Keeping current with ratings

by **Mark S. Graham**

Making a roof assembly compliant with fire- and wind-resistance ratings typically is critical to satisfying requirements of project specifications, contracts and building codes. However, determining the ratings for specific roofing products and assemblies often is difficult.

This month, I briefly will review the information regarding fire- and wind-resistance ratings that is available to roof assembly designers and explain some of the limitations of that information and the need for additional information.

UL directory

Underwriters Laboratories (UL) Inc. annually publishes its *Roofing Materials and Systems* directory, which includes detailed descriptions of roof assemblies that satisfy UL's requirements for listings or classifications. The 2004 edition addresses 20 categories.

The current edition of UL's directory, which was available in March 2004, indicates the information was current as of Dec. 12, 2003. Any updates or revisions to the directory's information since then are not readily available until the next edition of the directory is published in 2005.

UL also makes its listings and classifications available online at www.ul.com. Using the "Certifications" link on the site, you can search for specific listings and certifications based on company name, UL file number, UL category code and keyword. This online resource appears to be the most up-to-date source of UL's listings and classifications.

FM Approvals guide

FM Approvals annually publishes its *Approval Guide*, which describes equipment, materials and services the organization approves. The guide contains three primary sections applicable to roof assemblies: "Introduction to Approved Roof Constructions," "Descriptions of Roofing Products," and "Approved Combinations and Assemblies."

Although the current edition of the guide, which first was available in March, does not precisely indicate how current the approvals are, FM Approvals has acknowledged the guide was current as of its publication closing date in early October 2003.

FM Approvals has announced the current edition of its guide will be the last one available in printed form. FM Approvals also publishes the guide in CD-ROM format and encourages users to purchase the electronic version, which is updated quarterly.

One helpful feature on the electronic version of the guide is that any changes or additions to specific approvals are represented in red highlighted text.

More information

Given the importance of fire- and wind-resistance ratings, more useful, complete and timely information regarding UL and FM Approval listings, classifications and approvals is needed.

The format, layout and arrangement of information on UL's directory and FM Approvals' guide is unclear and on the verge of being useless to most roofing professionals.

Unless you frequently use UL's directory, for example, you likely wouldn't realize that to find the UL listings and classifications applicable to asphalt shingles you need to refer to three categories—Roof Covering Materials (TEVT), Prepared Roof Covering Materials (TFWZ) and Roof Covering Materials, Impact Resistance (TGAM).

Once you find an appropriate listing, you quickly will discover the descriptions often contain vague, incomplete information. For example, though the FM Approvals guide indicates a specific number of fasteners required to secure rigid board insulation to a roof substrate, it does not provide the required fastening pattern, which can be critical to the approval. Instead, you need to consult the specific manufacturer or refer to FM Global's *Property Loss Prevention Data Sheets* for the necessary information.

Finally, there is a need for current listing, classification and approval information and proper notification regarding any changes to these to be readily available.

As an example, NRCA recently has learned that in 2003, UL withdrew a number of manufacturers' classifications for specific single-ply membrane roof systems installed directly over polyisocyanurate insulation on combustible roof decks. In the regions where use of this roof assembly type is common, UL's withdrawal of these classifications is significant.

Clearly, UL, FM Approvals and other code-approved testing agencies need to do a better job making useful, complete, timely information regarding their listings, classifications and approvals available to roofing professionals. In the meantime, I encourage you to consult with manufacturers for specific fire- and wind-resistance information applicable to their roof assemblies.

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