Asphalt shingle developments

by **Mark S. Graham**

NRCA has expressed concern about the lack of practical tolerance guidelines governing the placement of fasteners used to attach asphalt shingles. Recently, there have been some notable developments regarding this issue, which I will discuss in this column.

Background

NRCA has maintained it is not possible for asphalt shingle installers to consistently achieve fastener placement according to the exacting requirements printed in asphalt shingle manufacturers' installation instructions.

For example, in 2002, NRCA conducted a survey about architectural laminated asphalt shingles. The survey revealed fastener-placement tolerances as little as plus or minus ¼ of an inch (6 mm) are required by manufacturers to reasonably ensure fastener penetration to a laminated shingle's double-thickness portion. (For additional information, refer to "Asphalt shingle application tolerances," March 2000 issue, page 106, and "Are laminates tolerant?" August 2002 issue, page 30.)

Developments

Since 1999, Malarkey Roofing Co., Portland, Ore., has been implementing its patented "The Zone" technology into its laminated asphalt shingle products. This technology provides for a wider double-thickness portion than with conventional laminated asphalt shingles, which results in a 1¾-inch- (44-mm-) wide (vertical height) nailing zone. Currently, Malarkey Roofing's "The Zone" applies to its Legacy, Northwest-XL and Highlander shingles.

Earlier this year, GAF Materials Corp., Wayne, N.J., implemented its "Less Fastening Hassles!" concept, which provides for specific nail zones for proper application. For example, for GAF Materials' Sovereign series of three-tab shingles, the nail zones measure 2 inches (51 mm) wide by 1¼ inches (32 mm) high at each fastener location, provided fastener heads do not cover a shingle's self-seal strip.

For Timberline laminated asphalt shingles manufactured in its Tampa, Fla., and Mobile, Ala., plants (and not installed in Dade County, Fla.), GAF Materials has implemented three fastening lines defining two sets of nail zones: a "Best Installation" nail zone and "Acceptable Installation" nail zone.

The "Best Installation" nail zone is similar to that of other laminated shingles. The "Acceptable Installation" nail zone is positioned higher in the headlap portion of shingles, above the double-thickness portion, and measures 2 inches (51 mm) square for nails positioned at the edges of the shingle and 3 inches (76 mm) wide by 2 inches (51 mm) high at the inner nailing positions. The "Acceptable Installation" nail zone applies to applications on roof slopes up to 12-in-12 (45 degrees).

GAF Materials has indicated it has tested these expanded nail zones at Underwriters Laboratories Inc. and the testing conclusively proves that once shingles have sealed, the expanded nail zones will not affect wind resistance. GAF Materials also indicates its long-term field experience supports its conclusion.

At this year's NRCA convention, CertainTeed Corp., Valley Forge, Pa., introduced its Landmark Widetrack QB series of laminated asphalt shingles, which provides for a specially formulated adhesive to hold two-piece laminate shingles together. The shingle includes three nailing lines defining a 1½-inch- (38-mm-) wide (vertical height) nailing track, a portion of which is above the double-thickness portion of the laminate shingles. CertainTeed indicates the wide nailing track is applicable to roof slopes up to 21-in-12 (60 degrees).

At this point, these are the only asphalt shingle manufacturers I am aware of that have implemented practical fastener tolerance guidelines for their asphalt shingles.

Closing thoughts

Asphalt shingle manufacturers' product enhancements and introductions have provided asphalt shingle installers with several approaches to address fastener placement tolerances for asphalt shingle application. If your company is involved with installing asphalt shingles, I encourage you to look into these products further by contacting the manufacturers directly. Keep in mind, all the products discussed in this article may not yet be available in all U.S. regions.

Given the competitive nature of the asphalt shingle business, it will be interesting to monitor further asphalt shingle product developments and whether other asphalt shingle manufacturers will follow suit.

I compliment the asphalt shingle manufacturers that attempted to address asphalt shingle installers' and NRCA's concerns regarding required fastener placement tolerances.

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