

MARKET ALERT!!!

Are you using a code approved fire-retardant treated wood (FRTW)

The International Building Code (IBC) is explicit in its definition of FRTW for use in structural applications. Section 2303.2 of the 2024 IBC states fire-retardant-treated wood must be, “impregnated with chemicals by a pressure process or other means during manufacture.” When tested in accordance with ASTM E84 or UL 723 it must achieve a flame spread index of 25 or less and, “The ASTM E84 or UL 723 test shall be continued for an additional 20 minute period and the flame front shall not progress more than 10.5 feet beyond the centerline of the burners at any time during the test. The phrase “or other means” allows for the advent of new products or technologies that might work without using pressure to impregnate the wood with fire-retardant chemicals. Section 2303.2.1 makes it clear that the performance testing requirements described above remain. In Section 2303.2.2 the code dictates that for wood impregnated by a pressure process, “the process shall be performed in closed vessels under pressures not less than 50 pounds per square inch gauge...” Section 2303.2.3 then states, “For wood products impregnated with chemicals by other means during manufacture, the treatment shall be an integral part of the manufacturing process (and) the treatment shall provide permanent protection to all surfaces.” In Section 2303.2.3 the IBC provides a qualifying statement: “The use of paints, coating, stains or other surface treatments is **not** an approved method of protection as required in this section.”

The [ASTM E84](#) test, or “Steiner Tunnel Test,” is a standardized 10-minute fire-test method used to evaluate the surface burning characteristics of building materials. It measures the [Flame Spread Index](#) (speed of fire) and [Smoke Developed Index](#) (smoke density) of exposed interior finishes, such as walls and ceilings.

If lumber or plywood products successfully endure the initial 10-minute ASTM E84 test, the lumber and plywood products will be classified as a Class A Fire Retardant product. However, products that pass the Class A requirements do not necessarily meet the international building code (IBC) definition for FRTW products as stated above.
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Only lumber and plywood products that endure both the 10-minute ASTM E84 test and the additional 20-minute ASTM E-84 test will be stamped as Class A, FRTW and FR-S lumber and plywood. Only FRTW and FR-S products meet and are approved by the international building codes (IBC) definition above.

Additionally, a user of FRTW, FR-S should ensure the fire-retardant lumber or plywood (FRTW) meets the American Wood Protection Association Standards P50 FR-2 or P49 FR-1 for interior FRTW lumber and plywood.

Users of FRTW in critical structural applications should be aware that while producers and marketers of fire-retardant coatings may make claims of "Class A fire ratings" and "code-compliance," if a product cannot meet the rigorous requirements of the ASTM E84 test with the extended 20-minute, the ASTM E2768 test, (a full 30 minute duration) it is not compliant under Section 2303.2 of the IBC.

