

Code Compliance Research Report CCRR-1044

Issue Date: 06-19-2015 Revision Date: 05-23-2019 Renewal Date: 01-01-2020

DIVISION: 06 00 00 – WOOD, PLASTICS, AND COMPOSITES Section: 06 05 73.13 – Fire-Retardant Wood Treatment

DIVISION: 09 00 00 - FINISHES

Section: 09 96 43 - Fire-Retardant Coatings

REPORT HOLDER:

Fire Retardant Coatings of Texas, LLC 1150 Blue Mound Road West, Suite 403 Haslet, Texas 76052 (817) 710-5233 www.frctexas.com

REPORT SUBJECT:

FX Lumber Guard and FX Lumber Guard XT Fire Retardant Coatings

1.0 SCOPE OF EVALUATION

- **1.1** This Research Report addresses compliance with the following Codes:
- 2018, 2015 and 2012 International Building Code® (IBC)
- 2018, 2015 and 2012 International Residential Code® (IRC)
- 2018, 2015 and 2012 International Fire Code[®] (IFC)
- 2018, 2015 and 2012 International Existing Building Code® (IEBC)

NOTE: This report references 2018 Code sections. Earlier versions of the codes may have different section numbers.

- **1.2** FX Lumber Guard and FX Lumber Guard XT have been evaluated for the following properties (see Table 1):
- Surface burning characteristics
- **1.3** FX Lumber Guard and FX Lumber Guard XT are recognized in this report for the following uses:
- To reduce the flame-spread classification of the lumber or plywood to achieve the flame-spread and smokedeveloped indices required by the applicable Code
- Surface application to unfinished surfaces of Southern Yellow Pine, Spruce-Pine-Fir, Hem Fir, and Douglas Fir

dimensional lumber, and Southern Yellow Pine, Douglas Fir and Spruce-Pine-Fir plywood.

2.0 STATEMENT OF COMPLIANCE

FX Lumber Guard and FX Lumber Guard XT comply with the Codes listed in Section 1.1, for the properties stated in Section 1.2, and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.

3.0 DESCRIPTION

FX Lumber Guard and FX Lumber Guard XT are fire retardant coatings as defined in IFC Section 803.4. The coatings are clear, water-based products supplied in 1 quart, 1 gallon, and 5 gallon containers, 55 gallon drums, and 250 gallon totes. The coatings have a shelf life of three years when stored in sealed containers at temperatures between 45°F and 95°F.

4.0 PERFORMANCE CHARACTERISTICS

4.1 Surface Burning Characteristics: When applied to unfinished dimensional Southern Yellow Pine, SPF, Hem Fir, and Douglas Fir lumber or Southern Yellow Pine, Douglas Fir, and SPF plywood, at a coverage rate of 300 to 350 square feet per gallon, the coated wood provides a flame-spread index of 25 or less and a smoke-developed index of 200 or less when tested in accordance with ASTM E84 or UL723, and qualifies as a Class A finish in accordance with IBC Section 803.1, IFC Section 803.1.2, and NFPA 703.

5.0 INSTALLATION

- **5.1 General:** FX Lumber Guard and FX Lumber Guard XT must be applied in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. The coatings have not been evaluated for use on surfaces that are subjected to washing or a sustained humidity of 80% or more. The coatings have not been evaluated for overcoating.
- **5.2 Field Application:** The manufacturer's published installation instructions and this Research Report must be



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strictly adhered to, and a copy of the instructions must be available on the jobsite at all times during installation.

The coatings are field-applied by spraying, rolling, or brushing in a one-coat application. The coating must be agitated before and throughout the application. The air temperature during application must not be below 45°F or above 95°F. The maximum moisture content for the substrate must not exceed 15% for dimensional lumber or 19% for plywood. The cure time for the coating is between 8 to 32 hours depending on air temperature. The material being treated must be clean, dry, and free from dirt, grease, oil, and all prior coatings such as paint, stains, and sealers. The coating must be applied by field applicators approved by FRCT, showing sufficient evidence that they possess the knowledge and equipment to conform with the application procedures of Fire Retardant Coatings of Texas.

5.2.1 Field Test: When observation of the treatment and/or field testing is required by the Code Official, such field testing must be conducted as follows:

The treated substrate will not have distinctive observable features. To ensure the substrate has been treated properly, the treated substrate must be exposed to the flame from a small fire source, such as a propane torch, applied to both a treated sample and an untreated sample for a period of not less than 15 seconds. The presence of the treatment is observable by comparison of the reactions of the substrates to the flame. Treated substrates will form a black char layer.

5.3 Factory-applied Coatings: The FX Lumber Guard and FX Lumber Guard XT may be applied to substrates noted in Section 1.3 by the approved applicators at the locations noted in Table 2.

6.0 CONDITIONS OF USE

- **6.1** Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict between the manufacturer's instructions and this report, this report governs.
- **6.2** Application is limited to the specific substrates set forth in Section 1.3.

- **6.3** Use of the coating is limited to exposed interior locations having a sustained humidity of less than 80 percent.
- **6.4** Field testing must be performed by the approved applicator, as indicated in Section 5.3, when required by the Code Official.
- **6.5** For field-applied coatings, a Certificate of Fire Retardant Treatment, as shown in Figure 1, must be submitted by the field applicator to the Code Official describing the material treated; the location of the treated materials, product batch number or order number, including the square footage of the area treated; and the application rate.
- **6.6** Factory-applied coating must be done by one of the approved applicators in Table 2, and must be labeled as described in Section 8 and as shown in Figure 2.
- **6.7** Special inspections may be required when determined to be necessary by the Code Official in accordance with IBC Section 1705.1.1, as applicable.
- **6.8** The coating is manufactured in Haslet, Texas, under a quality control program with inspections by Intertek Testing Services NA, Inc..

7.0 SUPPORTING EVIDENCE

- **7.1** Data in accordance with the ICC-ES Acceptance Criteria for Surface-applied Fire Retardant Coatings (AC363), dated February 2007 (editorially revised March 2012), and with NFPA 703, Standard for Fire Retardant Treated Wood and Fire Retardant Coatings for Building Materials, 2018 edition.
- **7.2** Intertek Listing Report "FX Lumber Guard and FX Lumber Guard XT".

8.0 IDENTIFICATION

8.1 Coating Containers: The FX Lumber Guard and FX Lumber Guard XT containers are identified by a marking bearing the report holder's name (Fire Retardant Coatings of Texas) and address, the product name, batch number (BC#), date of manufacture, shelf life, application



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instructions, the Intertek Mark as shown below, and the Code Compliance Research Report number (CCRR-1044).



8.2 Factory-applied Coatings: Lumber and plywood coated at one of the approved applicators noted in Table 2 must be identified by a label bearing the applicator's name, the report holder's name (Fire Retardant Coatings of Texas), the product name, and the Intertek Mark. See Figure 2.

9.0 OTHER CODES

This section is not applicable.

10.0 CODE COMPLIANCE RESEARCH REPORT USE

- **10.1** Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.
- **10.2** Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.
- **10.3** Reference to the https://bpdirectory.intertek.com is recommended to ascertain the current version and status of this report.

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TABLE 1 - PROPERTIES EVALUATED

PROPERTY	IBC SECTION ¹	IRC SECTION	IFC SECTION	IEBC SECTION
Surface burning characteristics	803.1	R302.9	803.1.1, 803.4	1205.9

TABLE 2 - APPROVED FACTORY-APPLICATOR LOCATIONS

MANUFACTURER	LOCATION	
AccuTreated	Deer Park, NY	
	Groveland, FL	
Global Fireproof Solutions, Inc.	Cartersville, GA	
Precision Applied Coatings	Frazeyburg, OH	
Enterprises (PACE)	Trazeyburg, Orr	
Chicago Flameproof and Wood	Montgomery, IL	
Specialties Corp.	Wionitgomery, it	
Chicago Flameproof and Wood		
Specialties Corp. –DBA North	Fort Worth, TX	
Texas Flameproof and Wood	TOTE WOITH, IX	
Specialties		



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FRG T	1150 Blue Mound R Office (817) 7	t Coatings of Tex Rd West #403 • Haslet 710-5233 Fax (817) 43 ww.frctexas.com	, Texas 76052	
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Figure 1 – Example of Certificate of Treatment (field application)



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Company Name

Applicator of Fire Retardant Coatings of Texas - FX Lumber Guard/FX Lumber Guard XT



CERTIFIED TO:

ASTM E84 Flame Spread < 25 Smoke Development < 200 Class A

Refer to Intertek's Directory of Building Products (http://bpdirectory.intertek.com) for detailed information

Figure 2 – Example of Factory Applicator Label



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