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ICC-ES Evaluation Report

ESR-4271

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Issued 08/2018
This report is subject to renewal 08/2019.

DIVISION: 09 00 00—FINISHES

SECTION: 09 96 43—FIRE-RETARDANT COATINGS

REPORT HOLDER:

FIREFREE COATINGS, INC.

EVALUATION SUBJECT:

**FIREFREE 88® (FF88®) AND
FIREFREE® CLASS A (FfA) FIRE-RETARDANT COATINGS**



“2014 Recipient of Prestigious Western States Seismic Policy Council (WSSPC) Award in Excellence”



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1.0 EVALUATION SCOPE

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)

Property evaluated:

Surface burning characteristics

2.0 USES

FireFree 88® (FF88®) and FireFree® Class A (FfA) are water based fire-retardant coatings, as defined in IFC Section 803.4, that are field-applied by licensed applicators approved by FireFree Coatings, Inc., to exposed surfaces of unfinished Douglas Fir dimensional lumber or oriented strand board (OSB) as an interior finish in the interior of new and existing construction to achieve the flame-spread and smoke-developed indices required by the applicable code.

3.0 DESCRIPTION

3.1 General:

FireFree 88® (FF88®) and FireFree® Class A (FfA) fire-retardant coatings are water-based latex paint that are brushed, rolled or sprayed using an airless spray gun. The FireFree 88® (FF88®) is available in 5-gallon (18.9 L) buckets and FireFree® Class A (FfA) is available in 1-gallon (3.8 L) and 5-gallon (18.9 L) buckets, each with a shelf-life of two years from the date of manufacture for unopened containers and when stored at temperatures between 50° F to 85° F (10° C to 29° C).

4.0 INSTALLATION

4.1 General:

FireFree 88® (FF88®) and FireFree® Class A (FfA) fire-retardant coatings must be installed in accordance with this report, the manufacturer's published installation instructions and the applicable code. The manufacturer's published installation instructions must be available at the jobsite at all times during installation.

The surface to be coated must be free of dust, dirt, oil, paint, stain, varnish, or sealant. The products are not for use on surfaces that may be subjected to washing or a maximum relative humidity of more than 75 percent. The products must be thoroughly mixed before and throughout the application and applied using an airless spray gun, rolling, or brushing in one coat. The ambient air temperature for application must be limited to a minimum of 50°F (10°C) and maximum of 85°F (29° C) and relative humidity of not more than 75%. The manufacturer must be consulted for specific application conditions. Make sure that each coat of the fire-retardant coatings is thoroughly dry to the touch before applying the next coat. The maximum moisture content for the substrate must be below 17 percent for oriented strand board (OSB) and dimensional lumber. The cure time of fire-retardant coating is a minimum of 8 hours to a maximum of 48 hours.

4.2 Application and Surface Burning Characteristics:

When applied to unfinished Douglas Fir dimensional lumber and oriented strand board (OSB) in accordance with minimum nominal film thickness and coverage rate noted in Table 1, the products provide a flame-spread index of 25 or less and a smoke-developed index of 200 or less when tested in accordance with ASTM E84 (UL 723) and qualifies as a Class A finish in accordance with IBC Section 803.1.1, IFC Section 803.1.1 and NFPA 703.

4.3 Field Test:

The minimum dry film thickness must be in accordance with the thickness stated in Table 1. During application, the wet film thickness must be checked using a wet film thickness gauge to determine if dry film thickness stated in Table 1 is achieved.

5.0 CONDITIONS OF USE

The FireFree 88® (FF88®) and Firefree® Class A (FfA) fire retardant coatings described in this report comply with, or are suitable alternatives to what is specified in, those

codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Installation must comply with this report, the manufacturer's published instructions, and the applicable code. In the event of a conflict between the manufacturer's published installation instructions and this report, this report governs.
- 5.2 Application must be limited to construction of the specific substrate set forth in Section 2.0 in exposed interior locations having a maximum relative humidity of less than 75 percent.
- 5.3 Field testing must be performed by the approved applicator, as indicated in Section 4.3, when required by the code official.
- 5.4 The manufacturer's Daily Application verification certificate as shown in Figures 1 and 2 must be submitted by the approved applicator to the code official describing the material treated; the location of the treated materials; the product batch number or order number, including the square footage of the area treated; and the application rate.
- 5.5 Special inspections may be required when determined to be necessary by the code official in accordance with Section 1705.1.1 of the IBC.
- 5.6 The performance of products with overcoating layers is outside the scope of this report.

5.7 The coatings are manufactured in Portland, Oregon, under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

Data in accordance with ICC-ES Acceptance Criteria for Surface-applied Fire-retardant Coatings (AC363), dated February 2007 (editorially revised June 2018)

7.0 IDENTIFICATION

7.1 Containers of FireFree 88® (FF88®) and FireFree® Class A (FfA) fire-retardant coatings are identified by the label bearing the manufacturer's name (FireFree Coatings, Inc.) and address, the product name, the date of manufacture, shelf life, the manufacturer's instructions for application, and the ICC-ES evaluation report number (ESR-4271).

7.2 The report holder's contact information is the following:

FIREFREE COATINGS, INC.
580 IRWIN STREET, SUITE 1
SAN RAFAEL, CALIFORNIA 94901
(415) 459-6488
www.firefree.com
info@firefree.com

TABLE 1—MINIMUM COVERAGE RATE

MINIMUM NOMINAL FILM THICKNESS	THICKNESS AND TYPE OF WOOD SUBSTRATE	COVERAGE RATE SQUARE FEET PER GALLON (m ² /L)
FireFree® Class A (FfA) 6 mils dry (9 mils wet)	¾ inch OSB	178 (4.37)
FireFree® Class A (FfA) 8 mils dry (12 mils wet)	Nominal 2x6 Douglas Fir sawn lumber	133.5 (3.27)
FireFree® Class A (FfA) 10 mils dry (15 mils wet)	¾ inch OSB	106.5 (2.61)
FireFree Class A (FfA) 20 mils dry (30 mils wet)	7/16 inch OSB	53 (1.30)
FireFree Class A (FfA) 20 mils dry (30 mils wet)	¾ inch OSB	53 (1.30)
FireFree 88® (FF88®) 10 mils dry (15 mils wet)	¾ inch OSB	106 (2.6)

SI: Units conversion: 1 Inch = 25.4 mm



Applicator’s Certification

To

This is to certify that the material described below has been applied with Firefree 88, a water latex based fire retardant coating, in accordance with Firefree Coatings Inc., application instructions and ICC-ES Report ESR-4271.

Description of wood material treated: _____

Spread Rate: _____

Project Name: _____ Location: _____

If, in the event, existing coated surfaces are damaged or altered, reapplication by an experienced approved applicator is required in order to keep in force the limited time warranty.

Certify by: Name: _____ / Company: _____

Address: _____ City / State: _____

Applicators Signature: _____ Title: _____

FIGURE 1—EXAMPLE OF MANUFACTURER’S CERTIFICATE FOR FIREFREE 88 (FF88)

Applicator’s Certification

To

This is to certify that the material described below has been applied with Firefree Class A, a water latex based fire retardant coating, in accordance with Firefree Coatings Inc., application instructions and ICC-ES Report ESR-4271.

Description of wood material treated: _____

Spread Rate: _____

Project Name: _____ Location: _____

If, in the event, existing coated surfaces are damaged or altered, reapplication by an experienced approved applicator is required in order to keep in force the limited time warranty.

Certify by: Name: _____ / Company: _____

Address: _____ City / State: _____

Applicators Signature: _____ Title: _____

FIGURE 2—EXAMPLE OF MANUFACTURER’S CERTIFICATE FOR FIREFREE CLASS A (FfA)