Understanding fire ratings
Classification listings must be strictly followed
by Mark S. Graham

Most roofing professionals understand the importance of providing fire-rated roof assemblies. However, what may not be well understood is what fire classifications are required and some of the nuances associated with such classifications.

Fire classifications


IBC 2015 and its previous editions require fire-tested roof assemblies be identified in a listing provided by an approved testing agency. Such a listing is an agency’s published list of products or assemblies that meet an identified standard or have been tested and found suitable for a specified purpose.

For example, Underwriters Laboratories (UL) Inc. provides its listings in its Online Certifications Directory, www.ul.com/data base. The following UL categories include roofing products evaluated for Class A, B and C fire ratings: Roofing Systems (UL category code TGFU); Prepared Roof-covering Materials (TFZW); Prepared Roof-covering materials, Formed or Molded Metal, Fibercement, Plastic or Fire-retardant-treated Wood (TFXX); Prepared Roofing Accessories (TGDY); and Building-integrated Photovoltaic Modules and Panels (QHZK). Listings are best located by entering the appropriate UL category code into UL’s online directory.

Fire classifications are limited to the specific materials, products and configurations described in a listing. Substitution of materials or products not specifically identified in a listing is not permitted. For example, for a steep-slope roof assembly, it is not appropriate to substitute a nonlisted underlayment product for ones that are in the listing. Such substitutions can render an assembly nonrated.

Only materials, products and assemblies that have been tested and found suitable for a specified purpose.

NRCA encourages designers to be aware of the applicable code’s fire-classification requirements for specific buildings and to specify materials, products and assemblies that have required classification listings.

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