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# Technical Evaluation Report TER 1905-03

No-Burn® Plus, No-Burn® Plus ThB, and No-Burn® Plus XD used as a Thermal Barrier or Ignition Barrier in Select Assemblies

No-Burn®, Inc.

**Products:** 

No-Burn® Plus No-Burn® Plus ThB No-Burn® Plus XD

Issue Date: July 1, 2019 Revision Date: February 7, 2020 Subject to Renewal: July 1, 2020



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# COMPANY

## INFORMATION:

No-Burn®, Inc.

1392 High St Wadsworth, OH 44281-8257

800-989-8577

info@noburn.com

noburn.com

# DIVISION: 09 00 00 - FINISHES

### SECTION: 09 96 46 Intumescent Paints

# 1 PRODUCTS EVALUATED<sup>1</sup>

1.1 No-Burn® Plus No-Burn® Plus ThB No-Burn® Plus XD

# 2 APPLICABLE CODES AND STANDARDS<sup>2,3</sup>

- 2.1 Codes
  - 2.1.1 IBC—12, 15, 18: International Building Code®
  - 2.1.2 IRC—12, 15, 18: International Residential Code®
  - 2.1.3 IEBC—12, 15, 18: International Existing Building Code
- 2.2 Standards and Referenced Documents
  - 2.2.1 DrJ Evaluation Criteria (EC) 045: Evaluation Criteria for Field Applied Coatings on Spray Polyurethane Foam for use as a Thermal Barrier or Ignition Barrier
  - 2.2.2 NFPA 286: Standard Methods of Fire Test for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth
  - 2.2.3 UL 1715: Fire Test of Interior Finish Material



<sup>&</sup>lt;sup>1</sup> Building codes require data from valid research reports be obtained from <u>approved sources</u>. Agencies who are accredited through ISO/IEC 17065 have met the <u>code requirements</u> for approval by the <u>building official</u>. DrJ is an ISO/IEC 17065 <u>ANSI-Accredited Product Certification Body</u> – <u>Accreditation #1131</u>.

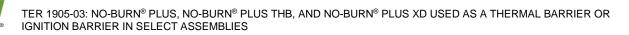
Through ANSI accreditation and the <u>IAF MLA</u>, DrJ certification can be used to obtain product approval in any <u>jurisdiction</u> or country that has <u>IAF MLA Members & Signatories</u> to meet the <u>Purpose of the MLA</u> – "certified once, accepted everywhere."

Building official approval of a licensed <u>registered design professional</u> (RDP) is performed by verifying the RDP and/or their business entity complies with all professional engineering laws of the relevant <u>jurisdiction</u>. Therefore, the work of licensed RDPs is accepted by <u>building officials</u>, except when plan (i.e. peer) review finds an error with respect to a specific section of the code. Where this TER is not approved, the <u>building official</u> responds in writing stating the reasons for <u>disapproval</u>.

For more information on any of these topics or our mission, product evaluation policies, product approval process, and engineering law, visit <u>dricertification.org</u> or call us at 608-310-6748.

<sup>&</sup>lt;sup>2</sup> Unless otherwise noted, all references in this TER are from the 2018 version of the codes and the standards referenced therein (e.g., ASCE 7, NDS, ASTM). This material, design, or method of construction also complies with the 2000-2015 versions of the referenced codes and the standards referenced therein.

<sup>&</sup>lt;sup>3</sup> All terms defined in the applicable building codes are italicized.





# **3** PERFORMANCE EVALUATION

- 3.1 The products listed in Section 1 have been evaluated for compliance with the following:
- 3.1.1 Approval for use as a thermal barrier in accordance with <u>*IBC* Section 2603.5</u>, <u>*IBC* Section 2603.9</u><sup>4</sup>, and <u>*IRC* Section R316.6</u>.
- 3.1.2 Approval for use as an ignition barrier in accordance with <u>IBC Section 2603.4.1.6</u>, <u>IBC Section 2603.9</u><sup>5</sup>, <u>IRC Section R316.5.3</u>, <u>IRC Section R316.5.4</u>, and <u>IRC Section R316.6</u>.
- 3.2 Any code compliance issues not specifically addressed in this section are outside the scope of this TER.
- 3.3 Any engineering evaluation conducted in the preparation of this TER was performed on the dates provided in this TER and within DrJ's professional scope of work.

#### 4 PRODUCT DESCRIPTION AND MATERIALS

- 4.1 No-Burn® Plus, No-Burn® Plus ThB, and No-Burn® Plus XD are water-based, liquid applied, intumescent coatings. When exposed to elevated temperatures and flame, they expand and form a protective char layer.
- 4.2 The products are packaged in either 5 gallon (18.9 liter) pails or 55 gallon (208 liter) drums.
- 4.3 Shelf Life
  - 4.3.1 No-Burn® Plus and No-Burn® Plus XD: Two years when stored in unopened containers between 40°F (4.4°C) and 90°F (32.2°C).
  - 4.3.2 No-Burn® Plus ThB: Eighteen months when stored in unopened containers between 40°F (4.4°C) and 90°F (32.2°C).
- 4.4 No-Burn® Plus, No-Burn® Plus ThB, and No-Burn<sup>®</sup> Plus XD must be prepared with a power mixer (500-1500 RPM) or equivalent for a minimum of 5 minutes per container prior to application.

#### **5** APPLICATIONS

- 5.1 Thermal Barrier Assemblies
  - 5.1.1 No-Burn® Plus ThB is used to protect spray-applied polyurethane foam (SPF) insulation to allow the SPF to be installed without a prescriptive 15-minute thermal barrier in accordance with <u>IBC Section 2603.9</u><sup>6</sup> and <u>IRC Section R316.6</u>. The approved assemblies are as listed in Table 1.



<sup>4 2012</sup> IBC Section 2603.10

<sup>5 2012</sup> IBC Section 2603.10

<sup>6 2012</sup> IBC Section 2603.10

		TABLE T. THERIM					
Substrate	No-Burn® Product Name	Max. Thickness of Walls & Vertical Surfaces (in)	Max. Thickness of Ceilings, Underside of Roof	Applica Minimum Thickne	Installed	Burn <sup>®</sup> Coating Theoretic	Evaluation
			Sheathing/Rafters & Floors (in)	Wet Film		Application Rate (gallons/100 ft <sup>2</sup> )	Report <sup>1</sup>
BASF ENERTITE® G Open Cell Spray Foam	Plus ThB <sup>2</sup>	8	14	14	9	0.87	CCRR-1032
BASF ENERTITE® NM Open Cell Spray Foam	Plus ThB <sup>2</sup>	8	14	14	9	0.87	CCRR-1032
BASF ENERTITE® IB-418 Open Cell Spray Foam	Plus ThB <sup>2</sup>	8	14	14	9	0.87	CCRR-1032
BASF SPRAYTITE® SP Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6	8	14	9	0.87	CCRR-1031
BASF SPRAYTITE® 158 Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6	8	14	9	0.87	CCRR-1031
BASF SPRAYTITE® 81205 Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6	8	14	9	0.87	CCRR-1031
BASF SPRAYTITE® 178 Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6	8	17	11	1.06	CCRR-1031
BASF SPRAYTITE <sup>®</sup> 81206 Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6	8	17	11	1.06	CCRR-1031
BASF WALLTITE® HP+ Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6	8	17	11	1.06	CCRR-1031
BASF WALLTITE® US-N Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6	8	17	11	1.06	CCRR-1031
BASF WALLTITE® US Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6	8	17	11	1.06	CCRR-1031
BASF WALLTITE® 200 Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6	8	17	11	1.06	ESR-2642
Carlisle SealTite Pro Open Cell Spray Foam	Plus ThB <sup>2</sup>	8.5	14	14	9	0.87	ER-624
Carlisle Foamsulate 50 HY Open Cell Spray Foam	Plus ThB <sup>2</sup>	8.5	14	14	9	0.87	ER-540
Carlisle SealTite Pro No Mix Open Cell Spray Foam	Plus ThB <sup>2</sup>	8.5	14	14	9	0.87	ER-616
Carlisle Foamsulate 50 Open Cell Spray Foam	Plus ThB <sup>2</sup>	8.5	14	14	9	0.87	ER-351
Carlisle SealTite Pro High Yield Open Cell Spray Foam	Plus ThB <sup>2</sup>	8.5	14	14	9	0.87	ER-623
Carlisle SealTite Pro Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6.5	9.5	14	9	0.87	ER-621
Carlisle Foamsulate Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6.5	9.5	14	9	0.87	ER-626
Carlisle SealTite Pro One Zero Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6.5	9.5	14	9	0.87	ER-640
Carlisle Foamsulate HFO Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6.5	9.5	14	9	0.87	ER-650
Demilec SEALECTION® 500 Open Cell Spray Foam	Plus ThB <sup>2</sup>	8	14	16	11	1.0	CCRR-1063

#### TABLE 1. THERMAL BARRIER ASSEMBLIES

TER 1905-03: NO-BURN® PLUS, NO-BURN® PLUS THB, AND NO-BURN® PLUS XD USED AS A THERMAL BARRIER OR IGNITION BARRIER IN SELECT ASSEMBLIES







Substrate		Max. Thickness	Max. Thickness	Applica			
	No-Burn® Product	of Walls & Vertical Surfaces (in)	of Ceilings, Underside of Roof Sheathing/Rafters		Installed ss (mils)	Theoretic Application Rate	Evaluation Report <sup>1</sup>
	Name		& Floors (in)	Wet Film	Dry Film	(gallons/100 ft <sup>2</sup> )	
Demilec Agribalance® Open Cell Spray Foam	Plus ThB <sup>2</sup>	8	14	16	11	1.0	ESR-2600
Demilec Heatlok HFO Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6.5	9.5	16	11	1.0	ESR-4073
Demilec Heatlok XT Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6.5	9.5	16	11	1.0	ESR-3883
GacoEZSpray F4500 Open Cell Spray Foam	Plus ThB <sup>2</sup>	12	16	14	9	0.87	CCRR-1107
Gaco F183M Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6.5	9	14	9	0.87	CCRR-1002
Gaco OnePass F1850 Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6.5	9.5	14	9	0.87	CCRR-1043
Gaco OnePass Low GWP F1880Open Cell Spray Foam	Plus ThB <sup>2</sup>	9	12.5	14	9	0.87	CCRR-1106
General Coatings Ultra-Thane 202 Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6.5	9.5	14	9	0.87	CCRR-0345
Icynene Classic Open Cell Spray Foam	Plus ThB <sup>2</sup>	6	14	16	11	1.0	ESR-1826
Icynene Classic Ultra Open Cell Spray Foam	Plus ThB <sup>2</sup>	6	14	16	11	1.0	ESR-1826
Icynene Classic Ultra Select Open Cell Spray Foam	Plus ThB <sup>2</sup>	6	14	16	11	1.0	ESR-1826
Icynene Classic Plus Open Cell Spray Foam	Plus ThB <sup>2</sup>	6	14	16	11	1.0	ESR-1826
Icynene Prime Gold Open Cell Spray Foam	Plus ThB <sup>2</sup>	6	14	16	11	1.0	ESR-4323
Icynene No Mix Open Cell Spray Foam	Plus ThB <sup>2</sup>	8 ½	14	14	9	0.87	CCRR-1123
Icynene ProSeal Closed Cell Spray Foam	Plus ThB <sup>2</sup>	4	8	14	9	0.87	ESR-3500
Icynene ProSeal LE Closed Cell Foam	Plus ThB <sup>2</sup>	4	8	14	9	0.87	ESR-3500
Icynene ProSeal Eco Closed Cell Spray Foam	Plus ThB <sup>2</sup>	4	8	14	9	0.87	ESR-3493
Icynene ProSeal HFO Closed Cell Foam	Plus ThB <sup>2</sup>	4	8	14	9	0.87	CCRR-1108
Icynene ProSeal HFO CW Closed Cell Foam	Plus ThB <sup>2</sup>	4	8	14	9	0.87	CCRR-1108
Icynene MD-C-200 Closed Cell Spray Foam	Plus ThB <sup>2</sup>	4	8	14	9	0.87	ESR-3199
Johns Manville JM Corbond Open Cell Spray Foam	Plus ThB <sup>2</sup>	8	14	14	9	0.87	CCRR-1079
Johns Manville JM Corbond OCX Open Cell Spray Foam	Plus ThB <sup>2</sup>	8	14	14	9	0.87	ER-372







Substrate		Max. Thickness	Max. Thickness of Ceilings, Underside of Roof Sheathing/Rafters & Floors (in)	Applica			
	No-Burn® Product	of Walls & Vertical Surfaces (in)			Installed ss (mils)	Theoretic	Evaluation Report <sup>1</sup>
	Name			Wet Film	Dry Film	Application Rate (gallons/100 ft <sup>2</sup> )	Report.
Johns Manville JM Corbond III Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6	8	14	9	0.87	ER-146
Johns Manville JM Corbond MCS Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6	8	14	9	0.87	ESR-3159
Lapolla Foam-Lok FL 450 Open Cell Spray Foam	Plus ThB <sup>2</sup>	6	14	16	11	1.0	ESR-4242
Lapolla Foam-Lok FL 500 Open Cell Spray Foam	Plus ThB <sup>2</sup>	8 1⁄2	14	14	9	0.87	CCRR-1091
Lapolla Foam-Lok FL 750 Open Cell Spray Foam	Plus ThB <sup>2</sup>	6	14	16	11	1.0	ESR-4322
Lapolla Foam-Lok FL 2000-4G Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6	9	14	9	0.87	CCRR-1025
Lapolla Foam-Lok FL 2000 Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6	9	14	9	0.87	ESR-2629
SES EasySeal 0.5 Open Cell Spray Foam	Plus ThB <sup>2</sup>	10	14	14	9	0.87	ER-492
SES SucraSeal 0.5 Open Cell Spray Foam	Plus ThB <sup>2</sup>	9	14	14	9	0.87	ESR-3375
SES Nexseal 2.0 Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6	9.5	14	9	0.87	ER-374
SWD Quik-Shield 108 Open Cell Spray Foam	Plus ThB <sup>2</sup>	8	14	14	9	0.87	CCRR-1051
SWD Quick-Shield 108YM Open Cell Spray Foam	Plus ThB <sup>2</sup>	8	14	14	9	0.87	CCRR-1051
SWD Quik-Shield 112XC Closed Cell Spray Foam	Plus ThB <sup>2</sup>	5	8	14	9	0.87	CCRR-1011
SWD Quik-Shield 118 Closed Cell Spray Foam	Plus ThB <sup>2</sup>	5	8	14	9	0.87	CCRR-1093
UPC 500 Open Cell Spray Foam	Plus ThB <sup>2</sup>	8.5	14	14	9	0.87	ESR-3803
UPC 500 Max Open Cell Spray Foam	Plus ThB <sup>2</sup>	8.5	14	14	9	0.87	ESR-3803
UPC 500 OCX Open Cell Spray Foam	Plus ThB <sup>2</sup>	8.5	14	14	9	0.87	ESR-3803
UPC 2.0 Closed Cell Spray Foam	Plus ThB <sup>2</sup>	6.5	9.5	14	9	0.87	CCRR-0345
Victory Polymers VPC-CC SuperLift Closed Cell Foam	Plus ThB <sup>2</sup>	6.5	9.5	16	11	1.0	ESR-4334
Victory Polymers VPC-CC SuperYield Closed Cell Foam	Plus ThB <sup>2</sup>	6.5	9.5	16	11	1.0	ESR-4334

SI: 1 mil = 0.0254 mm, 1 inch = 25.4 mm, 1 gal = 3.79 L

1. Use of No-Burn<sup>®</sup> Plus ThB for use with any insulation product listed herein is conditional upon that insulation product's recognition in a valid evaluation report by an approved evaluation entity. Users shall independently verify the current validity of any evaluation report referenced herein. ER-Evaluation Reports from IAPMO Uniform Evaluation Service, CCRR-Code Compliance Research Reports from Intertek, and ESR-Evaluation Service Reports from ICC-ES.

2. No-Burn<sup>®</sup> Plus ThB or Plus may be over coated with latex paint with a pH of 7 to 8.



TER 1905-03: NO-BURN<sup>®</sup> PLUS, NO-BURN<sup>®</sup> PLUS THB, AND NO-BURN<sup>®</sup> PLUS XD USED AS A THERMAL BARRIER OR IGNITION BARRIER IN SELECT ASSEMBLIES



# 5.2 Ignition Barrier Assemblies

- 5.2.1 No-Burn® Plus, No-Burn® Plus ThB and No-Burn® Plus XD may be used to protect SPF in attics and crawlspaces to allow the SPF to be installed without a prescriptive ignition barrier in accordance with <u>IBC</u> <u>Section 2603.4.1.6</u> and <u>*IBC* Section 2603.9</u> and <u>*IRC* Sections R316.5.3</u> and <u>R316.5.4</u>. The approved assemblies are shown in Table 2.
- 5.2.2 The assemblies listed in Table 2 may be installed in an attic or crawlspace without a prescriptive ignition barrier when all of the following are met:
  - 5.2.2.1 Entry into the attic or crawlspace is only for the maintenance, repair or servicing of the building or equipment. No storage is permitted.
  - 5.2.2.2 There are no interconnected attic or crawlspace areas.
  - 5.2.2.3 Air is not circulated to other parts of the building.
  - 5.2.2.4 The foam plastic insulation does not exceed the maximum density and thickness shown in Table 2.
  - 5.2.2.5 Combustion air is provided in accordance with the <u>IBC Section 701</u>.
  - 5.2.2.6 When required, attic ventilation is provided in accordance with <u>*IBC* Section 1202.2</u><sup>7</sup> or <u>*IRC* Section R806</u> and crawlspace ventilation is provided in accordance with <u>*IBC* Section 1202.4</u><sup>8</sup>.
  - 5.2.2.6.1 Exception: Unvented attics and crawlspaces meeting the requirements of <u>IBC Section 1202.3</u>, <u>IRC Section R408.3</u> or <u>Section R806.5</u>.



<sup>7 2012</sup> IBC Section 1203.2, 2015 IBC Section 1203.2

<sup>8 2012</sup> IBC Section 1203.3, 2015 IBC Section 1203.4





#### TABLE 2. IGNITION BARRIER ASSEMBLIES

		Max.	Max. Thickness	Application of No-Burn® Coating			
Substrate	No-Burn® Product Name	Thickness of Walls & Vertical Surfaces (in)	of Ceilings, Underside of Roof Sheathing/Rafters & Floors (in)	Minimum Installed Thickness (mils) Wet Dry		Theoretic Application Rate (gallons per	
		. ,	. ,	Film	Film	100 ft <sup>2</sup> )	
BASF ENERTITE <sup>®</sup> G Open Cell Spray Foam	Plus XD or Plus ThB	11 ¼	16	6	4	0.37	
BASF ENERTITE® NM Open Cell Spray Foam	Plus XD or Plus ThB	11 ¼	16	6	4	0.37	
BASF SPRAYTITE® 158 and 81205 Closed Cell Spray Foam	Plus XD or Plus ThB	8	8	6	4	0.37	
BASF SPRAYTITE <sup>®</sup> SP Closed Cell Spray Foam	Plus XD or Plus ThB	8	8	6	4	0.37	
BASF SPRAYTITE® 178 and 81206 Closed Cell Spray Foam	Plus, Plus XD or Plus ThB	9 1⁄4	11 ¼	12	7	0.75	
BASF WALLTITE <sup>®</sup> US Closed Cell Spray Foam	Plus, Plus XD or Plus ThB	9 1⁄4	11 ¼	12	7	0.75	
BASF WALLTITE <sup>®</sup> US-N Closed Cell Spray Foam	Plus, Plus XD or Plus ThB	9 1⁄4	11 ¼	12	7	0.75	
BASF WALLTITE <sup>®</sup> HP+ Closed Cell Spray Foam	Plus, Plus XD or Plus ThB	9 1⁄4	11 ¼	12	7	0.75	
BASF COMFORT FOAM® 178 Closed Cell Spray Foam	Plus, Plus XD or Plus ThB	9 1⁄4	11 ¼	12	7	0.75	
Carlisle SealTite Pro Open Cell Spray Foam	Plus XD or Plus ThB	11 ¼	16	6	4	0.37	
Carlisle Foamsulate 50 HY Open Cell Spray Foam	Plus XD or Plus ThB	11 1⁄4	16	6	4	0.37	
Carlisle SealTite Pro No Mix Open Cell Spray Foam	Plus XD or Plus ThB	11 1⁄4	16	6	4	0.37	
Carlisle Foamsulate 50 Open Cell Spray Foam	Plus XD or Plus ThB	11 1⁄4	16	6	4	0.37	
Carlisle SealTite Pro High Yield Open Cell Spray Foam	Plus XD or Plus ThB	11 1⁄4	16	6	4	0.37	
DAP Touch 'n Seal® 2.2 PCF Closed Cell Spray Foam	Plus XD or Plus ThB	2	2	8	5	0.5	
Demilec SEALECTION® 500 Open Cell Plus XD or Plus Spray Foam ThB		9 1⁄4	11 ¼	6	4	0.37	
Demilec Agribalance® Open Cell Spray Foam	Plus XD or Plus ThB	9 1/2	11 ½	10	6	0.63	
GacoEZSpray F4500 Open Cell Spray Foam	Plus ThB	12	16	6	4	0.37	
ICP Handi-Foam® E-84 Class 1(A) Closed Cell Spray Foam	Plus XD or Plus ThB	2	2	10	6	0.63	
Icynene Classic Open Cell Spray Foam	Plus XD or Plus ThB	5 1⁄2	14	6	4	0.37	





	No-Burn® Product Name	Max.	Max. Thickness	Application of No-Burn <sup>®</sup> Coating		
Substrate		Thickness of Walls & Vertical Surfaces (in)	of Ceilings, Underside of Roof Sheathing/Rafters & Floors	Minimum Installed Thickness (mils)		Theoretic Application Rate
			(in)	Wet Film	Dry Film	(gallons per 100 ft²)
Icynene Classic Ultra Open Cell Spray Foam	Plus XD or Plus ThB	5 ½	14	6	4	0.37
lcynene Classic Ultra Select Open Cell Spray Foam	Plus XD or Plus ThB	5 ½	14	6	4	0.37
lcynene Classic Plus Open Cell Spray Foam	Plus XD or Plus ThB	8 14		6	4	0.37
Icynene Prime Gold Open Cell Spray Foam	Plus XD or Plus ThB	5 ½	14	6	4	0.37
Icynene ProSeal Eco Closed Cell Spray Foam	Plus XD or Plus ThB	7 1⁄4	9 1⁄4	5	3	0.31
Icynene MD-C-200 Closed Cell Spray Foam	Plus, Plus XD or Plus ThB	11 ¼	11 ¼	16	10	1.0
Lapolla Foam-Lok FL 450 Open Cell Spray Foam	Plus XD or Plus ThB	5 1⁄2	14	6	4	0.37
Lapolla Foam-Lok FL 750 Open Cell Spray Foam	Plus XD or Plus ThB	8	14	6	4	0.37
SWD Quick Shield 106 Open Cell Spray Foam	Plus ThB	8	14	6	4	0.43
Tiger Foam Insulation E-84 Fire Rated SPF Class 1 Spray Foam	Plus XD or Plus ThB	3.5	3.5	10	6	0.63

1. No-Burn $^{\circ}$  Plus, Plus XD, or Plus ThB may be overcoated with latex paint with a pH of 7 to 8.

# 6 INSTALLATION

6.1 Installation shall comply with the manufacturer's installation instructions, and this TER. In the event of a conflict between the manufacturer's installation instructions and this TER, the more restrictive shall govern.

## 6.2 Installation Procedure

- 6.2.1 The substrates that the No-Burn® products are applied to shall be clean, dry and free from loose dirt, debris, grease, oil or any other materials that would inhibit proper adhesion of No-Burn® products, including, but not limited to, any paints, stains or sealants.
- 6.2.2 No-Burn® Plus, No-Burn® Plus ThB, and No-Burn® Plus XD are white in color.
- 6.2.3 A painter's gauge shall be used to verify the proper thickness during application.
- 6.2.4 The dry mil thickness will be 0.4 to 0.7 times the wet mil thickness.
- 6.2.5 Apply the No-Burn® products only to the substrates listed in Table 1 and Table 2 in accordance with the assembly selected.
- 6.2.6 Substrates shall be fully protected from the weather and fully installed prior to application.
- 6.2.7 Both the substrate surface and the ambient temperature shall be maintained between 40°F (4.4°C) and 100°F (37.7°C) immediately before and during application. Minimum cure time is 24 hours.
- 6.2.8 Apply the coatings at the rate specified in Table 1 and Table 2.
- 6.2.9 Coatings may be applied via roller, brush, or spraying equipment.





6.2.10 After curing, the coating may be overcoated with latex paint per the paint manufacturer's instructions.

# 7 TEST ENGINEERING SUBSTANTIATING DATA

- 7.1 Reports of fire tests in accordance with NFPA 286, and UL 1715.
- 7.2 Data in accordance with DrJ EC 45.
- 7.3 Supporting documentation from spray foam manufacturers and evidence of code compliance.
- 7.4 No-Burn® Quality control documentation in accordance with DrJ policies.
- 7.5 Some information contained herein is the result of testing and/or data analysis by other sources which conform to <u>IBC Section 1703</u> and relevant <u>professional engineering law</u>. DrJ relies on accurate data from these sources to perform engineering analysis. DrJ has reviewed and found the data provided by other professional sources to be credible.
- 7.6 Where appropriate, DrJ's analysis is based on design values that have been codified into law through codes and standards (e.g., *IBC, IRC, NDS*<sup>®</sup>, and *SDPWS*). This includes review of code provisions and any related test data that aids in comparative analysis or provides support for equivalency to an intended end-use application. Where the accuracy of design values provided herein is reliant upon the published properties of commodity materials (e.g., lumber, steel, and concrete), DrJ relies upon the grade mark, stamp, and/or design values provided by raw material suppliers to be accurate and conforming to the mechanical properties defined in the relevant material standard.

# 8 FINDINGS

- 8.1 When used and installed in accordance with this TER and the manufacturer's installation instructions, the product(s) listed in Section 1.1 are approved for the following:
- 8.1.1 No-Burn® Plus ThB is approved for the protection of SPF insulation to allow the SPF to be installed without a prescriptive 15-minute thermal barrier.
- 8.1.2 No-Burn® Plus, No-Burn® Plus ThB, and No-Burn® Plus XD is approved for the protection of SPF in attics and crawlspaces to allow the SPF to be installed without a prescriptive ignition barrier.
- 8.2 *IBC* Section 104.11 (*IRC* Section R104.11 and *IFC* Section 104.9 are similar) states:

**104.11** Alternative materials, design and methods of construction and equipment. The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been *approved*. An alternative material, design or method of construction shall be *approved* where the *building official* finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, not less than the equivalent of that prescribed in this code...Where the alternative material, design or method of construction is not *approved*, the *building official* shall respond in writing, stating the reasons the alternative was not *approved*.

- 8.3 This product has been evaluated in the context of the codes listed in Section 1.1 and is compliant with all known state and local building codes. Where there are known variations in state or local codes applicable to this evaluation, they are listed here.
  - 8.3.1 No known variations

# 9 CONDITIONS OF USE

- 9.1 When used in accordance with this report, No-Burn® Plus, No-Burn® Plus ThB, and No-Burn® Plus XD comply with the codes listed in Section 2, subject to the following:
- 9.1.1 Assemblies shall be limited to those shown in Table 1 and Table 2, as applicable.
- 9.1.2 No-Burn® Plus, No-Burn® Plus ThB, and No-Burn® Plus XD shall be applied only to areas within the water resistive barrier of the building envelope or in areas that are otherwise not exposed to weather.



TER 1905-03: NO-BURN® PLUS, NO-BURN® PLUS THB, AND NO-BURN® PLUS XD USED AS A THERMAL BARRIER OR IGNITION BARRIER IN SELECT ASSEMBLIES



- 9.1.3 When required by the building official, inspections in accordance with <u>*IRC* Section R109.1</u> or special inspections in accordance with <u>*IBC* Section 1705.1.1</u> shall be conducted. Where required in accordance with <u>*IBC* Section 1704.2.3</u>, a statement of special inspections shall be submitted to the building official.
- 9.2 Where required by the *building official*, also known as the authority having jurisdiction (AHJ) in which the project is to be constructed, this TER and the installation instructions shall be submitted at the time of *permit* application.
- 9.3 At a minimum, this product shall be installed per Section 6 of this TER.
- 9.4 This product is manufactured under a third-party quality control program in accordance with <u>*IBC* Section 104.4</u> and <u>110.4</u> and <u>*IRC* Section R104.4</u> and <u>R109.2</u>.
- 9.5 The actual design, suitability, and use of this TER, for any particular building, is the responsibility of the <u>owner</u> or the owner's authorized agent. Therefore, the TER shall be reviewed for code compliance by the <u>building official</u> for acceptance.
- 9.6 The use of this TER is dependent on the manufacturer's in-plant QC, the ISO/IEC 17020 third-party quality assurance program and procedures, proper installation per the manufacturer's instructions, the *building official's* inspection, and any other code requirements that may apply to demonstrate and verify compliance with the applicable building code.

#### 10 IDENTIFICATION

- 10.1 The product(s) listed in Section 1 are identified by a label on the board or packaging material bearing the manufacturer's name, product name, TER number, and other information to confirm code compliance.
- 10.2 Additional technical information can be found at <u>noburn.com</u>.

# **11 REVIEW SCHEDULE**

- 11.1 This TER is subject to periodic review and revision. For the most recent version of this TER, visit drjcertification.org.
- 11.2 For information on the current status of this TER, contact <u>DrJ Certification</u>.

