

# NATIONAL FIRE PROTECTION ASSOCIATION

## NFPA 101-Life Safety Code

*Published by National Fire Protection Association*

Fire retardant treated wood is not specifically included in the code. Requirements for Class A interior finish specify a flame spread rating value of 0-25 and smoke developed of 450 or less — requirements which would be met by fire retardant treated wood. FRT wood booths are permitted in new assembly buildings (see chapter 8) and existing assembly buildings (see chapter 9).

## NFPA 703-Standard for Fire Retardant Impregnated Wood

1. Fire retardant treated wood shall be defined as any wood product which, when impregnated with chemicals by a pressure process, or other means during manufacture, shall have, when tested in accordance with ASTM E 84-Standard Test Method for Surface Burning Characteristics of Building Materials, a flame spread index of 25 or less and show no evidence of significant progressive combustion when the test is continued for an additional 20 minute period. In addition, the flame front shall not progress more than 10.5 feet beyond the center line of the burner at any time during the test.

2. All fire retardant treated wood shall bear an identification mark showing the flame spread classification thereof, issued by an approved agency having a re-examination service.

3. Where fire retardant treated wood is exposed to the weather, it shall be further identified to indicate that there is no increase in the listed flame spread classification as defined in Item 1 when subjected to ASTM D 2898-Standard Method for Accelerated Weathering of Fire Retardant Treated Wood for Fire Testing.

4. Where experience has demonstrated a specific need for use of material of low hygroscopicity, fire retardant treated wood to be subjected to high humidity conditions shall be identified to indicate that the treated wood has a moisture content of not over 28 percent when tested in accordance with ASTM D 3201-Test Method for Hygroscopic Properties of Fire-Retardant Wood and Wood-Base Products procedures at 92 percent relative humidity and 80 degrees F.

5. Fire retardant treated wood shall be dried to a moisture content of 19 percent or less for lumber and 15 percent or less for plywood before use.

Note: Even though all fire retardant treated structural lumber and plywood, to be thus classified, must meet fire retardancy requirements of Item 1 above, other properties – such as strength, resistance to heat degradation, hygroscopicity – will vary between similar products of different manufacturers depending on the specific, proprietary treatment. Therefore, the use of an “or equal” clause is not appropriate when specifying fire retardant treated wood.

Specifications for fire retardant treated wood should therefore include:

- Definition of all significant properties, or
- Listing of all acceptable manufacturers and/or products

### **Sprinklers not needed in some concealed spaces**

Section 8.14.1.2.11 of the NFPA 13 Standard, 2006 Edition, “Concealed spaces in which the exposed materials are constructed entirely of fire-retardant treated wood as defined by NFPA 703, Standard for Fire Retardant Impregnated Wood and Fire Retardant Coatings for Building Materials, shall not require sprinkler protection.”

Dricon® FRT wood complies with NFPA 703, and thus eliminates the need for sprinklers in these spaces. This saves time for the builder and expense for his client, and it avoids the consequences of an accidental sprinkler activation.