

BPVW.GuidelInfo - Lumber, Treated

[Building Materials] (Surface-burning Characteristics) Lumber, Treated

[See General Information for Surface-burning Characteristics](#)

GENERAL

This category covers the surface-burning characteristics of lumber that has been treated by pressure impregnation to reduce combustibility.

To be eligible for certification, treated lumber must have a flame spread of less than 70 or 70% of the flame spread of untreated lumber of the same species, whichever results in the lesser value.

In some cases, the designation "FR-S" appears in the individual certifications in place of the flame-spread and smoke-developed values. This designation denotes that the flame-spread and smoke-developed values applicable to a particular species are 25 or less and that the species has been subjected to tests of 30 min duration during which the flame spread did not progress more than ten and one-half (10-1/2) ft beyond the center line of the burners, with no evidence of significant progressive combustion.

Unless otherwise indicated, the treatments consist of water-soluble salts which will be affected by repeated exposure to water or conditions that may result in the condensation of water. In order to determine the effect of moisture conditions on the surface-burning characteristics, treated lumber (where indicated in the individual certifications) has been subjected to a Standard Rain Test consisting of cyclic wetting and drying periods per ASTM D2898 (1994), "Standard Test Methods for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing." These products are eligible to bear the supplemental statement "No increase in the listed Classification when subjected to the Standard Rain Test, ASTM D2898-94."

The surface-burning characteristics are established on samples dried to equilibrium at Standard conditions without further processing or machining. As the lumber is not necessarily treated throughout its cross section, it is imperative that no outer material be removed if the published certifications are to be maintained. However, some species of treated lumber, as indicated in the individual certifications, may have been factory milled on either surface without altering the existing classification, as determined by fire-testing material before and after milling.

Some species of treated lumber, as indicated in the individual certifications, have also been tested for the spread of flame and evidence of significant progressive combustion for test of 30 min duration under the same conditions of exposure. These products are eligible to bear the supplemental statement "In test of 30 min duration, the flame spread did not progress more than ten and one-half (10-1/2) ft beyond the center line of the burners, with no evidence of significant progressive combustion."

In addition to the surface-burning characteristics, as indicated in the individual certifications, treated lumber conforming to AWPA C20 (1993), "Structural Lumber - Fire-Retardant Treatment by Pressure Processes," (moisture content and flame spread certification performance rating) may be provided. This standard contains specifications relating to moisture content, flame spread and hygroscopicity for "Interior Type A" performance ratings and moisture content, flame spread, and standard rain test for "Exterior Type" performance ratings.

Some species of treated lumber, as indicated in the individual certifications, have been tested in accordance with ASTM D3201 (1994), "Standard Test Method for Hygroscopic Properties of Fire-Retardant Wood and Wood-Base Products." These species of lumber are eligible to bear the supplement statement "Equilibrium moisture content of less than 28 percent when tested in accordance with ASTM D3201-94 at 92 percent relative humidity."

Some species of treated lumber, as indicated in the individual certifications, have been kiln dried after treatment per ASTM D4442 (1992), "Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Base Materials"/ASTM D4444, "Standard Test Methods for Use and Calibration of Hand-Held Moisture Meters." These species of lumber are eligible to bear the supplement statement "Kiln dried after treatment to a maximum moisture content of 19 percent in accordance with ASTM D4442/ASTM D4444-92."

One or more of the following adjunct statements, referenced above, may be indicated in the individual certifications by alphabetical letters having the following meanings:

A - No increase in the listed Classifications when subjected to the Standard Rain Test, ASTM D2898-94.

B - In test of 30 min duration, flame spread did not progress more than ten and one-half (10-1/2) ft beyond the center line of the burners and there was no evidence of significant progressive combustion.

C - In accordance with AWPA C20-1993, Interior Type A.

E - In accordance with AWPA C20-1993, Exterior Type.

F - Factory milled after treatment.

G - May have been factory milled after treatment.

H - Equilibrium moisture content less than 28% when tested in accordance with ASTM D3201-1994 at 92% relative humidity.

I - Kiln dried after treatment to a maximum moisture content of 19% in accordance with ASTM D4442/ASTM D4444-1992.

The structural qualities of this lumber have not been determined. The certifications are confined to the materials themselves and do not pertain to the structures in which they may be installed.

The toxicity of the products of combustion and other properties have not been investigated.

Authorities Having Jurisdiction should be consulted before installation.

PRODUCT IDENTITY

The following product identity appears on the product:

Treated Lumber

ADDITIONAL INFORMATION

For additional information, see Surface-burning Characteristics ([BIKT](#)) and Building Materials ([AABM](#)).

REQUIREMENTS

The basic standard used to investigate products in this category is [ANSI/UL 723](#), "Test for Surface Burning Characteristics of Building Materials."

UL MARK

The Certification Mark of UL on the product is the only method provided by UL to identify products manufactured under its Certification and Follow-Up Service. The [Certification Mark](#) for these products includes the UL symbol, the words "CERTIFIED" and "SAFETY," the geographic identifier(s), and a file number.

Additional Certification Markings

Products covered under this category are additionally marked with the following information:

AS TO SURFACE-BURNING CHARACTERISTICS

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+ The specific numerical ratings applicable to the product

++ If applicable, the statement "In test of 30 min duration, the flame spread did not progress more than ten and one-half (10-1/2) ft beyond the center line of the burners, with no evidence of significant progressive combustion" (or the

abbreviation "30 min.")

or

FR-S LUMBER*

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* Applicable only to treated lumber having flame-spread and smoke-developed values of not more than 25

+ The statement "In test of 30 min duration, the flame spread did not progress more than ten and one-half (10-1/2) ft beyond the center line of the burners, with no evidence of significant progressive combustion" (or the abbreviation "30 min.")

Any of this information may be imprinted on the lumber, either once per board or at 2-ft intervals, or may be on separable paper labels applied one per board, or one per bundle of 50 pieces or less, where acceptable to the Authority Having Jurisdiction.

Alternate UL Mark

The Classification Mark of UL on the product is the only method provided by UL to identify products manufactured under its Classification and Follow-Up Service. The Classification Mark for these products includes the UL symbol, the word "CLASSIFIED" above the UL symbol (as illustrated in the Introduction of this Directory) or the statement "UND. LAB. INC. CLASSIFIED," the product identity "TREATED LUMBER," a control number, and the statement "SURFACE BURNING CHARACTERISTICS" or "FR-S LUMBER."

Classification Marks with the statement "SURFACE BURNING CHARACTERISTICS" will include the specific numerical ratings applicable to the product, and if so qualified the added statement "In test of 30 min duration, the flame spread did not progress more than ten and one-half (10-1/2) ft beyond the center line of the burners, with no evidence of significant progressive combustion" (or the abbreviation "30 min.").

Classification Marks with the statement "FR-S LUMBER" are applicable to treated lumber having numerical ratings not more than 25 for flame spread and smoke developed, and also eligible for the "30 min test" statement quoted above.

Any of these Classification Mark texts may be imprinted on the lumber, either once per board or at 2-ft intervals, or may be separable paper Classification Marks applied one per board, or one per bundle of 50 pieces or less, where acceptable to the Authority Having Jurisdiction.

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The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

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