*.

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Index to Slate

Slate	
EVERGREEN SLATE CO., LLC 68 E. Potter Avenue P.O. Box 248 Granville, NY 12832 518/642-2530 FAX: 518/642-9313 E-mail: slate@evergreenslate.com Web site:	208
HILLTOP SLATE INC. P.O. Box 201 Granville, NY 12849 518/642-2270 FAX: 518/642-1220 E-mail: Web site: www.hilltopslate.com	208

Slate	
NORTH COUNTRY SLATE 8800 Sheppard Ave., East Scarborough, ON CANADA M1B 5R4 416/724-4666 or 800/975-2535 FAX: 416/281-8842 E-mail: info@ncslate.com Web site: www.ncslate.com	209

Slate

1. COMPANY NAME	EVERGREEN SLATE COMPANY, LLC	HILLTOP SLATE INC.
2. PRODUCT DESCRIPTION	VERMONT ROOFING SLATE	VERMONT & NEW YORK NATURAL SLATE
3. TEXTURES	THICKNESSES (inches) / WEIGHTS PER ROOF SQUARE (lbs) (Standard 3-in. headlap)	THICKNESSES (inches) / WEIGHTS PER ROOF SQUARE (lbs) (Standard 3-in. headlap)
Standard Smooth	3/16 - 1/4 / 700-800	3/16 - 1/4 / 700-800
Rough	1-4 / 3/8 / 1,000 3/8 - 1/2 / 1,500 1/2 - 3/4 / 2,200 3/4 - 1 / 3,400	3/16 - 1/4 - 3/8 / 825-1,000 FULL 1/4 / 900 FULL 3/8 / 1,100 FULL 1/2 / 1,700 FULL 3/4 / 2,300 FULL 1 / 3,400
Graduated -Textural	3/16, 1/4, 3/8, 1/2, 3/4 / AVG. 1,800	3/16, 1/4, 3/8, 1/2, 3/4, 1 / NA
4. SIZES	LENGTHS (in) / STANDARD WIDTH (in) / EXPOSURE (in) (Standard 3-in. headlap)	LENGTHS (in) / STANDARD WIDTH (in) / EXPOSURE (in) (Standard 3-in. headlap)
	24 / 14, 12 / 10-1/2 22 / 14, 12, 11 / 9-1/2 20 / 14, 12, 11, 10 / 10-1/2 18 / 14, 12, 11, 10, 9 / 7-1/2 16 / 14, 12, 11, 10, 9, 8 / 6-1/2 14 / 14, 12, 11, 10, 9, 8, 7 / 5-1/2 12 / 12, 10, 9, 8, 7, 6 / 4-1/2 10 / 10, 9, 8, 7, 6 / 3-1/2	24 / 16, 14, 12 / 10-1/2 22 / 16, 12, 11, / 9-1/2 20 / 14, 12, 11, 10, / 8-1/2 18 / 14, 12, 11, 10, 9 / 7-1/2 16 / 14, 12, 11, 10, 9, 8, 7 / 6-1/2 14 / 14, 12, 11, 10, 9, 8, 7 / 5-1/2 12 / 12, 10, 9, 8, 7, 6 / 4-1/2 10 / 10, 9, 8, 7, 6 / 3-1/2
5. COLORS AVAILABLE (specify: weathering, semi- weathering, unfading, semi-unfading, or X)		
Black	SEMI-UNFADING, UNFADING	UNFADING
Blue-Black	UNFADING	UNFADING
Gray	SEMI-WEATHERING, UNFADING	SEMI-WEATHERING
Blue-Gray		UNFADING
Gray-Black	SEMI-WEATHERING, UNFADING	SEMI-WEATHERING
Mottled Gray-Black	SEMI-UNFADING	SEMI-WEATHERING
Gray-Green	SEMI-WEATHERING, UNFADING	SEMI-WEATHERING
Green	SEMI-WEATHERING, UNFADING	UNFADING
Mottled Gray-Green	UNFADING	UNFADING
Purple	SEMI-UNFADING	UNFADING
Mottled Purple/Green	UNFADING	UNFADING
Green	SEMI-WEATHERING, UNFADING	SEMI-WEATHERING
Purple - Variegated	SEMI-WEATHERING	UNFADING
Red	UNFADING	UNFADING
6. SLOPE/UNDERLAYMENT RECOMMENDATIONS		
Minimum Slope Recommended in Normal Application (in/ft)	8:12	6:12
Underlayment Recommended In Normal Application	30 LB. FELT	30 LB. FELT
Minimum Slope Recommended For Special Application (in/ft)	4:12	4:12
Underlayment Recommended In Special Application		ICE / WATER SHIELD
7A. RECOMMENDED DECK TYPE		
Solid Sheathing	X	
Spaced Sheathing		
7B. RECOMMENDED DECK MATERIAL		
Plywood/Wood	X	X
Oriented Strand Board		
Wafterboard		
Other (Specify)		
8. FLASHING MATERIAL	COPPER, STAINLESS STEEL	COPPER, LEAD
9. YEAR PRODUCT FIRST SOLD	1916	1948
10. NUMBER OF SQUARES INSTALLED	5 MILLION	350,000
11. DISTRIBUTION		
Distributors (number handling product or no)	--	14
Direct (number of regional service locations or no)	10	2
12. TECHNICAL INFORMATION		
COMPLIES WITH ASTM STANDARD C 406-89 (1996) STANDARD SPECIFICATION FOR ROOFING SLATE) (grade: check one)		
GRADE S ₁ Over 75 years service life	X	X
GRADE S ₂ 40 to 75 years service life		
GRADE S ₃ 20 to 40 years service life		
13. FOR SALES INFORMATION, CONTACT:	D. SCARLOTTA, J. BAKER 518/642-2530	J. CONLON 518/642-2270
FOR TECHNICAL INFORMATION, CONTACT:	D. SCARLOTTA, J. BAKER 518/642-2530	J. CONLON 518/642-2270
14. SEE APPENDIX IF CHECKED		

NA=not applicable

Slate

NORTH COUNTRY SLATE
NATURAL ROOFING SLATE
THICKNESSES (inches) / WEIGHTS PER ROOF SQUARE (lbs) (Standard 3-in. headlap)
3/16 - 1/4 / 650 - 800
1/4 - 3/8 / 800 - 1,200
3/8 - 1/2 / 1,200 - 1,800
3/16, 1/4, 3/8, 1/2
LENGTHS (in) / STANDARD WIDTH (in) / EXPOSURE (in) (Standard 3-in. headlap)
24 / 14, 12 / 10-1/2
22 / 14, 12, 11 / 9-1/2
20 / 14, 12, 11, 10 / 8-1/2
18 / 14, 12, 11, 10, 9 / 7-1/2
16 / 14, 12, 11, 10, 9, 8 / 6-1/2
14 / 14, 12, 11, 10, 9, 8, 7 / 5-1/2
12 / 12, 10, 9, 8, 7, 6 / 4-1/2
UNFADING
UNFADING
SEMI-WEATHERING, UNFADING
SEMI-WEATHERING
UNFADING
UNFADING
SEMI-WEATHERING, UNFADING
UNFADING
SEMI-WEATHERING, UNFADING
UNFADING
UNFADING
8:12
30 LB. FELT
4:12
ICE / WATER SHIELD
X
X
X
2 X 3 WOOD BATTENS
COPPER, LEAD
1988
113,000
4
1
X
DAVE LARGE 800/975-2835
DAVE LARGE 800/975-2835

Appendix

SLATE

Evergreen Slate Company, LLC

On slopes of 8:12 to 4:12, specify 4-inch head laps and use one layer of W.R. Grace Ice and Water Shield for greater protection.

Evergreen Slate royal purple slate holds its color very well.

Section 7 - Underlayment Sheets

Information on Section 7: Underlayment Sheets

General Information

Section 7: Underlayment Sheets in NRCA's *2002-03 Steep-Slope Roofing Materials Guide* is a comprehensive listing of underlayment products used as components of steep-slope roofing.

Underlayments used in steep-slope roofing are generally organic felts, fiberglass mats, composites, or modified bitumen sheets. Coated felts and self-adhering modified sheets are frequently used as eaves flashing, commonly referred to as "ice dam" or "ice shield" protection.

Asphalt-saturated non-perforated organic felts are among the most common underlayments used for shingles; they are commonly designated as Type 15 and Type 30, or referred to as "No. 15" and "No. 30," which is reflective of a once-used pound-per-square weight designation. The saturation process involves impregnating the fibers of the dry felt with asphalt and filling the voids. The coating process involves the application to the top and bottom surface of the sheets with mineral-stabilized coating asphalt. A further step may consist of application of mineral surfacing to one or both sides of the sheet.

Underlayment sheets are used for a variety of steep-slope membrane products. In the case of wood shakes, these sheets are produced in 18-inch widths as "interlayment" felts. Underlayments protect the deck until the roof covering is installed, maintain protection should part of a covering fail, and to separate the covering from the deck. They are usually required for a fire rating classification. They are generally mechanically fastened, but can also be fully adhered – for example, in the case of polymer modified bitumen ice dam protection membrane sheets.

Specific Information Included in the *Guide*

Specific listing information for roofing underlayment products is as follows:

1. Company name
2. Product name or description
3. Product category
4. Product information
5. Availability
6. Recommended for application with
7. Year product first produced
8. Number of squares installed
9. Distribution
10. UL classified prepared roof accessory
11. Complies with (ASTM standards)
12. Accepted by the following codes

13. Sales and technical information contacts

Reporting of technical information in Item 11 is based upon the following American Society for Testing and Materials (ASTM) standards.

- ASTM D224, titled "Standard Specification for Smooth-Surfaced Asphalt Roll Roofing (Organic Felt)"
- ASTM D226, titled "Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing"
- ASTM D2626, titled "Standard Specification for Asphalt-Saturated and Coated Organic Felt Base Sheet Used in Roofing"
- ASTM D4869, titled "Standard Specification for Asphalt-Saturated Organic Felt Shingle Underlayment Used in Roofing"
- ASTM D1970, titled "Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection."

Additional information regarding underlayment is provided in *The NRCA Roofing and Waterproofing Manual*.

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Index to Underlayment Sheets

Underlayment Sheets	
ALCO-NVC, INC. P.O. Box 14001 Detroit, MI 48214 800/323-0029 FAX: 313/331-4726 E-mail: alconvc@aol.com Web site: www.alconvc.com	216
ANDEK CORPORATION P.O. Box 392 Moorestown, NJ 08057 888-G0-ANDEK FAX: 856/786-0580 E-mail: email@andek.com Web site: www.andek.com	217
ATLAS ROOFING CORPORATION 1775 The Exchange, Suite 160 Atlanta, GA 30339 770/933-4476 FAX: 770/984-1517 E-mail: Web site:	217
CERTAINTED CORPORATION ROOFING PRODUCTS GROUP 1400 Union Meeting Rd, P O Box 1100 Blue Bell, PA 19422 800/322-3060 FAX: 610/341-6212 Web site:	219
FIELDS CORPORATION 2240 Taylor Way Tacoma, WA 98421 253/627-4098 FAX: 253/383-2181 E-mail: Web site:	220
GAF MATERIALS CORP. 1361 Alps Road Wayne, NJ 07470 973/628-3000 FAX: 973/628-3356 E-mail: Web site:	223
HENRY COMPANY 3802 Miller Park Drive Garland, TX 75042 877/294-4237 FAX: 800/586-9919 E-mail: sleonard@henry.com Web site:	223

Underlayment Sheets	
MALARKEY ROOFING COMPANY P.O. box 17217 Portland, OR 97217 503/283-1191 FAX: 503/283-5405 E-mail: Web site: www.malarkey-rfg.com	224
OWENS CORNING One Owens Corning Parkway Toledo, OH 45369 419/248-8000 FAX: 419/248-7354 E-mail: Web: www.owenscorning.com	225
TAMKO ROOFING PRODUCTS INC. P.o. Box 1404 220 W. 4th Street Joplin, MO 64801 417/624-6644 FAX: 417/624-8935 Web site: tamko.com	225
TC MIRADRI 2170 Satellite Blvd., Suite 350 Duluth, GA 30097 770/689-2627 770/689-2628 E-mail: g.nix@prodigy.net Web site:	229
WARRIOR ROOFING MFG., INC. P.O. Box 40185 Tuscaloosa, AL 35404 205/553-1734 FAX: 205/553-1755 E-mail: Web site:	229
W. R. GRACE & CO. - CONN. 62 Whitmore Avenue Cambridge, MA 02140 617/876-1400 FAX: 617/498-2643 E-mail: Web site: www.gcp-grace.com	231

Underlayment Sheets

1. COMPANY NAME	ALCO-NVC INC.	ALCO-NVC INC.	ALCO-NVC INC.
2. PRODUCT NAME OR DESCRIPTION	ALCO SHIELD ICE AND WATER PROTECTOR 100	ALCO SHIELD ICE AND WATER PROTECTOR 195	ALCO SHEILD ICE AND WATER PROTECTOR 200
3. PRODUCT CATEGORY			
A. Organic Asphalt-Saturated Felt, Unperforated			
B. Organic Asphalt-Saturated Felt, Coated			
C. Asphatl Fiberglass Felt			
D. Special "Ice Shield" Underlayment	X	X	X
4A. PRODUCT INFORMATION (FOR PRODUCTS IN CATEGORY 3A, 3B, OR 3C)			
Type (ASTM standard [specify] or generic)			
Available as Sepcialty Underlayment (type, e.g., shake felt)			
Sheet Width (inches)			
Size Per Roll (sq. ft.)			
Weight Per Roll (pounds)			
4B. PRODUCT INFORMATION (FOR PRODUCTS IN CATEGORY 3D)			
Kind of Sheet(s) (e.g., felts, modified bitumen)	MODIFIED BITUMEN	MODIFIED BITUMEN	MODIFIED BITUMEN
Number Of Ply(ies)/Sheets Comprising Underlayment	1	1	1
Waterproofing Medium (e.g., asphalt, modified asphalt)	MODIFIED ASPHALT	MODIFIED ASPHALT	MODIFIED ASPHALT
Application Method (e.g., mechanical, mopped, self-adhered)	SELF-ADHERED	SELF-ADHERED	SELF-ADHERED
Sheet Width (inches)	36	36	36
Size Per Roll (sq. ft.)	100	195	200
Weight Per Roll (pounds)	39	76	78
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO	NO
6. RECOMMENDED FOR APPLICATION WITH:			
Asphalt Shingles	X	X	X
Fiber-Cement Roof Components			
Clay Tile	X	X	X
Concrete Tile	X	X	X
Metal Roof Components	X		
Slate	X	X	X
Wood Shakes/Shingles	X	X	X
Other (specify)			
7. YEAR PRODUCT FIRST SOLD	1996	1996	1996
8. NUMBER OF SQUARES INSTALLED			
9. DISTRIBUTION			
Distributors (number handling product or no)	125	125	125
Direct (number of regional service locations or no)			
10. UL-CLASSIFIED PREPARED ROOFING ACCESSORY (yes/no)	YES	YES	YES
COMPLIES WITH:			
11A. ASTM D 224-89 STANDARD SPECIFICATION FOR SMOOTH-SURFACED ASPHALT ROLL ROOFING (ORGANIC FELT) (type or NA)	NA	NA	NA
Type I-Minimum net mass per unit area of roofing, 39.8lb/100 ft ²			
Type II-Minimum net mass per unit area of roofing, 54.6 lb/100 ft ²			
Type III-Minimum net mass per unit area of roofing, 51.1lb/100 ft ²			
Type IV-Minimum net mass per unit area of roofing, 39.8 lb/100 ft ²			
11B. ASTM D 226-97 STANDARD SPECIFICATION FOR ASPHALT-SATURATED ORGANIC FELT USED IN ROOFING & WATERPROOFING (type or NA)	NA	NA	NA
Type I-Commonly called No. 15 asphalt felt			
Type II-Commonly called No. 30 asphalt felt			
11C. ASTM D 2626-97 STANDARD SPECIFICATION FOR ASPHALT-SATURATED AND COATED ORGANIC FELT BASE SHEET USED IN ROOFING (yes, no or NA)	NA	NA	NA
11D. ASTM D 4869-88 (1993) STANDARD SPECIFICATION FOR ASPHALT - SATURATED ORGANIC FELT SHINGLE UNDERLAYMENT USED IN ROOFING	NA	NA	NA
Type I-Shingle Underlayment			
Type II-Heavy Duty Shingle Underlayment			
11E. ASTM D 1970-00 STANDARD SPECIFICATION FOR SELF-ADHERING POLYMER MODIFIED BITUMINOUS SHEET MATERIAL USED AS STEEP ROOFING UNDERLAYMENT FOR ICE DAM PROTECTOIN (yes, no, or NA)	YES	YES	YES
11F. OTHER ASTM SPECIFICATION (specify)			
12. ACCEPTED BY THE FOLLOWING CODES			
13. FOR SALES INFORMATION, CONTACT:	E. KARPINSKI 800/323-0029	E. KARPINSKI 800/323-0029	E. KARPINSKI 800/323-0029
FOR TECHNICAL INFORMATION, CONTACT:	B. BAIR 800/323-0029	B. BAIR 800/323-0029	B. BAIR 800/323-0029
14. SEE APPENDIX IF CHECKED			

NA=not applicable

Underlayment Sheets

ALCO-NVC INC.	ANDEK CORPORATION	ATLAS ROOFING CORPORATION	ATLAS ROOFING CORPORATION	ATLAS ROOFING CORPORATION	ATLAS ROOFING CORPORATION
ALCO SHIELD ICE AND WATER PROTECTOR 225	FLASHBAND	NO. 15 STANDARD SATURATED FELT	NO. 30 STANDARD SATURATED FELT	NO. 15 ASTM D 4869 FELT	NO. 30 ASTM D 4869 FELT
		X	X	X	X
X	X				
		TYPE I	TYPE II	TYPE I	TYPE II
		36	36	36	36
		432	216	432	216
MODIFIED BITUMEN 1	MODIFIED BITUMEN 1				
MODIFIED ASPHALT SELF-ADHERED	MODIFIED ASPHALT SELF-ADHERED				
36	28				
225	77				
88	33				
NO	NO	NO	NO	NO	NO
X	X	X	X	X	X
	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X	X	X
1996	1973	1982	1982	1982	1982
	3.5 MILLION	500+	500+	500+	500+
125	127				
	14				
YES		NO	NO	NO	NO
NA	NA				
NA	NA			X	X
NA	NA				
NA	NA				
		X		X	
			X		
YES	YES	NA	NA	NA	NA
	ICBO			BOCA, ICBO, IBC, SBCCI	BOCA, ICBO, IBC, SBCCI
E. KARPINSKI 800/323-0029	H. LISS 800/800-2844	ATLAS REGIONAL SALES OFFICES (SEE APPENDIX)	ATLAS REGIONAL SALES OFFICES (SEE APPENDIX)	ATLAS REGIONAL SALES OFFICES (SEE APPENDIX)	ATLAS REGIONAL SALES OFFICES (SEE APPENDIX)
B. BAIR 800/323-0029	N. SHEARER 800/800-2844	601/481-1470	601/481-1470	601/481-1470	601/481-1470
		X	X	X	X

Underlayment Sheets

1. COMPANY NAME	ATLAS ROOFING CORPORATION	ATLAS ROOFING CORPORATION	ATLAS ROOFING CORPORATION
2. PRODUCT NAME OR DESCRIPTION	NO. 15 ASTM D 226 SPECIFICATION FELT	NO. 30 ASTM D 226 SPECIFICATION FELT	STORMMASTER DG ICE AND WATER PROTECTION
3. PRODUCT CATEGORY			
A. Organic Asphalt-Saturated Felt, Unperforated	X	X	
B. Organic Asphalt-Saturated Felt, Coated			
C. Asphalt Fiberglass Felt			
D. Special "Ice Shield" Underlayment			X
4A. PRODUCT INFORMATION (FOR PRODUCTS IN CATEGORY 3A, 3B, OR 3C)			
Type (ASTM standard [specify] or generic)	TYPE I (D226)	TYPE II (D226)	
Available as Specialty Underlayment (type, e.g., shake felt)	X	X	
Sheet Width (inches)	36	36	
Size Per Roll (sq. ft.)	432	216	
Weight Per Roll (pounds)			
4B. PRODUCT INFORMATION (FOR PRODUCTS IN CATEGORY 3D)			
Kind of Sheet(s) (e.g., felts, modified bitumen)			MODIFIED BITUMEN
Number Of Ply(ies)/Sheets Comprising Underlayment			1
Waterproofing Medium (e.g., asphalt, modified asphalt)			SBS
Application Method (e.g., mechanical, mopped, self-adhered)			SELF ADHERED
Sheet Width (inches)			36
Size Per Roll (sq. ft.)			200
Weight Per Roll (pounds)			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO	NO
6. RECOMMENDED FOR APPLICATION WITH:			
Asphalt Shingles	X	X	X
Fiber-Cement Roof Components	X	X	X
Clay Tile	X	X	X
Concrete Tile	X	X	X
Metal Roof Components	X	X	X
Slate	X	X	X
Wood Shakes/Shingles	X	X	X
Other (specify)			
7. YEAR PRODUCT FIRST SOLD	1982	1982	1985
8. NUMBER OF SQUARES INSTALLED	500+	500+	
9. DISTRIBUTION			
Distributors (number handling product or no)			
Direct (number of regional service locations or no)			
10. UL-CLASSIFIED PREPARED ROOFING ACCESSORY (yes/no)			
COMPLIES WITH:			
11A. ASTM D 224-89 STANDARD SPECIFICATION FOR SMOOTH-SURFACED ASPHALT ROLL ROOFING (ORGANIC FELT) (type or NA)			
Type I—Minimum net mass per unit area of roofing, 39.8lb/100 ft ²			
Type II—Minimum net mass per unit area of roofing, 54.6 lb/100 ft ²			
Type III—Minimum net mass per unit area of roofing, 51.1lb/100 ft ²			
Type IV—Minimum net mass per unit area of roofing, 39.8 lb/100 ft ²			
11B. ASTM D 226-97 STANDARD SPECIFICATION FOR ASPHALT-SATURATED ORGANIC FELT USED IN ROOFING & WATERPROOFING (type or NA)			
Type I—Commonly called No. 15 asphalt felt	X		
Type II—Commonly called No. 30 asphalt felt		X	
11C. ASTM D 2626-97 STANDARD SPECIFICATION FOR ASPHALT-SATURATED AND COATED ORGANIC FELT BASE SHEET USED IN ROOFING (yes, no or NA)			
11D. ASTM D 4869-88 (1993) STANDARD SPECIFICATION FOR ASPHALT - SATURATED ORGANIC FELT SHINGLE UNDERLAYMENT USED IN ROOFING			
Type I—Shingle Underlayment			
Type II—Heavy Duty Shingle Underlayment			
11E. ASTM D 1970-00 STANDARD SPECIFICATION FOR SELF-ADHERING POLYMER MODIFIED BITUMINOUS SHEET MATERIAL USED AS STEEP ROOFING UNDERLAYMENT FOR ICE DAM PROTECTION (yes, no, or NA)			YES
11F. OTHER ASTM SPECIFICATION (specify)			
12. ACCEPTED BY THE FOLLOWING CODES	BOCA, IBC, ICBO, SBCCI	BOCA, IBC, IBCO, METRO-DADE, SBCCI	BOCA, IBC, IBCO, METRO-DADE, SBCCI
13. FOR SALES INFORMATION, CONTACT:	ATLAS REGIONAL SALES OFFICES (SEE APPENDIX)	ATLAS REGIONAL SALES OFFICES (SEE APPENDIX)	ATLAS REGIONAL SALES OFFICES (SEE APPENDIX)
FOR TECHNICAL INFORMATION, CONTACT:	601/481-1470	601/481-1470	770/933-4478
14. SEE APPENDIX IF CHECKED	X	X	X

NA=not applicable

Underlayment Sheets

ATLAS ROOFING CORPORATION	ATLAS ROOFING CORPORATION	ATLAS ROOFING CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION
NO. 43 BASE SHEET	SLATE / TILE UNDERLAYMENT	PREMIUM FLAT FELT (PFF)	ROOFERS' SELECT	WINTERGUARD WATERPROOFING SHINGLE UNDERLAYMENT	#15 PLAIN FELT - UL
		X	X		X
X	X		X		
				X	
ASTM D 226	TYPE II (D 249)		COMPOSITE		TYPE I (D 266)
36	36	36	36		36
216	108	432	432		432
			44		54
				MODIFIED ASPHALT 1	
				MODIFIED ASPHALT SELF-ADHERED	
				36	
				195/97.5	
				69/36	
	NO		NO	NO	YES
		X	X	X	X
	X			X	
	X			X	
		X			
	X	X		X	
		X		X	
	1982	1989	1998	1987	
		500+			
	500+				
			YES	YES	YES
			NA	NA	NA
			NA	NA	X
YES			NA	NA	NA
			NA	NA	YES
			NA	YES	NA
	ASTM D 249				
BOCA, IBC, IBCO, METRO-DADE, SBCCI	BOCA, IBC, IBCO, METRO-DADE, SBCCI		WISCONSIN DILHR	WISCONSIN DILHR	ICBO, MIAMI-DADE CNTY, FL
ATLAS REGIONAL SALES OFFICES (SEE APPENDIX) 770/933-4478	ATLAS REGIONAL SALES OFFICES (SEE APPENDIX) 770/933-4478	ATLAS REGIONAL SALES OFFICES (SEE APPENDIX) 770/933-4478	LOCAL OFFICE	LOCAL OFFICE	LOCAL OFFICE
			800/322-3060	800/322-3060	800/322-3060
X	X	X	X	X	X

Underlayment Sheets

1. COMPANY NAME	CERTAINTED CORPORATION	FIELDS COMPANY, LLC	FIELDS COMPANY, LLC
2. PRODUCT NAME OR DESCRIPTION	#30 PLAIN FELT - UL	F10 SHAKELINER	F12 SHAKELINER
3. PRODUCT CATEGORY			
A. Organic Asphalt-Saturated Felt, Unperforated	X	X	X
B. Organic Asphalt-Saturated Felt, Coated			
C. Asphalt Fiberglass Felt			
D. Special "Ice Shield" Underlayment			
4A. PRODUCT INFORMATION (FOR PRODUCTS IN CATEGORY 3A, 3B, OR 3C)			
Type (ASTM standard [specify] or generic)	TYPE II (D 266)	NO. 30	NO. 30
Available as Specialty Underlayment (type, e.g., shake felt)		SHAKE FELT	SHAKE FELT
Sheet Width (inches)	36	18	18
Size Per Roll (sq. ft.)	216	180	180
Weight Per Roll (pounds)	54	26	29
4B. PRODUCT INFORMATION (FOR PRODUCTS IN CATEGORY 3D)			
Kind of Sheet(s) (e.g., felts, modified bitumen)			
Number Of Ply(ies)/Sheets Comprising Underlayment			
Waterproofing Medium (e.g., asphalt, modified asphalt)			
Application Method (e.g., mechanical, mopped, self-adhered)			
Sheet Width (inches)			
Size Per Roll (sq. ft.)			
Weight Per Roll (pounds)			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	YES	NO	NO
6. RECOMMENDED FOR APPLICATION WITH:			
Asphalt Shingles	X		
Fiber-Cement Roof Components			
Clay Tile			
Concrete Tile			
Metal Roof Components			
Slate			
Wood Shakes/Shingles		X	X
Other (specify)			
7. YEAR PRODUCT FIRST SOLD		1988	1988
8. NUMBER OF SQUARES INSTALLED		10 MILLION +	10 MILLION +
9. DISTRIBUTION			
Distributors (number handling product or no)		1,000 +	1,000 +
Direct (number of regional service locations or no)			
10. UL-CLASSIFIED PREPARED ROOFING ACCESSORY (yes/no)	YES	NO	NO
COMPLIES WITH:			
11A. ASTM D 224-89 STANDARD SPECIFICATION FOR SMOOTH-SURFACED ASPHALT ROLL ROOFING (ORGANIC FELT) (type or NA)	NA	NA	NA
Type I—Minimum net mass per unit area of roofing, 39.8lb/100 ft ²			
Type II—Minimum net mass per unit area of roofing, 54.6 lb/100 ft ²			
Type III—Minimum net mass per unit area of roofing, 51.1lb/100 ft ²			
Type IV—Minimum net mass per unit area of roofing, 39.8 lb/100 ft ²			
11B. ASTM D 226-97 STANDARD SPECIFICATION FOR ASPHALT-SATURATED ORGANIC FELT USED IN ROOFING & WATERPROOFING (type or NA)			
Type I—Commonly called No. 15 asphalt felt			
Type II—Commonly called No. 30 asphalt felt	X		
11C. ASTM D 2626-97 STANDARD SPECIFICATION FOR ASPHALT-SATURATED AND COATED ORGANIC FELT BASE SHEET USED IN ROOFING (yes, no or NA)	YES	NA	NA
11D. ASTM D 4869-88 (1993) STANDARD SPECIFICATION FOR ASPHALT - SATURATED ORGANIC FELT SHINGLE UNDERLAYMENT USED IN ROOFING		NA	NA
Type I—Shingle Underlayment			
Type II—Heavy Duty Shingle Underlayment			
11E. ASTM D 1970-00 STANDARD SPECIFICATION FOR SELF-ADHERING POLYMER MODIFIED BITUMINOUS SHEET MATERIAL USED AS STEEP ROOFING UNDERLAYMENT FOR ICE DAM PROTECTION (yes, no, or NA)	NA	NA	NA
11F. OTHER ASTM SPECIFICATION (specify)			
12. ACCEPTED BY THE FOLLOWING CODES	ICBO, MIAMI-DADE CNTY, FL		
13. FOR SALES INFORMATION, CONTACT:	LOCAL OFFICE	M. FIELDS 800/627-4098	M. FIELDS 800/627-4098
FOR TECHNICAL INFORMATION, CONTACT:	800/322-3060	T. VANDERLINDA 800/627-4098	T. VANDERLINDA 800/627-4098
14. SEE APPENDIX IF CHECKED	X		

NA=not applicable

Underlayment Sheets

FIELDS COMPANY, LLC	FIELDS COMPANY, LLC	FIELDS COMPANY, LLC	FIELDS COMPANY, LLC	FIELDS COMPANY, LLC	FIELDS COMPANY, LLC
F 15 TYPE 30 ASTM SHAKELINER	F 20 2-SQUARE SHAKELINER	F 22 2-SQUARE NO. 30 FELT	F 25 2-SQUARE TYPE 30 ASTM FELT	F 30 3-SQUARE NO. 15 FELT	F 32 3-SQUARE NO. 15 FELT
X	X	X	X	X	X
TYPE II (D226) SHAKE FELT	NO. 30	NO. 30	TYPE II (D 226)	NO. 15	NO. 15
18	36	36	36	36	36
180	200	216	216	300	324
46	29	35	56	21	30
NO	NO	NO	NO	NO	NO
	X	X	X	X	X
	X	X	X	X	X
	X	X	X	X	X
	X	X	X	X	X
	X	X	X	X	X
	X	X	X	X	X
X					
1988	1988	1988	1988	1988	1988
10 MILLION +	10 MILLION +	10 MILLION +	10 MILLION +	10 MILLION +	10 MILLION +
1,000 +	1,000 +	1,000 +	1,000 +	1,000 +	1,000 +
YES	NO	NO	YES	NO	NO
NA	NA	NA	NA	NA	NA
TYPE II			TYPE II		
NA	NA	NA	NA	NA	NA
NA					
NA	NA	NA	NA	NA	NA
M. FIELDS 800/627-4098	M. FIELDS 800/627-4098	M. FIELDS 800/627-4098	M. FIELDS 800/627-4098	M. FIELDS 800/627-4098	M. FIELDS 800/627-4098
T. VANDERLINDA 800/627-4098	T. VANDERLINDA 800/627-4098	T. VANDERLINDA 800/627-4098	T. VANDERLINDA 800/627-4098	T. VANDERLINDA 800/627-4098	T. VANDERLINDA 800/627-4098

Underlayment Sheets

1. COMPANY NAME	FIELDS COMPANY, LLC	FIELDS COMPANY, LLC	FIELDS COMPANY, LLC
2. PRODUCT NAME OR DESCRIPTION	F 35 3-SQUARE TYPE 15 ASTM FELT	F 40 4-SQUARE NO. 15 FELT	F 42 4-SQUARE NO. 15 FELT
3. PRODUCT CATEGORY			
A. Organic Asphalt-Saturated Felt, Unperforated	X	X	X
B. Organic Asphalt-Saturated Felt, Coated			
C. Asphalt Fiberglass Felt			
D. Special "Ice Shield" Underlayment			
4A. PRODUCT INFORMATION (FOR PRODUCTS IN CATEGORY 3A, 3B, OR 3C)			
Type (ASTM standard [specify] or generic)	TYPE 1 (D 226)	NO. 15	NO. 15
Available as Specialty Underlayment (type, e.g., shake felt)			
Sheet Width (inches)	36	36	36
Size Per Roll (sq. ft.)	324	400	432
Weight Per Roll (pounds)	38	34	40
4B. PRODUCT INFORMATION (FOR PRODUCTS IN CATEGORY 3D)			
Kind of Sheet(s) (e.g., felts, modified bitumen)			
Number Of Ply(ies)/Sheets Comprising Underlayment			
Waterproofing Medium (e.g., asphalt, modified asphalt)			
Application Method (e.g., mechanical, mopped, self-adhered)			
Sheet Width (inches)			
Size Per Roll (sq. ft.)			
Weight Per Roll (pounds)			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO	NO
6. RECOMMENDED FOR APPLICATION WITH:			
Asphalt Shingles	X	X	X
Fiber-Cement Roof Components	X	X	X
Clay Tile	X	X	X
Concrete Tile	X	X	X
Metal Roof Components	X	X	X
Slate	X	X	X
Wood Shakes/Shingles			
Other (specify)			
7. YEAR PRODUCT FIRST SOLD	1988	1988	1988
8. NUMBER OF SQUARES INSTALLED	10 MILLION +	10 MILLION +	10 MILLION +
9. DISTRIBUTION			
Distributors (number handling product or no)	1,000 +	1,000 +	1,000 +
Direct (number of regional service locations or no)			
10. UL-CLASSIFIED PREPARED ROOFING ACCESSORY (yes/no)	YES	NO	NO
COMPLIES WITH:			
11A. ASTM D 224-89 STANDARD SPECIFICATION FOR SMOOTH-SURFACED ASPHALT ROLL ROOFING (ORGANIC FELT) (type or NA)	NA	NA	NA
Type I—Minimum net mass per unit area of roofing, 39.8lb/100 ft ²			
Type II—Minimum net mass per unit area of roofing, 54.6 lb/100 ft ²			
Type III—Minimum net mass per unit area of roofing, 51.1lb/100 ft ²			
Type IV—Minimum net mass per unit area of roofing, 39.8 lb/100 ft ²			
11B. ASTM D 226-97 STANDARD SPECIFICATION FOR ASPHALT-SATURATED ORGANIC FELT USED IN ROOFING & WATERPROOFING (type or NA)			
Type I—Commonly called No. 15 asphalt felt	TYPE I		
Type II—Commonly called No. 30 asphalt felt			
11C. ASTM D 2626-97 STANDARD SPECIFICATION FOR ASPHALT-SATURATED AND COATED ORGANIC FELT BASE SHEET USED IN ROOFING (yes, no or NA)	NA	NA	NA
11D. ASTM D 4869-88 (1993) STANDARD SPECIFICATION FOR ASPHALT - SATURATED ORGANIC FELT SHINGLE UNDERLAYMENT USED IN ROOFING			
Type I—Shingle Underlayment			
Type II—Heavy Duty Shingle Underlayment			
11E. ASTM D 1970-00 STANDARD SPECIFICATION FOR SELF-ADHERING POLYMER MODIFIED BITUMINOUS SHEET MATERIAL USED AS STEEP ROOFING UNDERLAYMENT FOR ICE DAM PROTECTION (yes, no, or NA)	NA	NA	NA
11F. OTHER ASTM SPECIFICATION (specify)			
12. ACCEPTED BY THE FOLLOWING CODES			
13. FOR SALES INFORMATION, CONTACT:	M. FIELDS 800/627-4098	M. FIELDS 800/627-4098	M. FIELDS 800/627-4098
FOR TECHNICAL INFORMATION, CONTACT:	T. VANDERLINDA 800/627-4098	T. VANDERLINDA 800/627-4098	T. VANDERLINDA 800/627-4098
14. SEE APPENDIX IF CHECKED			

NA=not applicable

Underlayment Sheets

FIELDS COMPANY, LLC	GAF MATERIALS CORP.	GAF MATERIALS CORP.	GAF MATERIALS CORP.	HENRY COMPANY	HENRY COMPANY
F 45 4-SQUARE TYPE 15 ASTM FELT	SHINGLE-MATE	WEATHER WATCH	STORMGUARD WATERPROOF UNDERLAYMENT	EAVEGUARD SHINGLE UNDERLAYMENT	PERMA SEAL FG METAL ROOF & TILE UNDERLAYMENT
X					
	X				
		X	X	X	
TYPE I (D 226)	COMPOSITE				
36	36				
432	400				
53	30				
		MODIFIED BITUMEN 1	MODIFIED BITUMEN 1	MODIFIED BITUMEN 1	MODIFIED BITUMEN
		MODIFIED ASPHALT SELF-ADHERING	MODIFIED ASPHALT SELF-ADHERING	SELF-ADHESIVE	SELF-ADHESIVE
		36	36	36	36
		150	200	100/195/225	225
		70	67	35/69/75	70
NO	NO	NO	NO	NO	NO
X	X	X	X	X	X
X		X	X		X
X					X
X					X
X				X	X
X				X	X
1988	1984	1987	1997	1983	1990
10 MILLION +				1,000,000+	
1,000 +				400+	200+
				NO	NO
YES	NO	YES	YES	YES	NO
NA	NA	NA	NA		
TYPE I	NA	NA	NA		
NA	NA	NA	NA		
	NA	NA	NA		
NA	NA	NO	NO	YES	
BOCA ICBO SBCCI					
M. FIELDS 800/627-4098	GAF REGIONAL SALES OFFICE	GAF REGIONAL SALES OFFICE	GAF REGIONAL SALES OFFICE	L. HAMILTON 800/486-1278	L. HAMILTON 800/486-1278
T. VANDERLINDA 800/627-4098	800/ROOF-411	800/ROOF-411	800/ROOF-411	S. LEONARD 800/486-1278	S. LEONARD 800/486-1278
	X	X	X		

Underlayment Sheets

1. COMPANY NAME	HENRY COMPANY	HENRY COMPANY	MALARKEY ROOFING COMPANY
2. PRODUCT NAME OR DESCRIPTION	PERMA SEAL PE 200 HT METAL ROOF & TILE UNDERLAYMENT	RF 100 METAL ROOF UNDERLAYMENT	ARCTIC SEAL #170
3. PRODUCT CATEGORY			
A. Organic Asphalt-Saturated Felt, Unperforated			
B. Organic Asphalt-Saturated Felt, Coated			
C. Asphalt Fiberglass Felt			
D. Special "Ice Shield" Underlayment			X
4A. PRODUCT INFORMATION (FOR PRODUCTS IN CATEGORY 3A, 3B, OR 3C)			
Type (ASTM standard [specify] or generic)			
Available as Specialty Underlayment (type, e.g., shake felt)			
Sheet Width (inches)			
Size Per Roll (sq. ft.)			
Weight Per Roll (pounds)			
4B. PRODUCT INFORMATION (FOR PRODUCTS IN CATEGORY 3D)			
Kind of Sheet(s) (e.g., felts, modified bitumen)	MODIFIED BITUMEN	MODIFIED BITUMEN	MODIFIED BITUMEN
Number Of Ply(ies)/Sheets Comprising Underlayment	1	1	1
Waterproofing Medium (e.g., asphalt, modified asphalt)			MODIFIED ASPHALT
Application Method (e.g., mechanical, mopped, self-adhered)	SELF-ADHESIVE	SELF-ADHESIVE	SELF-ADHERING
Sheet Width (inches)	36	36	39 3/8
Size Per Roll (sq. ft.)	225	225	225
Weight Per Roll (pounds)	58	89	81
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO	NO
6. RECOMMENDED FOR APPLICATION WITH:			
Asphalt Shingles	X		X
Fiber-Cement Roof Components	X		X
Clay Tile	X		X
Concrete Tile	X		X
Metal Roof Components	X	X	X
Slate	X		X
Wood Shakes/Shingles	X		X
Other (specify)			WATERPROOFING
7. YEAR PRODUCT FIRST SOLD	1998	2000	2001
8. NUMBER OF SQUARES INSTALLED			
9. DISTRIBUTION			
Distributors (number handling product or no)	200+	200+	100+
Direct (number of regional service locations or no)	NO	NO	
10. UL-CLASSIFIED PREPARED ROOFING ACCESSORY (yes/no)	NO	NO	
COMPLIES WITH:			
11A. ASTM D 224-89 STANDARD SPECIFICATION FOR SMOOTH-SURFACED ASPHALT ROLL ROOFING (ORGANIC FELT) (type or NA)			NA
Type I—Minimum net mass per unit area of roofing, 39.8lb/100 ft ²			
Type II—Minimum net mass per unit area of roofing, 54.6 lb/100 ft ²			
Type III—Minimum net mass per unit area of roofing, 51.1lb/100 ft ²			
Type IV—Minimum net mass per unit area of roofing, 39.8 lb/100 ft ²			
11B. ASTM D 226-97 STANDARD SPECIFICATION FOR ASPHALT-SATURATED ORGANIC FELT USED IN ROOFING & WATERPROOFING (type or NA)			NA
Type I—Commonly called No. 15 asphalt felt			
Type II—Commonly called No. 30 asphalt felt			
11C. ASTM D 2626-97 STANDARD SPECIFICATION FOR ASPHALT-SATURATED AND COATED ORGANIC FELT BASE SHEET USED IN ROOFING (yes, no or NA)			NA
11D. ASTM D 4869-88 (1993) STANDARD SPECIFICATION FOR ASPHALT - SATURATED ORGANIC FELT SHINGLE UNDERLAYMENT USED IN ROOFING			NA
Type I—Shingle Underlayment			
Type II—Heavy Duty Shingle Underlayment			
11E. ASTM D 1970-00 STANDARD SPECIFICATION FOR SELF-ADHERING POLYMER MODIFIED BITUMINOUS SHEET MATERIAL USED AS STEEP ROOFING UNDERLAYMENT FOR ICE DAM PROTECTION (yes, no, or NA)			YES
11F. OTHER ASTM SPECIFICATION (specify)			
12. ACCEPTED BY THE FOLLOWING CODES			ICBO
13. FOR SALES INFORMATION, CONTACT:	L. HAMILTON 800/486-1278	L. HAMILTON 800/486-1278	G. MALARKEY 800/545-1191
FOR TECHNICAL INFORMATION, CONTACT:	S. LEONARD 800/486-1278	S. LEONARD 800/486-1278	D. DeGROOT J. KOUBA
14. SEE APPENDIX IF CHECKED			

NA=not applicable

Underlayment Sheets

MALARKEY ROOFING COMPANY	OWENS CORNING	OWENS CORNING	OWENS CORNING	OWENS CORNING	TAMKO ROOFING PRODUCTS, INC.
#501 UDL SBS UNDERLAYMENT	WEATHERLOCK G GRANULATED SURFACE	WEATHERLOCK M MAT FACED	WEATHERLOCK P NON-REINFORCED	WEATHERLOCK METAL HIGH TEMPERATURE	SHAKE UNDERLAYMENT
					X
X	X	X	X	X	
4601					SHAKE FELT
39					18
200					180
75					27
MODIFIED BITUMEN 1	MODIFIED BITUMEN 1	MODIFIED BITUMEN 1	MODIFIED BITUMEN 1	MODIFIED BITUMEN 1	
MODIFIED ASPHALT	MODIFIED ASPHALT SELF-ADHERING	MODIFIED ASPHALT SELF-ADHERING	MODIFIED BITUMEN SELF-ADHERING	MODIFIED BITUMEN SELF-ADHERING	
39 3/8	36	36	36	36	
200	100/200	100/200	225	200	
80					
NO	YES	YES	YES	YES	NO
X	X	X	X	X	
X	X	X	X	X	
X	X	X	X	X	
X	X	X	X	X	
X	X	X	X	X	
X	X	X	X	X	X
1997	1997	1999	2001	2000	
100+					
					NO
NA	NA	NA	NA	NA	NA
		NA	NA	NA	NA
X					
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA		NA			NA
		ICBO ER 4991	ICBO ER 4991		
G. MALARKEY 800/545-1191	800/GET-PINK	800/GET PINK	800/GET PINK	800/GET-PINK	DISTRICT OFFICE
D. DeGROOT J. KOUBA	800/GET-PINK	800/GET PINK	800/GET PINK	800/GET-PINK	TECHNICAL SERVICES 417/624-6644

Underlayment Sheets

1. COMPANY NAME	TAMKO ROOFING PRODUCTS, INC.	TAMKO ROOFING PRODUCTS, INC.	TAMKO ROOFING PRODUCTS, INC.
2. PRODUCT NAME OR DESCRIPTION	MASTER SMOOTH	NAIL-FAST	NO. 30 UL
3. PRODUCT CATEGORY			
A. Organic Asphalt-Saturated Felt, Unperforated			X
B. Organic Asphalt-Saturated Felt, Coated	X	X	
C. Asphalt Fiberglass Felt			
D. Special "Ice Shield" Underlayment			
4A. PRODUCT INFORMATION (FOR PRODUCTS IN CATEGORY 3A, 3B, OR 3C)			
Type (ASTM standard [specify] or generic)	CLASS S TYPE IV (D 6380)	CLASS 5 TYPE IV (D6380)	TYPE II (D 226)
Available as Specialty Underlayment (type, e.g., shake felt)		TILE UNDERLAYMENT	
Sheet Width (inches)	36	36	36
Size Per Roll (sq. ft.)	108	164	216
Weight Per Roll (pounds)	55	65	59
4B. PRODUCT INFORMATION (FOR PRODUCTS IN CATEGORY 3D)			
Kind of Sheet(s) (e.g., felts, modified bitumen)			
Number Of Ply(ies)/Sheets Comprising Underlayment			
Waterproofing Medium (e.g., asphalt, modified asphalt)			
Application Method (e.g., mechanical, mopped, self-adhered)			
Sheet Width (inches)			
Size Per Roll (sq. ft.)			
Weight Per Roll (pounds)			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO	NO
6. RECOMMENDED FOR APPLICATION WITH:			
Asphalt Shingles	X	X	X
Fiber-Cement Roof Components			
Clay Tile			
Concrete Tile		X	
Metal Roof Components		X	
Slate			
Wood Shakes/Shingles		X	
Other (specify)			
7. YEAR PRODUCT FIRST SOLD			
8. NUMBER OF SQUARES INSTALLED			
9. DISTRIBUTION			
Distributors (number handling product or no)			
Direct (number of regional service locations or no)			
10. UL-CLASSIFIED PREPARED ROOFING ACCESSORY (yes/no)	NO		YES
COMPLIES WITH:			
11A. ASTM D 224-89 STANDARD SPECIFICATION FOR SMOOTH-SURFACED ASPHALT ROLL ROOFING (ORGANIC FELT) (type or NA)			NA
Type I—Minimum net mass per unit area of roofing, 39.8lb/100 ft ²	TYPE I	TYPE I	
Type II—Minimum net mass per unit area of roofing, 54.6 lb/100 ft ²			
Type III—Minimum net mass per unit area of roofing, 51.1lb/100 ft ²			
Type IV—Minimum net mass per unit area of roofing, 39.8 lb/100 ft ²			
11B. ASTM D 226-97 STANDARD SPECIFICATION FOR ASPHALT-SATURATED ORGANIC FELT USED IN ROOFING & WATERPROOFING (type or NA)	NA	NA	
Type I—Commonly called No. 15 asphalt felt			
Type II—Commonly called No. 30 asphalt felt			X
11C. ASTM D 2626-97 STANDARD SPECIFICATION FOR ASPHALT-SATURATED AND COATED ORGANIC FELT BASE SHEET USED IN ROOFING (yes, no or NA)	NA	YES	NA
11D. ASTM D 4869-88 (1993) STANDARD SPECIFICATION FOR ASPHALT - SATURATED ORGANIC FELT SHINGLE UNDERLAYMENT USED IN ROOFING	NA	NA	NA
Type I—Shingle Underlayment			
Type II—Heavy Duty Shingle Underlayment			
11E. ASTM D 1970-00 STANDARD SPECIFICATION FOR SELF-ADHERING POLYMER MODIFIED BITUMINOUS SHEET MATERIAL USED AS STEEP ROOFING UNDERLAYMENT FOR ICE DAM PROTECTION (yes, no, or NA)	NA	NA	NA
11F. OTHER ASTM SPECIFICATION (specify)			
12. ACCEPTED BY THE FOLLOWING CODES			METRO-DADE COUNTY, FL
13. FOR SALES INFORMATION, CONTACT:	DISTRICT OFFICE	DISTRICT OFFICE	DISTRICT OFFICE
FOR TECHNICAL INFORMATION, CONTACT:	TECHNICAL SERVICES 417/624-6644	TECHNICAL SERVICES 417/624-6644	TECHNICAL SERVICES 417/624-6644
14. SEE APPENDIX IF CHECKED			

NA=not applicable

Underlayment Sheets

TAMKO ROOFING PRODUCTS, INC.	TAMKO ROOFING PRODUCTS, INC.	TAMKO ROOFING PRODUCTS, INC.	TAMKO ROOFING PRODUCTS, INC.	TAMKO ROOFING PRODUCTS, INC.	TAMKO ROOFING PRODUCTS, INC.
NO. 30	NO. 30-18" FELT	NO. 15	MOISTURE GUARD PLUS	NO. 15 UL	NO. 150
	X	X		X	X
			X		
NO. 30	NO. 30 SHAKE FELT	NO. 15		TYPE I (D 226)	NO. 15
36	18	36		36	36
216	108	432		432	432
32	17	33		54	41
			MODIFIED BITUMEN 1		
			MODIFIED ASPHALT SELF-ADHERING		
			39 3/8		
			108/225		
			43/86		
NO	NO	NO	NO	NO	NO
X		X	X	X	X
	X	X			
YES	NO	YES	YES	YES	YES
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	X	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	YES	NA	NA
			ICBO (5870) SBCCI (2137)	METRO-DADE COUNTY, FL.	
DISTRICT OFFICE	DISTRICT OFFICE	DISTRICT OFFICE	DISTRICT OFFICE	DISTRICT OFFICE	DISTRICT OFFICE
TECHNICAL SERVICES 417/624-6644	TECHNICAL SERVICES 417/624-6644	TECHNICAL SERVICES 417/624-6644	TECHNICAL SERVICES 417/624-6644	TECHNICAL SERVICES 417/624-6644	TECHNICAL SERVICES 417/624-6644

Underlayment Sheets

1. COMPANY NAME	TAMKO ROOFING PRODUCTS, INC.	TAMKO ROOFING PRODUCTS, INC.	TAMKO ROOFING PRODUCTS, INC.
2. PRODUCT NAME OR DESCRIPTION	22" SHAKE UNDERLAYMENT	NO. 30 ASTM SHAKE UNDERLAYMENT	TILE UNDERLAYMENT
3. PRODUCT CATEGORY			
A. Organic Asphalt-Saturated Felt, Unperforated	X	X	
B. Organic Asphalt-Saturated Felt, Coated			X
C. Asphalt Fiberglass Felt			
D. Special "Ice Shield" Underlayment			
4A. PRODUCT INFORMATION (FOR PRODUCTS IN CATEGORY 3A, 3B, OR 3C)			
Type (ASTM standard [specify] or generic)	TYPE II (D226)	TYPE II (D226)	
Available as Specialty Underlayment (type, e.g., shake felt)	SHAKE FELT	SHAKE FELT	TILE UNDERLAYMENT
Sheet Width (inches)	22	18	36
Size Per Roll (sq. ft.)	220	180	108
Weight Per Roll (pounds)	57	47	74
4B. PRODUCT INFORMATION (FOR PRODUCTS IN CATEGORY 3D)			
Kind of Sheet(s) (e.g., felts, modified bitumen)			
Number Of Ply(ies)/Sheets Comprising Underlayment			
Waterproofing Medium (e.g., asphalt, modified asphalt)			
Application Method (e.g., mechanical, mopped, self-adhered)			
Sheet Width (inches)			
Size Per Roll (sq. ft.)			
Weight Per Roll (pounds)			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)		NO	NO
6. RECOMMENDED FOR APPLICATION WITH:			
Asphalt Shingles			
Fiber-Cement Roof Components			
Clay Tile			
Concrete Tile			X
Metal Roof Components			
Slate			
Wood Shakes/Shingles	X	X	
Other (specify)			
7. YEAR PRODUCT FIRST SOLD			
8. NUMBER OF SQUARES INSTALLED			
9. DISTRIBUTION			
Distributors (number handling product or no)			
Direct (number of regional service locations or no)			
10. UL-CLASSIFIED PREPARED ROOFING ACCESSORY (yes/no)	NO	NO	NO
COMPLIES WITH:			
11A. ASTM D 224-89 STANDARD SPECIFICATION FOR SMOOTH-SURFACED ASPHALT ROLL ROOFING (ORGANIC FELT) (type or NA)	NA	NA	NA
Type I—Minimum net mass per unit area of roofing, 39.8lb/100 ft ²			
Type II—Minimum net mass per unit area of roofing, 54.6 lb/100 ft ²			
Type III—Minimum net mass per unit area of roofing, 51.1lb/100 ft ²			
Type IV—Minimum net mass per unit area of roofing, 39.8 lb/100 ft ²			
11B. ASTM D 226-97 STANDARD SPECIFICATION FOR ASPHALT-SATURATED ORGANIC FELT USED IN ROOFING & WATERPROOFING (type or NA)			
Type I—Commonly called No. 15 asphalt felt			
Type II—Commonly called No. 30 asphalt felt	X	X	X
11C. ASTM D 2626-97 STANDARD SPECIFICATION FOR ASPHALT-SATURATED AND COATED ORGANIC FELT BASE SHEET USED IN ROOFING (yes, no or NA)	NA	NA	NA
11D. ASTM D 4869-88 (1993) STANDARD SPECIFICATION FOR ASPHALT - SATURATED ORGANIC FELT SHINGLE UNDERLAYMENT USED IN ROOFING			
Type I—Shingle Underlayment			
Type II—Heavy Duty Shingle Underlayment			
11E. ASTM D 1970-00 STANDARD SPECIFICATION FOR SELF-ADHERING POLYMER MODIFIED BITUMINOUS SHEET MATERIAL USED AS STEEP ROOFING UNDERLAYMENT FOR ICE DAM PROTECTION (yes, no, or NA)	NA	NA	NA
11F. OTHER ASTM SPECIFICATION (specify)			
12. ACCEPTED BY THE FOLLOWING CODES			
13. FOR SALES INFORMATION, CONTACT:	DISTRICT OFFICE	DISTRICT OFFICE	DISTRICT OFFICE
FOR TECHNICAL INFORMATION, CONTACT:	TECHNICAL SERVICES 417/624-6644	TECHNICAL SERVICES 417/624-6644	TECHNICAL SERVICES 417/624-6644
14. SEE APPENDIX IF CHECKED			

NA=not applicable

TC MIRADRI	TC MIRADRI	TC MIRADRI	WARRIOR ROOFING MANUFACTURING, INC.	WARRIOR ROOFING MANUFACTURING, INC.	WARRIOR ROOFING MANUFACTURING, INC.
MIRADRI WIP 100	MIRADRI WIP 200	MIRADRI WIP 300 HT	SHINGLE FELT	#15 W	#30 W
			X	X	X
X	X	X			
			TYPE I (D 4869)	TYPE I (D 4869)	NO. 30
			36	36	36
			432	432	216
			36	40	40
MODIFIED BITUMEN 1	MODIFIED BITUMEN 1	MODIFIED BITUMEN 1			
MODIFIED ASPHALT SELF-ADHERING	MODIFIED ASPHALT SELF-ADHERING	MODIFIED ASPHALT SELF-ADHERING			
36	36	36			
100/200	100/200	200			
35/65	65	65			
YES			NO	NO	NO
X	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X	X	X
		X	X	X	X
X		X	X	X	X
		X			
		HIGH TEMP APPLICATION			
1996	1996	1996	1984	1988	1988
			3 MILLION	18 MILLION	3.5 MILLION
200+	200+	200+	200 ±	200 ±	200 ±
NO	NO	NO	NO	NO	NO
YES	YES	YES	YES	YES	YES
NA	NA	NA	NA	NA	NA
NA	NA	NA			
NA	NA	NA	NA	NA	NA
NA	NA	NA			NA
			X	X	
YES	YES	YES	NA	NA	NA
ICBO	ICBO				
TC MIRADRI 888/464-7234	TC MIRADRI 888/464-7234	TC MIRADRI 888/464-7234	S. CREW 800/749-3358	S. CREW 800/749-3358	S. CREW 800/749-3358
H. HAYS 888/464-7234	D. ACKERMAN 888/464-7234	H. HAYS 888/464-7234	K. ARNOLD 800/749-3358	K. ARNOLD 800/749-3358	K. ARNOLD 800/749-3358

Underlayment Sheets

1. COMPANY NAME	WARRIOR ROOFING MANUFACTURING, INC.	WARRIOR ROOFING MANUFACTURING, INC.	WARRIOR ROOFING MANUFACTURING, INC.
2. PRODUCT NAME OR DESCRIPTION	#15 ASTM	#30 ASTM & GOLDLINE & U/L	#15 U/L
3. PRODUCT CATEGORY			
A. Organic Asphalt-Saturated Felt, Unperforated	X	X	X
B. Organic Asphalt-Saturated Felt, Coated			
C. Asphalt Fiberglass Felt			
D. Special "Ice Shield" Underlayment			
4A. PRODUCT INFORMATION (FOR PRODUCTS IN CATEGORY 3A, 3B, OR 3C)			
Type (ASTM standard [specify] or generic)	TYPE I (D 226)	TYPE II (D 226)	TYPE I (D 226)
Available as Specialty Underlayment (type, e.g., shake felt)			
Sheet Width (inches)	36	36	36
Size Per Roll (sq. ft.)	432	216	432
Weight Per Roll (pounds)	50	57	57
4B. PRODUCT INFORMATION (FOR PRODUCTS IN CATEGORY 3D)			
Kind of Sheet(s) (e.g., felts, modified bitumen)			
Number Of Ply(ies)/Sheets Comprising Underlayment			
Waterproofing Medium (e.g., asphalt, modified asphalt)			
Application Method (e.g., mechanical, mopped, self-adhered)			
Sheet Width (inches)			
Size Per Roll (sq. ft.)			
Weight Per Roll (pounds)			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO	NO
6. RECOMMENDED FOR APPLICATION WITH:			
Asphalt Shingles	X	X	X
Fiber-Cement Roof Components	X	X	X
Clay Tile	X	X	X
Concrete Tile	X	X	X
Metal Roof Components	X	X	X
Slate	X	X	X
Wood Shakes/Shingles			
Other (specify)			
7. YEAR PRODUCT FIRST SOLD	1978	1978	1978
8. NUMBER OF SQUARES INSTALLED	72 MILLION	18 MILLION	72 MILLION
9. DISTRIBUTION			
Distributors (number handling product or no)	200 ±	200 ±	200 ±
Direct (number of regional service locations or no)	NO	NO	NO
10. UL-CLASSIFIED PREPARED ROOFING ACCESSORY (yes/no)	YES	YES	YES
COMPLIES WITH:			
11A. ASTM D 224-89 STANDARD SPECIFICATION FOR SMOOTH-SURFACED ASPHALT ROLL ROOFING (ORGANIC FELT) (type or NA)	NA	NA	NA
Type I—Minimum net mass per unit area of roofing, 39.8lb/100 ft ²			
Type II—Minimum net mass per unit area of roofing, 54.6 lb/100 ft ²			
Type III—Minimum net mass per unit area of roofing, 51.1lb/100 ft ²			
Type IV—Minimum net mass per unit area of roofing, 39.8 lb/100 ft ²			
11B. ASTM D 226-97 STANDARD SPECIFICATION FOR ASPHALT-SATURATED ORGANIC FELT USED IN ROOFING & WATERPROOFING (type or NA)			
Type I—Commonly called No. 15 asphalt felt	X		X
Type II—Commonly called No. 30 asphalt felt		X	
11C. ASTM D 2626-97 STANDARD SPECIFICATION FOR ASPHALT-SATURATED AND COATED ORGANIC FELT BASE SHEET USED IN ROOFING (yes, no or NA)	NA	NA	NA
11D. ASTM D 4869-88 (1993) STANDARD SPECIFICATION FOR ASPHALT - SATURATED ORGANIC FELT SHINGLE UNDERLAYMENT USED IN ROOFING	NA		NA
Type I—Shingle Underlayment			
Type II—Heavy Duty Shingle Underlayment			
11E. ASTM D 1970-00 STANDARD SPECIFICATION FOR SELF-ADHERING POLYMER MODIFIED BITUMINOUS SHEET MATERIAL USED AS STEEP ROOFING UNDERLAYMENT FOR ICE DAM PROTECTION (yes, no, or NA)	NA	NA	NA
11F. OTHER ASTM SPECIFICATION (specify)			
12. ACCEPTED BY THE FOLLOWING CODES		METRO-DADE COUNTY, FL.	
13. FOR SALES INFORMATION, CONTACT:	S. CREW 800/749-3358	S. CREW 800/749-3358	S. CREW 800/749-3358
FOR TECHNICAL INFORMATION, CONTACT:	K. ARNOLD 800/749-3358	K. ARNOLD 800/749-3358	K. ARNOLD 800/749-3358
14. SEE APPENDIX IF CHECKED			

NA=not applicable

WARRIOR ROOFING MANUFACTURING, INC.	WARRIOR ROOFING MANUFACTURING, INC.	WARRIOR ROOFING MANUFACTURING, INC.	WARRIOR ROOFING MANUFACTURING, INC.	WARRIOR ROOFING MANUFACTURING, INC.	W.R. GRACE & CO.- CONN.
#15	#30	#30 SPLIT FELT	#30 SHAKE LINER	WARRIOR CHOICE	GRACE ICE & WATER SHIELD
X	X	X	X	X	
					X
TYPE I (D 4869)	TYPE II (D 4869)	NO. 30 SHAKE FELT	TYPE II (D 226) SHAKE FELT	TYPE 1 (D4869)	
36	36	18	18	36	
432	216	108	108	400	
44	44	22	29	30	
					MODIFIED BITUMEN 1
					MODIFIED ASPHALT SELF-ADHERING
					36
					108/225
					35/67
NO	NO	NO	NO	NO	NO
X	X			X	X
X	X			X	X
X	X			X	X
X	X			X	X
X	X			X	X
X	X			X	X
		X	X	X	X
1982	1982	1989	1989	1994	1978
72 MILLION	18 MILLION	5 MILLION	1 MILLION	< 1 MILLION	
200 ±	200 ±	200 ±	200 ±	< 100	
NO	NO	NO	NO		
YES	YES	NO	NO	NO	YES
NA	NA	NA	NA	NA	NA
					NA
			X		
NA	NA	NA	NA	NA	NA
		NA	NA		NA
X	X			X	
NA	NA	NA	NA		YES
					ICBO, SBCCI, BOCA, L.A. HUD, METRO-DADE CNTY, CCMC, PALM BEACH CNTY
S. CREW 800/749-3358	S. CREW 800/749-3358	S. CREW 800/749-3358	S. CREW 800/749-3358	S. CREW 800/749-3358	800/444-6459
K. ARNOLD 800/749-3358	K. ARNOLD 800/749-3358	K. ARNOLD 800/749-3358	K. ARNOLD 800/749-3358	K. ARNOLD 800/749-3358	800/444-6459

Underlayment Sheets

1. COMPANY NAME	W.R. GRACE & CO .- CONN.	W.R. GRACE & CO .- CONN.
2. PRODUCT NAME OR DESCRIPTION	VYCOR SELECT	VYCOR ULTRA
3. PRODUCT CATEGORY		
A. Organic Asphalt-Saturated Felt, Unperforated		
B. Organic Asphalt-Saturated Felt, Coated		
C. Asphalt Fiberglass Felt		
D. Special "Ice Shield" Underlayment	X	X
4A. PRODUCT INFORMATION (FOR PRODUCTS IN CATEGORY 3A, 3B, OR 3C)		
Type (ASTM standard [specify] or generic)		
Available as Specialty Underlayment (type, e.g., shake felt)		
Sheet Width (inches)		
Size Per Roll (sq. ft.)		
Weight Per Roll (pounds)		
4B. PRODUCT INFORMATION (FOR PRODUCTS IN CATEGORY 3D)		
Kind of Sheet(s) (e.g., felts, modified bitumen)	MODIFIED BITUMEN	BUTYL
Number Of Ply(ies)/Sheets Comprising Underlayment	1	1
Waterproofing Medium (e.g., asphalt, modified asphalt)	MODIFIED ASPHALT	BUTYL
Application Method (e.g., mechanical, mopped, self-adhered)	SELF-ADHERING	SELF-ADHERING
Sheet Width (inches)	36	34
Size Per Roll (sq. ft.)	195	198
Weight Per Roll (pounds)	34	43
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO
6. RECOMMENDED FOR APPLICATION WITH:		
Asphalt Shingles	X	X
Fiber-Cement Roof Components	X	X
Clay Tile	X	X
Concrete Tile	X	X
Metal Roof Components	X	X
Slate	X	X
Wood Shakes/Shingles	X	X
Other (specify)		
7. YEAR PRODUCT FIRST SOLD	1997	1997
8. NUMBER OF SQUARES INSTALLED		
9. DISTRIBUTION		
Distributors (number handling product or no)		
Direct (number of regional service locations or no)		
10. UL-CLASSIFIED PREPARED ROOFING ACCESSORY (yes/no)	YES	YES
COMPLIES WITH:		
11A. ASTM D 224-89 STANDARD SPECIFICATION FOR SMOOTH-SURFACED ASPHALT ROLL ROOFING (ORGANIC FELT) (type or NA)	NA	NA
Type I-Minimum net mass per unit area of roofing, 39.8lb/100 ft ²		
Type II-Minimum net mass per unit area of roofing, 54.6 lb/100 ft ²		
Type III-Minimum net mass per unit area of roofing, 51.1lb/100 ft ²		
Type IV-Minimum net mass per unit area of roofing, 39.8 lb/100 ft ²		
11B. ASTM D 226-97 STANDARD SPECIFICATION FOR ASPHALT-SATURATED ORGANIC FELT USED IN ROOFING & WATERPROOFING (type or NA)	NA	NA
Type I-Commonly called No. 15 asphalt felt		
Type II-Commonly called No. 30 asphalt felt		
11C. ASTM D 2626-97 STANDARD SPECIFICATION FOR ASPHALT-SATURATED AND COATED ORGANIC FELT BASE SHEET USED IN ROOFING (yes, no or NA)	NA	NA
11D. ASTM D 4869-88 (1993) STANDARD SPECIFICATION FOR ASPHALT - SATURATED ORGANIC FELT SHINGLE UNDERLAYMENT USED IN ROOFING	NA	NA
Type I-Shingle Underlayment		
Type II-Heavy Duty Shingle Underlayment		
11E. ASTM D 1970-00 STANDARD SPECIFICATION FOR SELF-ADHERING POLYMER MODIFIED BITUMINOUS SHEET MATERIAL USED AS STEEP ROOFING UNDERLAYMENT FOR ICE DAM PROTECTION (yes, no, or NA)	YES	YES
11F. OTHER ASTM SPECIFICATION (specify)		
12. ACCEPTED BY THE FOLLOWING CODES	ICBO	ICBO
13. FOR SALES INFORMATION, CONTACT:	800/444-6459	800/444-6459
FOR TECHNICAL INFORMATION, CONTACT:	800/444-6459	800/444-6459
14. SEE APPENDIX IF CHECKED		

NA=not applicable

Appendix

UNDERLAYMENT SHEETS

GAF Materials Corporation

Shingle Mate is a fiberglass composite sheet.

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Section 8: Incomplete Data

Section 8: Incomplete Data

In publishing the *Steep-Slope Roofing Materials Guide*, NRCA maintains a policy of total objectivity in its reporting of data. Nothing is required from listing manufacturers other than to provide information on their products in the prescribed reporting format. Any manufacturer of a product in the categories included in the *Guide* can be listed by submitting their information in accordance with procedures developed for this purpose.

Product manufacturers included in the *Guide* are encouraged to provide NRCA with listing information for their products that is as complete as possible for publication in the *Guide*. In situations where manufacturers have submitted product information (e.g., test results) that is deemed to be incomplete, these specific products have been omitted from the detailed listing sections of the *Guide*. Manufacturers and products with incomplete product listing information are included in this new section of the *Guide*, entitled Section 8: Incomplete Data.

NRCA has established this policy regarding manufacturers' product listings with incomplete data at the request of users of the *Guide*, who are clearly seeking detailed and complete product information from the *Guide* and the companies listed.

Users of the *Guide* who are interested in specific product information on a manufacturer's product that is included in Section 8: Incomplete Data are encouraged to contact the specific product manufacturer directly. Manufacturers' contact information is provided in the index section of the *Guide*.

Incomplete product data was provided by the following manufacturers for the specific products indicated.

Section 1: Asphalt Shingles

Manufacturer	Products
None	None

Section 2: Fiber-Cement and Synthetic

Manufacturer	Products
None	None

Section 3: Clay and Concrete Tile

Manufacturer	Product
Imery Toiture	Beauvoise H 14 Phalempin Romane

Section 3: Clay and Concrete Tile (continued)

Manufacturer	Products
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TBFTile	Canal 40 Canal 50 LaGauloise Residence Roman Canal Romane
Tulerie DePontigny Aleonard	Canal 40 Canal 50 LaGauloise Glazed Monument Historique Patrimony Roman canal Romane
U.S. Tile Company	Claylite Lightweight "S" Tile Claymax Twin-S Lightweight "S" Tile Tapered Mission Tile

Section 4: Metal Panels

Manufacturer	Products
None	None

Section 5: Wood Shakes and Shingles

Manufacturer	Products
None	None

Section 6: Slate

Manufacturer	Products
None	None

Section 7: Underlayment Sheets

Manufacturer	Products
None	None