

# ICC-ES Evaluation Report

**ESR-1838**

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**DIVISION: 09—Finishes**  
**Section: 09960—High Performance Coatings****REPORT HOLDER:****NO BURN® INC.**  
1392 HIGH STREET  
WADSWORTH, OHIO 44281  
(330) 336-1500  
[www.noburn.com](http://www.noburn.com)**EVALUATION SUBJECT:****NO BURN® SURFACE APPLIED FIRE-RETARDANT  
COATINGS: NO BURN® ORIGINAL, NO BURN® PLUS, NO  
BURN® PLUS Mih, NO BURN® WOOD GARD AND NO  
BURN® WOOD GARD Mih****1.0 EVALUATION SCOPE****Compliance with the following codes:**

- 2006 *International Building Code*® (IBC)
- 2006 *International Residential Code*® (IRC)
- 2006 *International Fire Code*® (IFC)
- 2006 *International Existing Building Code*® (IEBC)

**Property evaluated:**

Surface-burning characteristics

**2.0 USES**

No Burn® fire-retardant coatings are field-applied to the exposed surfaces of wood substrates 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**

No Burn® Original, No Burn® Wood Gard and No Burn® Wood Gard Mih are translucent aqueous liquids; and No Burn® Plus and No Burn® Plus Mih are opaque aqueous liquids, supplied in 1- and 5-gallon (3.8 and 18.9 L) pails and 55-gallon (208 L) drums. The coatings have a shelf life of three years when stored at temperatures between 40°F and 90°F (4.4°C and 32.2°C). The coatings, when applied to specific wood substrates, have the flame spread classifications noted in Table 1 of this report and have a smoke-developed index of 200 or less.

**4.0 INSTALLATION****4.1 General:**

Application of the coatings must comply with this report and the No Burn®, Inc., published instructions, and must be by applicators approved by No Burn®, Inc., as being qualified to perform such applications. The manufacturer's instructions must be available at the jobsite at all times during application. The surfaces to be coated must be dry, clean and free from dirt, grease, oil and all prior coating materials such as paint, stains and sealers. The moisture content of the wood substrate immediately before coating application must not exceed 19 percent. Application is limited to the specific substrates noted in Table 1 and to exposed interior, conditioned and unconditioned locations with a sustained humidity of less than 80 percent. The coatings are applied at an application rate of 300 square feet per gallon (7.35 m<sup>2</sup>/L) per coat by spraying, roller or brush. No Burn® Wood Gard and No Burn® Wood Gard Mih are applied in two coats. No Burn® Original, No Burn® Plus and No Burn® Plus Mih are applied in one coat. Wait-time between applications is 30 minutes. Surface and ambient temperatures before and during application must be above 40°F (4.4°C). Surface temperature must not exceed 100°F (37.7°C) during application.

For No Burn® Original, the wet film thickness of each coat must not be less than 5 mils (1.27 mm). For No Burn® Wood Gard and No Burn® Wood Gard Mih, the wet film thickness of each coat must not be less than 5 mils (1.27 mm) and the total dry film thickness must not be less than 4 mils (1.0 mm). For No Burn® Plus and No Burn® Plus Mih, the wet film thickness of the total applied coating must not be less than 6 mils (1.52 mm) and the total dry film thickness must not be less than 3.6 mils (0.92 mm). No Burn® Original absorbs into the wood substrate and cannot be measured for dry film thickness.

No Burn® Plus may be overcoated with as many as seven coats of latex paint.

An installation certificate as shown in Figure 1 must be submitted by the certified applicator to the code official describing the material treated; the location of the treated materials, including the size of the area treated; and the application rate.

**4.2 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:

**4.2.1 No Burn® Original:** The treated substrate will not have distinctive observable features. To ensure the wood surface has been treated properly, the wood surface must be field tested. For field testing, the flame from a small torch powered by a propane cylinder is applied to the treated area and to a scrap of untreated substrate material for a period of not less than 10 seconds. The presence of the treatment must be observable through the comparison of the reactions of the materials to the flame.

**4.2.2 No Burn® Wood Gard and No Burn® Wood Gard Mih:** Presence of the coatings can be observed by the distinctive color dye on the treated substrate. For field testing, the flame from a small torch powered by a propane cylinder is applied to the treated area and to a scrap of untreated substrate material for a period of not less than 10 seconds. The presence of the treatment must be observable through the comparison of the reactions of the materials to the flame.

**4.2.3 No Burn® Plus and No Burn® Plus Mih:** Presence of the coatings can be observed by the distinctive white color on the treated substrate. For field testing of the applied thickness, a standard painter's thickness gage is used to measure the thickness during the application. The finished dry mil thickness will be 0.60 times the wet mil thickness.

For field testing, the flame from a small torch powered by a propane cylinder is applied to the treated area. Presence of the coating can be observed when the coating begins to expand and form a black char layer.

**5.0 CONDITIONS OF USE**

The No Burn® coatings described in this report comply with, or are suitable alternates to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1** The coatings are applied as described in this report, the manufacturer's instructions and the applicable code. In the event of a conflict between the manufacturer's instructions and this report, this report governs.
- 5.2** Application is limited to the substrates described in Table 1.
- 5.3** The coatings may not be overcoated with any material, except for No Burn Plus, which may be overcoated with up to seven coats of latex paint.
- 5.4** An installation certificate as shown in Figure 1 must be completed by the applicator and submitted to the code official.
- 5.5** Use of the coating is limited to exposed interior locations having a sustained humidity of less than 80 percent.
- 5.6** Special inspection may be required when determined to be necessary by the code official in accordance with IBC Section 1704.13.
- 5.7** The coatings are manufactured in Mississauga, Ontario, Canada, and in Akron, Ohio, under a quality control program with inspections by Intertek Testing Services NA Ltd. (AA-647).

**6.0 EVIDENCE SUBMITTED**

Data in accordance with the ICC-ES Acceptance Criteria for Surface-applied Fire-retardant Coatings (AC308), dated February 2007.

**7.0 IDENTIFICATION**

Containers of the coatings are identified by a label bearing the No Burn®, Inc., name and address, the product name, the batch number, the expiration date, application instructions, the name or logo of the inspection agency (Intertek Testing Services NA Ltd.) and the evaluation report number (ESR-1838).

**TABLE 1—FLAME-SPREAD CLASSIFICATION**

NO BURN® PRODUCT NAME	SUBSTRATE		
	Douglas Fir	Red Oak	Oriented Strand Board
Original	A	B	NR
Plus	A <sup>1</sup>	A <sup>1</sup>	A <sup>1</sup>
Plus Mih	A	NR	A
Wood Gard	A	B	A
Wood Gard Mih	A	NR	NR

NR = Not recognized.

<sup>1</sup>Coating may be overcoated with up to seven coats of latex paint.

**No Burn® Product  
Application Certificate**

**Building Location:**

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Address	City	State
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**Building Description and Use:**

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**Certified Applicator:** \_\_\_\_\_

Name	Company
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AREA TREATED (Describe)	SQUARE FOOTAGE	PRODUCT APPLIED	SUBSTRATE	QUANTITY APPLIED	DATE OF APPLICATION
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					/  /
					/  /
					/  /
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**Applicator Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

FIGURE 1—APPLICATION CERTIFICATE