

BULLETIN

Product Updates · News & Information

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UL/ULC & FM Requirements

In order to answer questions about UL/ULC & FM requirements on projects being estimated or specified, IKO requires a certain amount of information before we can help you with the project. The questions we will ask you, as well as some useful information, are listed below. Please have the answers to these questions before you call us to ask if IKO has a system that meets the criteria.

1. Is the specification requesting UL/ULC, FM, or both? For UL/ULC (ANSI) Class A, B, and C the test standard is UL (ANSI) 790 or ULC S-107. For FM (ASTM) Class A, B, and C, the test standard is ASTM E 108. For FM Class I-60 and I-90, the standard is Factory Mutual 4470 (1986).
2. If UL/ULC is being specified, are they looking for Class A, Class B, or Class C? Is the deck noncombustible or combustible? Noncombustible decks are steel, concrete, lightweight concrete, and gypsum. Tectum, as well as all wood decks, are considered combustible by UL/ULC.
3. If FM is being specified, are they looking for Class I-90 or Class I-60? By definition, a Class I deck is 22 gauge minimum steel, 3,000 psi concrete, 1.5" treated wood plank, or 3/4" treated plywood. For FM approved assemblies, all components are manufacturer-specific. Currently, the only approved manufacturer for wood plank and 3/4" plywood is the Hickson Corporation in Conley, Georgia. There are a number of approved manufacturers for steel and concrete roof decks. Lightweight concrete is considered noncombustible by FM (which is actually superior to Class I in terms of setting insurance rates). FM rates all other deck materials as "inferior construction" and charges a higher insurance premium to insure these types of constructions. For the record, a building owner must be insured by FM in order to receive an FM Class I approved roof. However, FM is often specified for non-FM insured building owners as the other insurance companies recognize the FM criteria and adjust their rates if a building owner installs an "equal to FM Class I" roof on their building.
4. What is the roof deck? Steel, concrete, gypsum, tectum, etc.? Thickness or gauge?
5. Is there a vapor barrier specified? If so, what is the type and thickness of the barrier? UL/ULC usually accepts non-UL/ULC Classified vapor barriers if the manufacturer asks for them as part of the test program. FM, on the other hand, is manufacturer-specific and only accepts FM-approved vapor barriers.
6. What is the slope of the roof?
7. Is this new construction, tear-off, or recover? Note: FM greatly limits the thickness of insulation on re-cover projects. UL/ULC is less restrictive.

8. What type, and how thick, is the new thermal roof insulation being specified?
9. What type, and how thick, is the new cover board being specified?
10. What type of membrane is being specified? APP, SBS or BUR?
11. If re-cover, what is the existing roof? What is the type and thickness of the existing insulation?
12. What length and type of limited warranty is being specified for the project?

We hope this helps to clear up some of the confusion concerning these important industry standards.

The information and instructions contained in this bulletin are intended only for qualified professional roofing contractors as general information and guidelines, and are not to be used as a substitute for modified, supplemented or specific techniques for a particular job based on the circumstances. Contractors are advised to follow all manufacturer's application instructions, warranty requirements and applicable building and safety codes.