Listing and Technical Evaluation Report™

A Duly Authenticated Report from an Approved Agency

Report No: 1905-03

Issue Date: July 1, 2019

Revision Date: June 24, 2026

Subject to Renewal: July 1, 2027

No-Burn® Products Used as a Thermal Barrier, Ignition Barrier, Class II Vapor Retarder, and in Exterior Wall Assemblies

Trade Secret Report Holder:

No-Burn®, Inc.

Phone: 800-989-8577 Website: noburn.com Email: info@noburn.com

CSI Designations:

DIVISION: 09 00 00 - FINISHES Section: 09 96 46 - Intumescent Painting

1 Innovative Products Evaluated[1]

1.1 No-Burn Plus ThB and No-Burn ThB Spray Seal

2 Product Description and Materials

2.1 No-Burn Plus ThB and No-Burn ThB Spray Seal are water-based, liquid applied, intumescent coatings. When exposed to elevated temperatures and flame, they expand and form a protective char layer.

2.2 The products are packaged in either 5-gallon (19 liter) pails or 55-gallon (208 liter) drums.

2.3 *Shelf Life*

2.3.1 No-Burn Plus ThB and No-Burn ThB Spray Seal have a shelf life of one year when stored in unopened containers between 40° F (4.4° C) and 90° F (32.2° C).

2.4 No-Burn Plus ThB and No-Burn ThB Spray Seal must be prepared with a power mixer (800-1,200 rpm), or equivalent, for a minimum of five minutes per container prior to application.

2.5 As needed, review material properties for design in **Section 6** and the regulatory evaluation in **Section 8**.

3 Definitions[2]

3.1 New Materials[3] are defined as building materials, equipment, appliances, systems, or methods of construction, not provided for by prescriptive and/or legislatively adopted regulations, known as alternative materials.[4] The design strength and permissible stresses shall be established by tests[5] and/or engineering analysis.[6]

3.2 Duly authenticated reports[7] and research reports[8] are test reports and related engineering evaluations that are written by an approved agency[9] and/or an approved source.[10]

3.2.1 This report utilizes intellectual property and/or trade secrets to create public domain material properties for commercial end-use.

3.2.1.1 This report protects confidential Intellectual Property and trade secrets under the regulation, 18.US.Code.90, also known as Defend Trade Secrets Act of 2016 (DTSA).[11]

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3.3 An approved agency is *"approved"* when it is ANAB ISO/IEC 17065 accredited. DrJ Engineering, LLC (DrJ) is accredited and listed in the ANAB directory.

3.4 An approved source is *"approved"* when a professional engineer (i.e., Registered Design Professional, hereinafter RDP) is properly licensed to transact engineering commerce. The regulatory authority governing approved sources is the state legislature via its professional engineering regulations.[12]

3.5 Testing and/or inspections conducted for this duly authenticated report were performed by an ISO/IEC 17025 accredited testing laboratory, an ISO/IEC 17020 accredited inspection body, and/or a licensed RDP.

3.5.1 The Center for Building Innovation (CBI) is ANAB[13] ISO/IEC 17025 and ISO/IEC 17020 accredited.

3.6 The regulatory authority shall enforce[14] the specific provisions of each legislatively adopted regulation. If there is a non-conformance, the specific regulatory section and language of the non-conformance shall be provided in writing[15] stating the nonconformance and the path to its cure.

3.7 The regulatory authority shall accept duly authenticated reports from an approved agency and/or an approved source with respect to the quality and manner of use of new materials or assemblies as provided for in regulations regarding the use of alternative materials, designs, or methods of construction.[16]

3.8 ANAB is an International Accreditation Forum (IAF) Multilateral Recognition Arrangement (MLA) signatory. Therefore, recognition of certificates and validation statements issued by conformity assessment bodies accredited by all other signatories of the IAF MLA with the appropriate scope shall be approved.[17] Thus, all ANAB ISO/IEC 17065 duly authenticated reports are approval equivalent,[18] and can be used in any country that is an MLA signatory found at this link: https://iaf.nu/en/recognised-abs/

3.9 Approval equity is a fundamental commercial and legal principle.[19]

4 Applicable Local, State, and Federal Approvals; Standards; Regulations[20]

4.1 *Local, State, and Federal*

4.1.1 Approved in all local jurisdictions pursuant to ISO/IEC 17065 duly authenticated report use, which includes, but is not limited to, the following featured local jurisdictions: Austin, Baltimore, Broward County, Chicago, Clark County, Dade County, Dallas, Detroit, Denver, DuPage County, Fort Worth, Houston, Kansas City, King County, Knoxville, Las Vegas, Los Angeles City, Los Angeles County, Miami, Nashville, New York City, Omaha, Philadelphia, Phoenix, Portland, San Antonio, San Diego, San Jose, San Francisco, Seattle, Sioux Falls, South Holland, St. Louis County, Texas Department of Insurance, and Wichita.[21]

4.1.2 Approved in all state jurisdictions pursuant to ISO/IEC 17065 duly authenticated report use, which includes, but is not limited to, the following featured states: California, Florida, New Jersey, Oregon, New York, Texas, Washington, and Wisconsin.[22]

4.1.3 Approved by the Code of Federal Regulations Manufactured Home Construction: Pursuant to Title 24, Subtitle B, Chapter XX, Part 3282.14[23] and Part 3280[24] pursuant to the use of ISO/IEC 17065 duly authenticated reports.

4.1.4 Approved means complying with the requirements of local, state, or federal legislation.

4.2 *Regulations*

4.2.1 *IBC – 18, 21, 24: International Building Code®*

4.2.2 *IRC – 18, 21, 24: International Residential Code®*

4.2.3 IEBC – 18, 21, 24: International Existing Building Code®

4.2.4 *IMC – 18, 21, 24: International Mechanical Code®*

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4.3 *Standards*

4.3.1 *ASTM E96A: Standard Test Methods for Gravimetric Determination of Water Vapor Transmission Rate of Materials*

4.3.2 *ASTM E331: Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference*

4.3.3 *ASTM G154-16: Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Materials*

4.3.4 *NFPA 285: Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Wall Assemblies Containing Combustible Components*

4.3.5 *NFPA 286: Standard Methods of Fire Test for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth*

4.3.6 *UL 1715: Fire Test of Interior Finish Material*

5 Listed[25]

5.1 Equipment, materials, products, or services included in a List published by a nationally recognized testing laboratory (e.g., CBI), an approved agency (e.g., CBI and DrJ), and/or an approved source (e.g., DrJ), or other organization(s) concerned with product evaluation (e.g., DrJ), that maintains periodic inspection (e.g., CBI) of production of listed equipment or materials, and whose listing states either that the equipment or material meets nationally recognized standards or has been tested and found suitable for use in a specified manner.

6 Tabulated Properties Generated from Nationally Recognized Standards

6.1 *Thermal Barrier Assemblies*

6.1.1 No-Burn Plus ThB and No-Burn ThB Spray Seal are 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 IBC Section 2603.9 and IRC Section R303.6.[26]

6.1.2 No-Burn Plus ThB and No-Burn ThB Spray Seal meet the criteria for use as a wall and ceiling finish in accordance with IBC Section 803.1, IBC Section 803.4, IRC Section R302.9, and IRC Section R302.10.1.

6.1.3 No-Burn Plus ThB and No-Burn ThB Spray Seal meet the criteria for use as an interior finish or interior trim in plenums in accordance with IBC Section 2603.7 and IMC Section 602.3.7.

6.1.4 The approved Thermal Barrier Assemblies for No-Burn Plus ThB are as listed in **Table 1**.

6.1.5 The approved Thermal Barrier with Class II Vapor Retarder Assemblies for No-Burn ThB Spray Seal are as listed in **Table 3**.

Table 1. Thermal Barrier Assemblies

Substrate	No-Burn Product[2] Name	Maximum Thickness of Walls and Vertical Surfaces (in)	Maximum Thickness of Ceilings, Underside of Roof Sheathing/ Rafters and Floors (in)	Application of No-Burn Coating				Evaluation Report[1]
				Minimum Installed Thickness (mils)		Theoretic Application Rate		
				Wet Film	Dry Film	Sq. Ft per Gallon	Gallons per 100 Sq. Ft	
Accufoam® OC Open Cell Spray Foam	Plus ThB	10	16	14	9	115	0.87	ER-699
Accufoam® AF_1 Open Cell Spray Foam	Plus ThB	10	16	14	9	115	0.87	ER-842

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Table 1. Thermal Barrier Assemblies

Substrate	No-Burn Product[2] Name	Maximum Thickness of Walls and Vertical Surfaces (in)	Maximum Thickness of Ceilings, Underside of Roof Sheathing/ Rafters and Floors (in)	Application of No-Burn Coating				Evaluation Report[1]
				Minimum Installed Thickness (mils)		Theoretic Application Rate		
				Wet Film	Dry Film	Sq. Ft per Gallon	Gallons per 100 Sq. Ft	
Accufoam® CC Closed Cell Spray Foam	Plus ThB	7.5	9.5	14	9	115	0.87	ER-699
Accufoam® CC-HFO Closed Cell Foam	Plus ThB	7.5	9.5	14	9	115	0.87	ER-833
AMBIT AMBI-SEAL 5.0 Open Cell Spray Foam	Plus ThB	9	16	14	9	115	0.87	CCRR-0393
AMBIT Ambi-Tite 204 (HFO) Closed Cell Spray Foam	Plus ThB	8	12	14	9	115	0.87	ESR-4427
Alpha Polymers AP 100 (OC) Open Cell Foam	Plus ThB	9	16	14	9	115	0.87	CCRR-0483
Alpha Polymers AP 210 HFO (CC) Closed Cell Spray Foam	Plus ThB	8	12	14	9	115	0.87	ESR-5242
BASF ENERTITE® G Open Cell Spray Foam	Plus ThB	8	16	14	9	115	0.87	CCRR-1032
BASF ENERTITE® X Open Cell Spray Foam	Plus ThB	8	16	14	9	115	0.87	CCRR-1032
BASF ENERTITE® Max Open Cell Spray Foam	Plus ThB	8	16	14	9	115	0.87	CCRR-1032
BASF WALLTITE® MAX Closed Cell Spray Foam	Plus ThB	6	8	14	9	115	0.87	CCRR-0374
BASF WALLTITE® ONE Closed Cell Spray Foam	Plus ThB	6	8	14	9	115	0.87	CCRR-0374
BASF WALLTITE® RSB Closed Cell Spray Foam	Plus ThB	6	8	14	9	115	0.87	CCRR-0374
Carlisle® SealTite™ Pro Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	ER-624
Carlisle® Foamsulate™ 50 HY Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	ER-540
Carlisle® SealTite™ PRO XTR Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	ER-906
Carlisle® SealTite™ Pro No Mix Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	ER-616
Carlisle® Foamsulate™ 50 Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	ER-351
Carlisle® SealTite™ Pro High Yield Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	ER-623
Carlisle® Foamsulate™ HFO 2.0 Closed Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	ER-841

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Table 1. Thermal Barrier Assemblies

Substrate	No-Burn Product[2] Name	Maximum Thickness of Walls and Vertical Surfaces (in)	Maximum Thickness of Ceilings, Underside of Roof Sheathing/ Rafters and Floors (in)	Application of No-Burn Coating				Evaluation Report[1]
				Minimum Installed Thickness (mils)		Theoretic Application Rate		
				Wet Film	Dry Film	Sq. Ft per Gallon	Gallons per 100 Sq. Ft	
Central Urethanes X-Press Seal 200 Closed Cell Foam	Plus ThB	8	10	14	9	115	0.87	ER-834
Creative Polymer Solutions Accufoam® OC Open Cell Foam	Plus ThB	10	16	14	9	115	0.87	ER-699
Creative Polymer Solutions Accufoam® AF1 Open Cell Spray Foam	Plus ThB	10	16	14	9	115	0.87	ER-842
Creative Polymer Solutions Accufoam® CC Closed Cell Foam	Plus ThB	7.5	9.5	14	9	115	0.87	ER-699
Creative Polymer Solutions Accufoam® CC-HFO Closed Cell Foam	Plus ThB	7.5	9.5	14	9	115	0.87	ER-833
Dynamo 50 NM Open Cell Spray Foam	Plus ThB	10	14	16	10	100	1.00	ER-930
Dynamo 500 Open Cell Spray Foam	Plus ThB	10	16	14	9	115	0.87	CCRR-0491
Dynamo ECO2000 HFO Closed Cell Spray Foam	Plus ThB	8	10	14	9	115	0.87	CCRR-0491
Elastochem® Insulthane® 450 NM Open Cell Spray Foam	Plus ThB	10	16	14	9	115	0.87	CCRR-0396
Elastochem® Insulthane® 200 Evolution Closed Cell Spray Foam	Plus ThB	8	10	14	9	115	0.87	CCRR-0396
Enverge/Gaco OnePass® HFO F1860 Closed Cell Spray Foam	Plus ThB	6	9.5	14	9	115	0.87	ER-859
Enverge/SES EasySeal 0.5® Open Cell Spray Foam	Plus ThB	10	16	14	9	115	0.87	ER-492
Enverge/SES Nexseal® 2.0 Closed Cell Spray Foam	Plus ThB	6	9.5	14	9	115	0.87	ER-374
Enverge/SES Nexseal® 2.0 LE Closed Cell Spray Foam	Plus ThB	6	9.5	14	9	115	0.87	ER-374
Everest Evercell 2.0 (245fa) Closed Cell Spray Foam	Plus ThB	6	6	14	9	115	0.87	PD3
Everest Opticell 2.0 (HFO) Closed Cell Spray Foam	Plus ThB	6	6	14	9	115	0.87	PD3
Foam Supplies Genfoam™ Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	CCRR-0389
Foam Supplies GenX™ Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	CCRR-0390
General Coatings Ultra-Thane 050 Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	CCRR-0358

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Substrate	No-Burn Product[2] Name	Maximum Thickness of Walls and Vertical Surfaces (in)	Maximum Thickness of Ceilings, Underside of Roof Sheathing/ Rafters and Floors (in)	Application of No-Burn Coating				Evaluation Report[1]
				Minimum Installed Thickness (mils)		Theoretic Application Rate		
				Wet Film	Dry Film	Sq. Ft per Gallon	Gallons per 100 Sq. Ft	
General Coatings Ultra-Thane 050 Max Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	CCRR-0358
General Coatings Ultra-Thane 050 Max Pro Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	CCRR-0358
General Coatings Ultra-Thane 050X Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	CCRR-0362
General Coatings Ultra-Thane 205 HFO Closed Cell Spray Foam	Plus ThB	8	12	14	9	115	0.87	CCRR-0375
General Coatings Ultra-Thane 205 HFO High-Lift Closed Cell Spray Foam	Plus ThB	8	12	14	9	115	0.87	CCRR-0375
General Coatings Ultra-Thane 205 HFO MAX Closed Cell Spray Foam	Plus ThB	8	12	14	9	115	0.87	CCRR-0375
General Coatings Ultra-Thane 205 HFO Premium Closed Cell Spray Foam	Plus ThB	8	12	14	9	115	0.87	CCRR-0375
Genyk Elite 2.0 Closed Cell Spray Foam	Plus ThB	6	10	14	9	115	0.87	ESR-5150
Green Valley Products GVP500 NM Open Cell Spray Foam	Plus ThB	10	16	16	10	100	1.00	ER-910
Green Valley Products GVP 2.0 HFO Closed Cell Spray Foam	Plus ThB	7	10	16	10	100	1.00	ER-917
Huntsman Premium Icynene® OC No-Mix Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	ESR-5499
Huntsman Premium Icynene® Classic 45 Open Cell Spray Foam	Plus ThB	6	16	16	11	100	1.00	ESR-5498
Huntsman Premium Icynene® Ultra 50 Open Cell Spray Foam	Plus ThB	8	16	16	11	100	1.00	ESR-5497
Huntsman Premium Icynene® Classic 75 Open Cell Spray Foam	Plus ThB	6	16	16	11	100	1.00	ESR-5495
Huntsman Premium Icynene® High-R 80 Open Cell Spray Foam	Plus ThB	8	16	16	11	100	1.00	ESR-5494
Huntsman Premium Icynene® HFO 200 Closed Cell Spray Foam	Plus ThB	6.5	9.5	16	11	100	1.00	ER-926
Huntsman Premium Icynene® HFO Max Closed Cell Spray Foam	Plus ThB	6.5	9.5	16	11	100	1.00	ESR-5496
Huntsman (Demilec) SEALECTION 500 Open Cell Spray Foam (Legacy)	Plus ThB	8	16	16	11	100	1.00	CCRR-1063

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Substrate	No-Burn Product[2] Name	Maximum Thickness of Walls and Vertical Surfaces (in)	Maximum Thickness of Ceilings, Underside of Roof Sheathing/ Rafters and Floors (in)	Application of No-Burn Coating				Evaluation Report[1]
				Minimum Installed Thickness (mils)		Theoretic Application Rate		
				Wet Film	Dry Film	Sq. Ft per Gallon	Gallons per 100 Sq. Ft	
Huntsman (Demilec) Agribalance® Open Cell Spray Foam (Legacy)	Plus ThB	8	16	16	11	100	1.00	ESR-2600
Huntsman (Demilec) Heatlok® HFO High Lift Closed Cell Spray Foam	Plus ThB	6.5	9.5	16	11	100	1.00	ESR-4073
Huntsman (Demilec) Heatlok® HFO Pro Closed Cell Spray Foam	Plus ThB	6.5	9.5	16	11	100	1.00	ER-565
Huntsman (Demilec) Heatlok® HFO EZ Closed Cell Spray Foam	Plus ThB	6.5	9.5	16	11	100	1.00	ER-871
Huntsman Icynene® Classic Open Cell Spray Foam	Plus ThB	6	16	16	11	100	1.00	ESR-1826
Huntsman Icynene® Classic Ultra Open Cell Spray Foam	Plus ThB	6	16	16	11	100	1.00	ESR-1826
Huntsman Icynene® Classic Ultra Select Open Cell Spray Foam	Plus ThB	6	16	16	11	100	1.00	ESR-1826
Huntsman Icynene® Classic Plus Open Cell Spray Foam	Plus ThB	6	16	16	11	100	1.00	ESR-1826
Huntsman Icynene® No Mix Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	CCRR-1123
Huntsman (Lapolla) Foam-Lok™ FL 500 Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	CCRR-1091
Huntsman (Lapolla) Foam-Lok™ FL 750 Open Cell Spray Foam	Plus ThB	6	16	16	11	100	1.00	ESR-4322
Innovative Polymer Systems IPS 2000 HFO Closed Cell Spray Foam	Plus ThB	8	10	14	9	115	0.87	CCRR-0510
Johns Manville JM Corbond® III Closed Cell Spray Foam	Plus ThB	6	8	14	9	115	0.87	ER-146
Johns Manville JM No Mix Open Cell Spray Foam	Plus ThB	10	14	16	10	100	1.0	ER-971
Johns Manville JM IV HFO Closed Cell Spray Foam	Plus ThB	7	10	16	10	100	1.0	ER-980
Natural Polymers™ Natural-Therm 0.4 Open Cell Spray Foam	Plus ThB	8	12	16	11	100	1.00	ER-589
Natural Polymers™ Ultra-Pure® Open Cell Spray Foam	Plus ThB	8	12	16	11	100	1.00	ER-801
Natural Polymers™ Natural-Therm® Zero Closed Cell Spray Foam	Plus ThB	12	16	14	9	115	0.87	ER-527

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				Minimum Installed Thickness (mils)		Theoretic Application Rate		
				Wet Film	Dry Film	Sq. Ft per Gallon	Gallons per 100 Sq. Ft	
Natural Polymers™ Natural-Therm® 2.0 Closed Cell Spray Foam	Plus ThB	12	16	14	9	115	0.87	ER-336
Natural Polymers™ Natural-Therm® 2.0 HFO Closed Cell Spray Foam	Plus ThB	12	16	14	9	115	0.87	ER-714
Natural Polymers™ Ultra-Pure® Closed Cell Spray Foam	Plus ThB	12	16	14	9	115	0.87	ER-800
NCFI InsulStar® Light 12-008 Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	CCRR-0323
NCFI InsulStar® Light 12-075 Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	CCRR-0323
NCFI InsulBloc® SmartSPF Closed Cell Spray Foam	Plus ThB	6.5	9.5	14	9	115	0.87	ER-667
NSF Polymers R-Max Closed Cell Spray Foam	Plus ThB	7.5	9.5	14	9	115	0.87	ER-868
Nu-Wool® Nu-Seal 0.5 Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	CCRR-0490
Nu-Wool® Nu-Seal 2.0 HFO Closed Cell Spray Foam	Plus ThB	8	12	14	9	115	0.87	CCRR-0490
Nu-Wool® Nu-Seal Plus Closed Cell Spray Foam	Plus ThB	8	12	14	9	115	0.87	CCRR-0490
PolyCon™ PC 450 Open Cell Spray Foam	Plus ThB	10	16	14	9	115	0.87	ER-965
PolyCon™ PC 2000 Closed Cell Spray Foam	Plus ThB	7	10	14	9	115	0.87	ER-964
PSI Staycell® 505 Open Cell Spray Foam	Plus ThB	8	12	14	9	115	0.87	QAI B1020-1
PSI Staycell® 504 Closed Cell Spray Foam	Plus ThB	6	8	14	9	115	0.87	QAI B1020-1
Quadrant Performance EnviroSeal® OC Platinum Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	ER-856
Quadrant Performance EnviroSeal® HFO Closed Cell Spray Foam	Plus ThB	8	10	14	9	115	0.87	ER-854
Quadrant Performance EnviroSeal® CC Pro Closed Cell Spray Foam	Plus ThB	8	10	14	9	115	0.87	ER-942
Quadrant Performance EnviroSeal® CC Platinum Closed Cell Spray Foam	Plus ThB	8	10	14	9	115	0.87	ER-942
Spray Foam Genie SFG 1.7 Closed Cell Spray Foam	Plus ThB	6.5	9.5	14	9	115	0.87	ER-924

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				Minimum Installed Thickness (mils)		Theoretic Application Rate		
				Wet Film	Dry Film	Sq. Ft per Gallon	Gallons per 100 Sq. Ft	
Spray Foam Genie SFG 2.0 Closed Cell Spray Foam	Plus ThB	6.5	9.5	14	9	115	0.87	ER-924
SWD Quik-Shield® 108 Open Cell Spray Foam	Plus ThB	8	16	14	9	115	0.87	CCRR-1051
SWD Quik-Shield® GOBLIN Closed Cell Spray Foam	Plus ThB	5	8	14	9	115	0.87	CCRR-0507
SWD Quik-Shield® 118 Closed Cell Spray Foam	Plus ThB	5	8	14	9	115	0.87	CCRR-1093
SWD Quik-Shield® YETI Closed Cell Spray Foam	Plus ThB	5	8	14	9	115	0.87	CCRR-0478
ThermoSeal™ 5G Closed Cell Spray Foam	Plus ThB	7	10	14	9	115	0.87	ER-698
ThermoSeal™ TS HFO Closed Cell Spray Foam	Plus ThB	7	10	14	9	115	0.87	ER-603
UPC 400™ Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	CCRR-0610
UPC 500™ Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	CCRR-0358
UPC 500™ Max Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	CCRR-0358
UPC 500™ Max Pro Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	CCRR-0358
UPC 500™ OCX Open Cell Spray Foam	Plus ThB	8.5	16	14	9	115	0.87	CCRR-0362
UPC 2.0™ HFO Closed Cell Spray Foam	Plus ThB	8	12	14	9	115	0.87	CCRR-0375
UPC 2.0™ HFO High Lift Closed Cell Spray Foam	Plus ThB	8	12	14	9	115	0.87	CCRR-0375
Xcelus XLS 500 NM Open Cell Spray Foam	Plus ThB	8	16	14	9	115	0.87	CCRR-0516
Xcelus XLS 1800 Closed Cell Spray Foam	Plus ThB	6	8	14	9	115	0.87	CCRR-0516
Xcelus XLS 200 Closed Cell Spray Foam	Plus ThB	8	10	14	9	115	0.87	CCRR-0397
Xcelus XLS 2000 Closed Cell Spray Foam	Plus ThB	8	10	14	9	115	0.87	CCRR-0397

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

1. Use of No-Burn Plus ThB 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 referenced evaluation report, including Evaluation Reports (ER) from IAPMO Uniform Evaluation Service, Code Compliance Research Reports (CCRR) from Intertek, and Evaluation Service Reports (ESR) from ICC-ES.
2. No-Burn Plus ThB or Plus may be overcoated or undercoated with latex paint with a pH of 7 to 9.
3. PD = Proprietary Data

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6.2 *Ignition Barrier Assemblies*

6.2.1 No-Burn Plus ThB and No-Burn ThB Spray Seal may be used to protect SPF in attics and crawl spaces to allow the SPF to be installed without a prescriptive ignition barrier in accordance with IBC Section 2603.4.1.6, IBC Section 2603.9, IRC Section R303.5.3,[27] and IRC Section R303.5.4.[28]

6.2.2 No-Burn Plus ThB and No-Burn ThB Spray Seal meet the criteria for use as wall and ceiling finishes in accordance with IBC Section 803.1, IBC Section 803.4, IRC Section R302.9, and IRC Section R302.10.1.

6.2.3 The approved assemblies for No-Burn Plus ThB and No-Burn Plus XD are as listed in **Table 2**.

6.2.4 The assemblies listed in **Table 2** may be installed in an attic or crawl space without a prescriptive ignition barrier when all of the following are met:

6.2.4.1 Entry into the attic or crawl space is only for the maintenance, repair, or servicing of the building or equipment. No storage is permitted.

6.2.4.2 There are no interconnected attic or crawl space areas.

6.2.4.3 Air is not circulated to other parts of the building.

6.2.4.4 The foam plastic insulation does not exceed the maximum density and thickness shown in **Table 2**.

6.2.4.5 Combustion air is provided in accordance with the IMC Section 701.

6.2.4.6 When required, attic ventilation is provided in accordance with IBC Section 1202.2 or IRC Section R806, and crawl space ventilation is provided in accordance with IBC Section 1202.4.

6.2.4.6.1 *Exception:* Unvented attics and crawl spaces meeting the requirements of IBC Section 1202.3, IRC Section R408.3, or IRC Section R806.5.

6.2.4.7 The approved Ignition Barrier with Class II Vapor Retarder Assemblies for No-Burn ThB Spray Seal are as listed in **Table 3**.

Table 2. Ignition Barrier Assemblies

Substrate	No-Burn Product[1] Name	Maximum Thickness of Walls and Vertical Surfaces (in)	Maximum Thickness of Ceilings, Underside of Roof Sheathing/ Rafters and Floors (in)	Application of No-Burn Coating			
				Minimum Installed Thickness (mils)		Theoretic Application Rate	
				Wet Film	Dry Film	Sq. Ft Per Gallon	Gallons per 100 Sq. Ft
AMBIT AMBI-SEAL 5.0 Open Cell Spray Foam	Plus ThB	9	16	6	4	267	0.37
BASF ENERTITE G Open Cell Spray Foam	Plus ThB	11 1/4	16	6	4	267	0.37
BASF ENERTITE Max Open Cell Spray Foam	Plus ThB	11 1/4	16	6	4	267	0.37
BASF WALLTITE RSB Closed Cell Spray Foam	Plus ThB	8	8	6	4	267	0.37
BASF WALLTITE Max Closed Cell Spray Foam	Plus ThB	8	8	6	4	267	0.37
BASF WALLTITE ONE Closed Cell Spray Foam	Plus ThB	8	8	6	4	267	0.37
Carlisle SealTite Pro Open Cell Spray Foam	Plus ThB	11 1/4	16	6	4	267	0.37
Carlisle Foamsulate 50 HY Open Cell Spray Foam	Plus ThB	11 1/4	16	6	4	267	0.37

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Table 2. Ignition Barrier Assemblies

Substrate	No-Burn Product[1] Name	Maximum Thickness of Walls and Vertical Surfaces (in)	Maximum Thickness of Ceilings, Underside of Roof Sheathing/ Rafters and Floors (in)	Application of No-Burn Coating			
				Minimum Installed Thickness (mils)		Theoretic Application Rate	
				Wet Film	Dry Film	Sq. Ft Per Gallon	Gallons per 100 Sq. Ft
Carlisle SealTite Pro XTR Open Cell Spray Foam	Plus ThB	11 1/4	16	6	4	267	0.37
Carlisle SealTite Pro No Mix Open Cell Spray Foam	Plus ThB	11 1/4	16	6	4	267	0.37
Carlisle Foamsulate 50 Open Cell Spray Foam	Plus ThB	11 1/4	16	6	4	267	0.37
Carlisle SealTite Pro High Yield Open Cell Spray Foam	Plus ThB	11 1/4	16	6	4	267	0.37
Central Urethanes X-Press Seal 50 Open Cell Spray Foam	Plus ThB	10	16	6	4	267	0.37
Creative Polymer Accufoam Open Cell Spray Foam	Plus ThB	8	16	6	4	267	0.37
Creative Polymer Solutions Accufoam AF1 Open Cell Spray Foam	Plus ThB	8	16	6	4	267	0.37
DAP Touch 'n Seal 2.2 PCF Closed Cell Spray Foam	Plus ThB	2	2	8	5	200	0.50
Dynamo 50 NM Open Cell Spray Foam	Plus ThB	10	16	6	4	267	0.37
Enverge/SES EasySeal 0.5 Spray Foam Insulation	Plus ThB	12	18	5	3	320	0.31
Enverge/SES EasySeal ULD Spray Foam Insulation	Plus ThB	10	16	6	4	267	0.37
Franklin Titebond Weathermaster Superfoam Closed Cell Spray Foam	Plus ThB	2	2	10	6	160	0.63
General Coatings Ultra-Thane 050 Open Cell Spray Foam	Plus ThB	8	12	6	4	267	0.37
General Coatings Ultra-Thane 050 Max Open Cell Spray Foam	Plus ThB	8	12	6	4	267	0.37
General Coatings Ultra-Thane 050 Max Pro Open Cell Spray Foam	Plus ThB	8	12	6	4	267	0.37
Genyk Elite 50 Open Cell Spray Foam	Plus ThB	10	16	6	4	267	0.37
Green Valley Products GVP500 NM Open Cell Spray Foam	Plus ThB	10	16	6	4	267	0.37
Huntsman Premium Icynene Ultra 50 Open Cell Spray Foam	Plus ThB	9 1/4	11 1/4	6	4	267	0.37
Huntsman Premium Icynene Classic 75 Open Cell Spray Foam	Plus ThB	8	16	6	4	267	0.37

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Table 2. Ignition Barrier Assemblies

Substrate	No-Burn Product[1] Name	Maximum Thickness of Walls and Vertical Surfaces (in)	Maximum Thickness of Ceilings, Underside of Roof Sheathing/ Rafters and Floors (in)	Application of No-Burn Coating			
				Minimum Installed Thickness (mils)		Theoretic Application Rate	
				Wet Film	Dry Film	Sq. Ft Per Gallon	Gallons per 100 Sq. Ft
Huntsman Premium Icynene High-R 80 Open Cell Spray Foam	Plus ThB	9 1/2	11 1/2	10	6	160	0.63
Huntsman (Demilec) SEALECTION 500 Open Cell Spray Foam	Plus ThB	9 1/4	11 1/4	6	4	267	0.37
Huntsman (Demilec) Agribalance Open Cell Spray Foam	Plus ThB	9 1/2	11 1/2	10	6	160	0.63
Huntsman (Icynene) Classic Open Cell Spray Foam	Plus ThB	5 1/2	16	6	4	267	0.37
Huntsman (Icynene) Classic Ultra Open Cell Spray Foam	Plus ThB	5 1/2	16	6	4	267	0.37
Huntsman (Icynene) Classic Ultra Select Open Cell Spray Foam	Plus ThB	5 1/2	16	6	4	267	0.37
Huntsman (Icynene) Classic Plus Open Cell Spray Foam	Plus ThB	8	16	6	4	267	0.37
Huntsman (Icynene) ProSeal Eco Closed Cell Spray Foam	Plus ThB	7 1/4	9 1/4	5	3	320	0.31
Huntsman (Lapolla) Foam-Lok FL 450 Open Cell Spray Foam	Plus ThB	5 1/2	16	6	4	267	0.37
Huntsman (Lapolla) Foam-Lok FL 750 Open Cell Spray Foam	Plus ThB	8	16	6	4	267	0.37
ICP HandiFoam HVLP LD Open Cell Spray Foam	Plus ThB	11 1/4	16	6	4	267	0.37
ICP HandiFoam E-84 Class 1(A) Closed Cell Spray Foam	Plus ThB	2	2	10	6	160	0.63
Johns Manville JM Corbond NM Open Cell Spray Foam	Plus ThB	8	12	6	4	267	0.37
Natural Polymers Natural-Therm 450 Open Cell Spray Foam	Plus ThB	10	14	6	4	267	0.37
PolyCon PC 450 Open Cell Spray Foam	Plus ThB	10	16	6	4	267	0.37
PolyCon PC 500 Closed Cell Spray Foam	Plus ThB	10	16	6	4	267	0.37
PolyCon PC 2000 Closed Cell Spray Foam	Plus ThB	7	10	6	4	267	0.37
Quadrant Performance EnviroSeal OC Platinum Open Cell Spray Foam	Plus ThB	11 1/4	16	6	4	267	0.37
SWD Quick Shield 106 Open Cell Spray Foam	Plus ThB	8	16	6	4	267	0.37

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Table 2. Ignition Barrier Assemblies

Substrate	No-Burn Product[1] Name	Maximum Thickness of Walls and Vertical Surfaces (in)	Maximum Thickness of Ceilings, Underside of Roof Sheathing/ Rafters and Floors (in)	Application of No-Burn Coating			
				Minimum Installed Thickness (mils)		Theoretic Application Rate	
				Wet Film	Dry Film	Sq. Ft Per Gallon	Gallons per 100 Sq. Ft
ThermoSeal TS 360 Open Cell Spray Foam	Plus ThB	10	16	4	3	401	0.25
ThermoSeal TS 500 Open Cell Spray Foam	Plus ThB	10	16	4	3	401	0.25
ThermoSeal TS 800 Open Cell Spray Foam	Plus ThB	10	16	4	3	401	0.25
ThermoSeal OCX Open Cell Spray Foam	Plus ThB	9 1/4	11 1/4	6	4	267	0.37
Tiger Foam Insulation E-84 Fire Rated SPF Class 1 Spray Foam	Plus ThB	3 1/2	3 1/2	10	6	160	0.63
UPC 400 Open Cell Spray Foam	Plus ThB	8	12	6	4	267	0.37
UPC 500 Open Cell Spray Foam	Plus ThB	8	12	6	4	267	0.37
UPC 500 Classic Open Cell Spray Foam	Plus ThB	8	12	6	4	267	0.37
UPC 500 Max Open Cell Spray Foam	Plus ThB	8	12	6	4	267	0.37
UPC 500 Max Pro Open Cell Spray Foam	Plus ThB	8	12	6	4	267	0.37
Xcelus XLS 500 NM Open Cell Spray Foam	Plus ThB	11 1/4	16	6	4	267	0.37
Xcelus XLS 1800 Closed Cell Spray Foam	Plus ThB	8	8	6	4	267	0.37

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

1. No-Burn Plus XD or No-Burn Plus ThB may be overcoated or undercoated with latex paint with a pH of 7 to 9.

6.3 *Class II Vapor Retarder, Thermal Barrier Assemblies, or Ignition Barrier Assemblies*

6.3.1 No-Burn ThB Spray Seal is used as a Thermal Barrier, Ignition Barrier, and Class II Vapor Retarder over spray polyurethane foams listed in **Table 1** and **Table 2**, and in accordance with **Table 3**.

6.3.2 No-Burn ThB Spray Seal is used to protect SPF insulation to allow the SPF to be installed without a prescriptive 15-minute Thermal Barrier in accordance with **Section 6.1.1**.

6.3.3 No-Burn ThB Spray Seal is used to protect SPF in attics and crawl spaces to allow the SPF to be installed without a prescriptive Ignition Barrier in accordance with **Section 6.2.1**.

6.3.4 No-Burn ThB Spray Seal showed no deleterious effects such as discoloration, cracking, crazing, or delamination when exposed to UV, irradiance, and condensation, or accelerated weathering and durability.

6.3.5 The approved Class II Vapor Retarder, Thermal Barrier Assemblies, or Ignition Barrier Assemblies are in accordance with **Table 3**.

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Table 3. ThB Spray Seal use as a Class II Vapor Retarder, Thermal Barrier, or Ignition Barrier

Substrate	No-Burn Product[2] Name	Application of No-Burn Coating			
		Minimum Installed Thickness (mils)		Theoretic Application Rate	
		Wet Film	Dry Film	Sq. Ft per Gallon	Gallons per 100 Sq. Ft
Spray Polyurethane Foams listed in **Table 1** for Thermal Barrier Assemblies	ThB Spray Seal	16	11	100	1.00
Spray Polyurethane Foams listed in **Table 2** for Ignition Barrier Assemblies	ThB Spray Seal	16	11	100	1.00

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

1. No-Burn ThB Spray Seal may be overcoated with latex paint with a pH of 7 to 9.

6.4 *Vertical and Lateral Fire Propagation*

6.4.1 No-Burn Plus ThB and No-Burn ThB Spray Seal were evaluated to assess performance of vertical and lateral fire propagation in accordance with NFPA 285 and IBC Section 2603.5.5.

6.4.2 Engineering analysis has been conducted to assess substitution of other products within the approved wall assemblies.

6.4.3 The wall assemblies listed in **Table 4**, **Table 5**, **Table 6**, and **Table 7** are approved for use in buildings of Type I-IV construction.

Table 4. Approved NFPA 285 Exterior Wall Assemblies with BASF Walltite US or SprayTite Comfort in Wall Cavity and on Exterior of Wall Assembly

Wall Component	Materials
Base Wall System Use item 1, 2, 3, or 4	1. Cast Concrete Walls 2. CMU Concrete Walls 3. 20-gauge (minimum) 3 5/8" (minimum) steel studs or 6" deep steel studs with 5/8" Type X gypsum wallboard interior with long dimension perpendicular to the steel studs 4. FRT wood studs spaced 24" o.c. (maximum) with 5/8" Type X gypsum wallboard interior
Fire-Stopping in Stud Cavity at Floor Lines	1. 4" (minimum), 4-pcf (minimum) mineral fiber (mineral wool) installed in each framing cavity at each floor line.
Cavity Insulation Use any item 1 - 7 *Note:* For Cavity Insulations 5, 6, and 7, shall use fire stopping at floor lines and 5/8" exterior gypsum sheathing except Item 7 may use 1/2" exterior gypsum sheathing. SPF shall be applied to the interior face of exterior gypsum sheathing of base wall 3 or 4 as the substrate and shall cover the cavity's width and the inside of the wall stud-framing flange.	1. None 2. Any insulation determined to be noncombustible per ASTM E136 for Base Wall 3 or 4 3. Any Mineral Fiber (Board type Class A ASTM E84 faced or unfaced) for Base Wall 3 or 4 4. Any Fiberglass Batt Insulation (Class A Faced or Unfaced) for Base Wall 3 or 4 5. BASF WALLTITE US and SPRAYTITE COMFORT (3 5/8" maximum thickness)– cavity may be partially or fully filled, leaving a maximum 4" air cavity between the polyurethane foam insulation and the 5/8" Type X Gypsum Wallboard for Base Wall 3 or 4. Use minimum 5/8" exterior sheathing for the base wall 6. BASF Enertite G - up to full stud cavity depth thickness for Base Wall 3 or 4 7. BASF WallTite LWP up to 5 1/2" thick with up to 6" deep studs

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Table 4. Approved NFPA 285 Exterior Wall Assemblies with BASF Walltite US or SprayTite Comfort in Wall Cavity and on Exterior of Wall Assembly

Wall Component	Materials
Exterior Sheathing	1. 1/2" thick fiberglass mat, exterior gypsum board with long dimension perpendicular to the Base Wall studs.
WRB Applied to Sheathing Use item 1 or 2	1. None 2. BASF MasterSeal AWB 660 or equivalent WRB with a lower heat release rate when tested to ASTM E1354
Z Girts Use item 1, 2, or 3 for claddings requiring girts	1. Vertical or Horizontal Metallic Z 2. Horizontal Smart Ci-GreenGirt 3. Horizontal Armatherm FRR Z Girt *Note:* Girt spacing shall be able to comply with the required wind load per the manufacturer instructions.
WRB over Exterior Insulation	1. None
Exterior Insulation Use any item 1 or 2	1. Maximum 3 1/2" BASF WALLTITE® LWP or WALLTITE® US directly on the Exterior Sheathing coated with No-Burn® Plus ThB (15 wet mils) + Behr® Premium Plus Exterior Paint (6 wet mils) or equivalent exterior paint 2. Maximum 3 1/2" BASF WALLTITE® LWP or WALLTITE® US directly on the Exterior Sheathing coated with No-Burn® ThB Spray Seal™ (16 wet mils). a. Z-girts[1,4] may be oriented vertically or horizontally. Z-girts shall be made of 20-gauge galvanized steel with 4" web and 2" legs. Vertical Z-girts shall be installed on the Exterior Sheathing spaced 24" o.c. A horizontal Z-girt, with the outer leg oriented downward, shall be installed on the Exterior Sheathing at the top and bottom of the wall, and at each floor line as a through-wall flashing. b. Closures[2, 4] are made of a minimum 20-gauge aluminum with 3" web x 3" leg x 2" leg. Closures shall be installed over the Exterior Wall System around the perimeter of the wall at floor lines and around window openings. At the floor lines, J-trim and Z-flashings are utilized to finish the cut ends.
Exterior Cladding[4] Use any item 1 - 9 *Note:* Combining the Exterior Cladding[2] and Hat Channels[3] creates an air cavity that allows for an overall maximum air cavity of 3"	1. Maximum 20-gauge aluminum or steel cladding oriented vertically or horizontally[2] 2. Natural Stone Veneer – minimum 2" thick 3. Brick – Nominal 4" clay brick with a maximum 2" air gap between exterior insulation and brick. Standard brick ties/anchors installed 24" o.c. vertically on each stud 4. Cast Artificial Stone, such as Cultured Stone and Masonry, minimum 1 1/2" thick complying with AC51 5. Uninsulated Fiber Cement siding minimum. 1/4" thick 6. Stucco 3/4" minimum exterior cement plaster and lath 7. Limestone 2" minimum using standard non-open joint installation 8. Terra Cotta Cladding 1 1/4" minimum using standard installation technique 9. Autoclaved-Aerated-Concrete (AAC) panels (minimum 1 1/2" thick)
Window Perimeter	1. Minimum 20-gauge aluminum flashing

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Table 4. Approved NFPA 285 Exterior Wall Assemblies with BASF Walltite US or SprayTite Comfort in Wall Cavity and on Exterior of Wall Assembly

Wall Component	Materials
SI: 1" = 25.4 mm 1. Drip caps made of minimum 20-gauge aluminum shall be used. The drip caps shall be installed horizontally, at the top of the wall assembly, at the bottom of the wall assembly, and at openings using one minimum Type-S, #8 x 3/4" long self-tapping pan-head screw on both the upper and lower flange of the Hat Channel. When installed horizontally, the 3" leg is fastened to the Z-girts using one minimum Type-S, #8 x 3/4" long self-tapping pan-head screw at each Z-girt location. When installed vertically, the 3" legs are fastened to the Z-girts using minimum Type-S #8 x 3/4" long self-tapping pan-head screws spaced 12" o.c. 2. Vertical or horizontal cladding shall have no opening between adjacent claddings. Once installed vertically or horizontally fastened on one edge with the opposite edge interlocked to the adjacent cladding edge. Cladding fasteners are a minimum Type-S #8 x 3/4" long self-tapping pan-head screw. 3. Hat Channels shall be made of 18-gauge galvanized steel. Hat Channels may be vented or unvented. Hat Channels may be installed vertically or horizontally over the Exterior Wall System spaced with maximum 24" o.c. and fastened at each Z-girt location across the span of Hat Channel using one minimum Type-S, #8 x 3/4" long self-tapping pan-head screw on both the upper and lower flange of the Hat Channel. 4. Sealant is silicone-based and installed as a bead in typical locations (for moisture control) along all the interfaces between the Closures, Exterior Cladding, Drip Cap, etc. Weep hole openings in the sealant are permitted. Where sealing of vertical joints between adjacent Exterior Cladding panels is required, only 100% silicone sealant is permitted.	

Table 5. Approved NFPA 285 Exterior Wall Assemblies with Accufoam CC-HFO in Wall Cavity and on Exterior of Wall Assembly

Wall Component	Materials
Interior Sheathing	1. One layer of minimum 5/8" Type X gypsum wallboard
Base Wall System Use item 1, 2, 3, or 4	1. Cast Concrete Walls 2. CMU Concrete Walls 3. Nominal 2 x 4" or larger Fire-Retardant Treated (FRT) wood studs spaced a maximum of 24" o.c. Openings shall be framed with the same FRT wood studs. 4. Minimum 3 1/2" deep, minimum 20-gauge equivalent thick steel studs spaced a maximum of 24" o.c. Openings shall be framed with minimum 20-gauge steel C-channels matching the depth of the studs.
Fire-Stopping in Stud Cavity at Floor Lines Use Item 1 for Base Wall, Item 3, or Item 2 for Base Wall Item 4[1]	1. One layer of nominal 2x FRT lumber – minimum 1 1/2" thick 2. Minimum 4" thick, 4-pcf mineral fiber (wool) safing insulation (friction fit or installed with Z-clips)
Cavity Insulation Use any item 1 - 5[3]	1. None 2. Any noncombustible insulation per ASTM E136 3. Maximum 3 1/2" thickness of Accufoam CC-HFO within any approved stud cavity 4. Fiberglass batt insulation (faced or unfaced) 5. Mineral fiber insulation (faced or unfaced)
Exterior Sheathing Use any item 1 - 3	1. One layer of 5/8" thick Type X exterior type gypsum sheathing 2. One layer of 1/2" thick glass mat exterior gypsum wallboard 3. One layer of 5/8" thick Type X gypsum wallboard
Exterior Insulation	1. 3 3/4" thick maximum Accufoam CC-HFO coated with No Burn Plus ThB (20 mils WFT)[1]

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Table 5. Approved NFPA 285 Exterior Wall Assemblies with Accufoam CC-HFO in Wall Cavity and on Exterior of Wall Assembly

Wall Component	Materials
Exterior Cladding[2] Use any item 1 - 18 The air gap shall not exceed 2.67" between the cladding and insulation. Panel claddings may use vertical or horizontal Z girt attachment. Panel claddings may be vertical or horizontal.	1. Brick – Nominal 4" clay brick; Standard brick ties/anchors installed 24" o.c. (maximum) vertically on each stud 2. Concrete – minimum 1" thick – open or non-open joint 3. CMU – minimum 1" thick – open or non-open joint 4. Stone Veneer – minimum 1" thick – open or non-open joint 5. Terracotta Cladding – minimum 1 1/4" thick (solid or hollow) using any standard open or non-open joint installation technique such as shiplap 6. Stucco – 3/4" minimum exterior cement plaster and lath – open or non-open joint 7. Aluminum cladding – 0.08" minimum thickness – open or non-open joint 8. Steel cladding – 0.0149" minimum thickness – open or non-open joint 9. Copper cladding – 0.0216" minimum thickness – open or non-open joint 10. Zinc cladding – 0.104" minimum thickness – open or non-open joint 11. Terreal Zephir Evolution Rainscreen System (or similar terracotta), minimum 9/16" thick – open or non-open joint 12. 1/4" minimum fiber cement cladding – open or non-open joint 13. SwissPearl Carat Panels – 0.315" minimum thickness – open or non-open joint 14. One-coat Stucco – 3/8" minimum exterior cement plaster and lath open or non-open joint 15. Thin brick adhered (with noncombustible mortar) to stucco base 3/4" minimum – open or non-open joint 16. FunderMax m.look Panels – 1/4" thick (minimum) – open or non-open joint.
Opening Detail	1. The window header, jambs sill, and other openings are completely covered from interior gypsum wallboard to exterior cladding with minimum 20-gauge aluminum flashing

SI: 1" = 25.4 mm

1. Fireblocking shall comply with IBC Section 718 and thermal barrier material requirements shall be met for BWS 1 and 2, as required by specific wall construction details when combustible concealed space is created on the exterior side of the exterior wall assembly.
2. Combustible exterior wall coverings shall be installed in accordance with the manufacturer installation requirements.
3. Minimum 1/2" gypsum board on the interior side to protect the spray foam insulation.

Table 6. Approved NFPA 285 Exterior Wall Assemblies with BASF Walltite MAX in Wall Cavity and on Exterior of Wall Assembly

Wall Component	Materials
Interior Gypsum	1. One layer of minimum 5/8" Type X gypsum wallboard installed using #6 x 1 1/4" long bugle head screws spaced 8" o.c. around the wallboard perimeter and 24" in the field
Base Wall System	1. Minimum 20-gauge, 1.5" x 3 5/8" deep steel studs fastened to 3 5/8" deep, 20-gauge galvanized steel track at 24" o.c. The studs were connected to the track with one #6 x 1/2" long self-drilling, pan head faster per stud flange.
Fire-Stopping in Stud Cavity at Floor Lines	1. Minimum 4" thick, 4-pcf mineral fiber (wool) safing insulation in each framing cavity (thickness to match framing depth), at each floor line

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Table 6. Approved NFPA 285 Exterior Wall Assemblies with BASF Walltite MAX in Wall Cavity and on Exterior of Wall Assembly

Wall Component	Materials
Cavity or Interior Insulation[3]	1. BASF WALLTITE MAX Closed Cell Spray Foam Core applied directly to the inside face of the exterior sheathing within the cavities created by the galvanized steel studs at 3 5/8" maximum thickness
Exterior Sheathing	1. 1/2" thick exterior gypsum board installed on the exterior side of the frame using #6 x 1 1/4" long bugle head screws with a nominal spacing of 8" around the board perimeter and 24" in the field
WRB Over Sheathing	1. Sensershield-RS Vapor Permeable Air/Water Resistive Barrier Membrane installed to the exterior sheathing at a nominal thickness of 12 wet mils. 6" deep Strongirt z-girts are installed oriented horizontally with a maximum spacing of 30" o.c.
WRB Over Exterior Insulation	1. None
Exterior Insulation	1. Walltite MAX closed cell spray foam applied to the exterior sheathing within the cavities created by the Z-girts and over the Sensershield RS Vapor Permeable Air/Water-resistive Barrier, allowing for a nominal 2" cavity *Note:* No-Burn ThB Spray Seal intumescent coating shall be applied at a nominal WFT of 15 mils over the cavity insulation.[1]
Exterior Cladding[2] Item 9 may use any tested/approved installation technique. Items 10, 11, and 14 may use any standard installation technique. If Claddings 2, 3, 4, 5, 7, 8, 15, or 16 are on stucco base with lath, a secondary WRB (WRB items above allowed over foam) can be installed between the insulation and lath and must not be full coverage asphalt or butyl based self-adhering membranes, but may be asphalt or butyl based slip sheet (stapled) with no adhesive.	1. Alucobond Plus aluminum composite panels (4 mm nominal thickness) installed to the Strongirt Z-girts, with ACM Byrne MetalBond® 200 Series hardware. The wall assembly incorporated a vertical joint at the centerline of the window opening. Horizontal seams were located approximately 24" and 84" above the top of the window opening 2. Additional cladding options: a. Brick - Nominal 4" clay or concrete brick or veneer with a maximum 2" air gap behind the brick. Brick Ties/Anchors 24" o.c. (maximum) b. Stucco – minimum 3/4" thick exterior cement plaster and lath c. Limestone – minimum 2" thick using any standard non-open joint installation technique such as shiplap d. Natural Stone Veneer - minimum 2" thick using any standard non-open joint installation technique such as grouted/mortared stone e. Cast Artificial Stone – minimum 1 1/2" thick complying with ICC-ES AC 51 using any standard non-open joint installation technique such as shiplap f. Terracotta Cladding – minimum 1 1/4" thick (solid or equivalent by weight) using any standard non-open joint installation technique such as shiplap g. Thin brick/cultured stone set in thin-set adhesive and metal lath tested to ASTM E119 (brick exposed to furnace) and remains in place for a minimum of 30 minutes or has passed an NFPA 285 test; Minimum 3/4" h. Glen Gery Thin Tech Elite Series Masonry Veneer or TABS II Panel System with 1/2" thick bricks using TABS Wall Adhesive i. Any MCM that has successfully passed NFPA 285 j. Uninsulated sheet metal building panels including steel, copper, aluminum (or zinc only with Xci-Ply [Class A]) k. 1/4" (minimum) uninsulated fiber-cement siding or porcelain or ceramic tile mechanically attached

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Table 6. Approved NFPA 285 Exterior Wall Assemblies with BASF Walltite MAX in Wall Cavity and on Exterior of Wall Assembly

Wall Component	Materials
Exterior Cladding Continued	l. Stone, porcelain, ceramic/aluminum honeycomb composite building panels that have successfully passed NFPA 285 criteria m. Autoclaved-Aerated-Concrete (AAC) panels that have successfully passed NFPA 285 criteria n. Terracotta Cladding – Any Rain-screen Terracotta (minimum 1/2" thick) with ventilated shiplap o. 1/2" Stucco – Any one coat stucco (1/2" minimum) which meets AC11 acceptance criteria or is approved for use in Type I-IV construction or has been tested per NFPA 285 or stays in place when tested per ASTM E119 (stucco exposed to fire) for at least 30 minutes p. Natural Stone Veneer – minimum 1 1/4" thick using any standard installation technique q. FunderMax m.look– minimum 1/4" thick using any standard installation technique
Window Perimeter	1. Minimum 0.04" aluminum flashing, applied around the window opening perimeter of the wall with a minimum 2" leg on the interior face of the wall.

SI: 1" = 25.4 mm

1. Fireblocking shall comply with IBC Section 718 and thermal barrier material requirements shall be met for BWS 1 and 2, as required by specific wall construction details when combustible concealed space is created on the exterior side of the exterior wall assembly.
2. Combustible exterior wall coverings shall be installed in accordance with the manufacturer installation requirements.
3. Minimum 1/2" gypsum board on the interior side to protect the spray foam insulation.

Table 7. Approved NFPA 285 Exterior Wall Assemblies with Green Valley Products GVP 2.0 HFO in Wall Cavity and on Exterior of Wall Assembly

Wall Component	Materials
Interior Gypsum	1. One layer of minimum 5/8" Type X gypsum wallboard installed using #6 - 1 1/4" long Type-S bugle head screws spaced 8" on center around the wallboard perimeter and 12" in the field
Base Wall System	1. Minimum 20-gauge, 1.5" x 3 5/8" deep steel studs fastened to 3 5/8" deep, 20-gauge galvanized steel track at 24" on center; The studs were connected to the track with one #6 – 1/2" long self-drilling, pan head fastener per stud flange
Floor Line Firestopping	1. Firestop consisted of 4" thick, 4-pcf mineral wool safing, friction fit in each stud cavity
Cavity or Interior Insulation	1. Green Valley Products GVP 2.0 HFO Closed Cell Spray Foam shall be applied directly to the inside face of the exterior sheathing within the cavities created by the galvanized steel studs at 3 5/8" thickness
Exterior Sheathing	1. 1/2" thick glass mat exterior sheathing complying with ASTM C1177 installed on the exterior side of the frame using #6 1 1/4" long Type S self-drilling screws; The fasteners were spaced 8" o.c. around the perimeter and 24" o.c. in the field of the sheathing panels
WRB Over Sheathing	1. Sensershield RS Vapor Permeable Air/Water Resistive Barrier Membrane installed to the exterior sheathing at a nominal thickness of 12 wet mils. 6" deep Strongirt z-girts are installed oriented horizontally with a maximum spacing of 30" o.c.

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Table 7. Approved NFPA 285 Exterior Wall Assemblies with Green Valley Products GVP 2.0 HFO in Wall Cavity and on Exterior of Wall Assembly

Wall Component	Materials
Exterior Insulation	1. Green Valley Products GVP 2.0 HFO closed cell spray foam applied at a nominal thickness of 4" to the exterior sheathing within the cavities created by the horizontal Strongirts and over the Sensershield RS Vapor Permeable Air/Water-resistive Barrier *Note:* No-Burn ThB Spray Seal intumescent coating shall be applied at a nominal WFT of 15 mils over the cavity insulation.
Exterior Cladding Item 9 may use any tested/approved installation technique. Items 10, 11, and 14 may use any standard installation technique. If Claddings 2, 3, 4, 5, 7, 8, 15, or 16 are on stucco base with lath, a secondary WRB (WRB items above allowed over foam) can be installed between the insulation and lath and must not be full coverage asphalt or butyl based self-adhering membranes, but may be asphalt or butyl based slip sheet (stapled) with no adhesive.	1. Alucobond® Plus aluminum composite panels (4 mm nominal thickness) are installed to Strongirts. The horizontal joint of the ACM panel system was positioned approximately 29 5/8" above the window header and extended the full width of the wall assembly. The vertical joint of the ACM panel system was positioned 11" from the vertical centerline of the assembly and extended from the window header to the top of the wall assembly. 2. Additional cladding options: a. Brick – Nominal 4" clay or concrete brick or veneer with a maximum 2" air gap behind the brick; Brick Ties/Anchors 24" o.c. (maximum) b. Stucco – minimum 3/4" thick exterior cement plaster and lath c. Limestone – minimum 2" thick using any standard non-open joint installation technique such as shiplap d. Natural Stone Veneer – minimum 2" thick using any standard non-open joint installation technique such as grouted/mortared stone e. Cast Artificial Stone – minimum 1 1/2" thick complying with ICC-ES AC 51 using any standard non-open joint installation technique such as shiplap f. Terracotta Cladding – minimum 1 1/4" thick (solid or equivalent by weight) using any standard non-open joint installation technique such as shiplap g. Thin brick/cultured stone set in thin-set adhesive and metal lath tested to ASTM E119 (brick exposed to furnace) and remains in place for a minimum of 30 minutes or has passed an NFPA 285 test. Minimum 3/4" h. Glen Gery Thin Tech Elite Series Masonry Veneer or TABS II Panel System with 1/2" thick bricks using TABS Wall Adhesive i. Any MCM that has successfully passed NFPA 285 j. Uninsulated sheet metal building panels including steel, copper, aluminum (or zinc only with Xci-Ply [Class A]) k. 1/4" (minimum) uninsulated fiber-cement siding or porcelain or ceramic tile mechanically attached l. Stone, porcelain, ceramic/aluminum honeycomb composite building panels that have successfully passed NFPA 285 criteria m. Autoclaved-Aerated-Concrete (AAC) panels that have successfully passed NFPA 285 criteria n. Terracotta Cladding – Any Rain-screen Terracotta (minimum 1/2" thick) with ventilated shiplap o. 1/2" Stucco – Any one coat stucco (1/2" minimum) which meets AC11 acceptance criteria or is approved for use in Type I-IV construction or has been tested per NFPA 285 or stays in place when tested per ASTM E119 (stucco exposed to fire) for at least 30 minutes p. Natural Stone Veneer – minimum 1 1/4" thick using any standard installation technique q. FunderMax m.look– minimum 1/4" thick using any standard installation technique

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Table 7. Approved NFPA 285 Exterior Wall Assemblies with Green Valley Products GVP 2.0 HFO in Wall Cavity and on Exterior of Wall Assembly

Wall Component	Materials
Window Perimeter	1. Minimum 0.04-gauge aluminum flashing covered the window opening. The flashing on the header covered a 24-gauge stainless steel piece. The window header leg is 12 1/4" deep with a 1/2" long drip edge on the exterior side of the assembly. The flashing on the sill covered a 16-gauge metal flashing. The windowsill aluminum flashing has 13 3/4" leg covering the length of the window opening and a 2" lip on the exterior face of the assembly and a nominal 3/4" drip edge. Window jams are covered with 12 1/4" 16-gauge aluminum flashing. Window jamb flashing shall be installed so the leading edges are flush with the outer edge of the panel system. The flashing piece shall terminate at the interior edge of the window framing C-channel perimeter applied around the window opening perimeter of the wall with a minimum 2" leg on the interior face of the wall.
SI: 1" = 25.4 mm	

6.5 Alternative techniques shall be permitted in accordance with accepted engineering practice and experience. These provisions for the use of alternative materials, designs, and methods of construction are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed herein. This includes, but is not limited to, the following areas of engineering: mechanics of materials, structures, building science, and fire science.

7 Certified Performance[29]

7.1 All construction methods shall conform to accepted engineering practices to ensure durable, livable, and safe construction and shall demonstrate acceptable workmanship reflecting journeyman quality of work of the various trades.[30]

7.2 The strength and rigidity of the component parts and/or the integrated structure shall be determined by engineering analysis or by suitable load tests to simulate the actual loads and conditions of application that occur.[31]

8 Regulatory Evaluation and Accepted Engineering Practice

8.1 No-Burn Plus ThB and No-Burn ThB Spray Seal comply with the following legislatively adopted regulations and/or accepted engineering practice for the following reasons:

8.1.1 Approval for use as a thermal barrier in accordance with IBC Section 2603.9 and IRC Section R303.6.[32]

8.1.2 Approval for use as an ignition barrier in accordance with IBC Section 2603.4.1.6, IBC Section 2603.9, IRC Section R303.5.3,[33] IRC Section R303.5.4,[34] and IRC Section R303.6.[35]

8.1.3 Approval for use as an interior finish in accordance with IBC Section 803.1, IBC Section 803.4, IRC Section R302.9, and IRC Section R302.10.1.

8.1.4 Approval for use as an interior finish or interior trim in plenums in accordance with IBC Section 2603.7 and IMC Section 602.3.7.[36]

8.1.5 Approval for use as a Class II vapor retarder in accordance with IBC Section 1202, IBC Section 1404.3, IRC Section R702.7, and IRC Section R806.

8.1.6 Approval for use in NFPA 285 exterior wall assemblies in accordance with IBC Section 2603.5.5.

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8.2 Any building code, regulation and/or accepted engineering evaluations (e.g., research reports, duly authenticated reports, etc.) that are conducted for this Listing were performed by DrJ, which is an ISO/IEC 17065 accredited certification body and a professional engineering company operated by RDP or approved sources. DrJ is qualified[37] to practice product and regulatory compliance services within its scope of accreditation and engineering expertise,[38] respectively.

8.3 Engineering evaluations are conducted with DrJ's ANAB accredited ICS code scope of expertise, which is also its areas of professional engineering competence.

9 Installation

9.1 Installation shall comply with the approved construction documents, the manufacturer installation instructions, this report, and the applicable building code.

9.2 In the event of a conflict between the manufacturer installation instructions and this report, contact the manufacturer for counsel on the proper installation method.

9.3 *Installation Procedure*

9.3.1 The substrates that No-Burn Plus ThB and No-Burn ThB Spray Seal 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.

9.3.2 No-Burn Plus ThB and No-Burn ThB Spray Seal are white in color.

9.3.3 A paint thickness gauge shall be used to verify the proper thickness during application.

9.3.4 The dry mil thickness will be 0.4 to 0.7 times the wet mil thickness.

9.3.5 Apply No-Burn Plus ThB and No-Burn ThB Spray Seal only to the substrates listed in **Table 1** through **Table 7**, in accordance with the assembly selected.

9.3.6 Substrates shall be fully protected from the weather and fully installed prior to application.

9.3.7 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.

9.3.8 Apply the coatings at the rate specified in **Table 1** through **Table 3**.

9.3.9 Coatings may be applied via roller, brush or spraying equipment.

9.3.10 After curing, the coating may be overcoated with latex paint per the paint manufacturer instructions.

9.3.11 The No-Burn and SPF Installation Form Spray Polyurethane Foam Insulation Certificate (SPFA-148), or the spray polyurethane foam insulation manufacturer insulation certificate may be completed by the intumescent coating installer and submitted upon request.

10 Substantiating Data

10.1 Testing has been performed under the supervision of a professional engineer and/or under the requirements of ISO/IEC 17025 as follows:

10.1.1 Reports of fire tests in accordance with NFPA 286, UL 1715, and NFPA 285

10.1.2 Supporting documentation from spray foam manufacturer and evidence of code compliance

10.2 Information contained herein may include the result of testing and/or data analysis by sources that are approved agencies, approved sources, and/or an RDP. Accuracy of external test data and resulting analysis is relied upon.

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10.3 Where applicable, testing and/or engineering analysis are based upon provisions that have been codified into law through state or local adoption of regulations and standards. The developers of these regulations and standards are responsible for the reliability of published content. DrJ's engineering practice may use a regulation-adopted provision as the control. A regulation-endorsed control versus a simulation of the conditions of application to occur establishes a new material as being equivalent to the regulatory provision in terms of quality, strength, effectiveness, fire resistance, durability, and safety.

10.4 The accuracy of the provisions provided herein may be reliant upon the published properties of raw materials, which are defined by the grade mark, grade stamp, mill certificate, or duly authenticated reports from approved agencies and/or approved sources provided by the supplier. These are presumed to be minimum properties and relied upon to be accurate. The reliability of DrJ's engineering practice, as contained in this duly authenticated report, may be dependent upon published design properties by others.

10.5 *Testing and Engineering Analysis*

10.5.1 The strength, rigidity, and/or general performance of component parts and/or the integrated structure are determined by suitable tests that simulate the actual conditions of application that occur and/or by accepted engineering practice and experience.[39]

10.6 Where additional condition of use and/or regulatory compliance information is required, please search for No-Burn Plus ThB and No-Burn ThB Spray Seal on the DrJ Certification website.

11 Findings

11.1 As outlined in **Section 6**, No-Burn Plus ThB and No-Burn ThB Spray Seal have performance characteristics that were tested and/or meet applicable regulations. In addition, they are suitable for use pursuant to its specified purpose.

11.2 When used and installed in accordance with this duly authenticated report and the manufacturer installation instructions, No-Burn Plus ThB and No-Burn ThB Spray Seal shall be approved for the following applications:

11.2.1 No-Burn Plus ThB and No-Burn ThB Spray Seal are approved for the protection of SPF insulation to allow the SPF to be installed without a prescriptive 15-minute Thermal Barrier.

11.2.2 No-Burn Plus ThB and No-Burn ThB Spray Seal are approved for the protection of SPF in attics and crawl spaces to allow the SPF to be installed without a prescriptive Ignition Barrier.

11.2.3 No-Burn ThB Spray Seal is approved as a Class II Vapor Retarder.

11.2.4 No-Burn Plus ThB and No-Burn ThB Spray Seal are approved for the protection of SPF insulation in NFPA 285 Exterior Wall Assemblies

11.3 Any application specific issues not addressed herein can be engineered by an RDP. Assistance with engineering is available from No-Burn, Inc.

11.4 IBC Section 104.2.3[40] (IRC Section R104.2.2[41] and IFC Section 104.2.3[42] are similar) in pertinent part state:

> **104.2.3 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 is not specifically prohibited by this code and has been approved.

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11.5 **Approved:**[43] Building regulations require that the building official shall accept duly authenticated reports.[44]

11.5.1 An approved agency is *"approved"* when it is ANAB ISO/IEC 17065 accredited.

11.5.2 An approved source is *"approved"* when an RDP is properly licensed to transact engineering commerce.

11.5.3 Federal law, Title 18 US Code Section 242, requires that, where the alternative product, material, service, design, assembly, and/or method of construction is not approved, the building official shall respond in writing, stating the reasons why the alternative was not approved. Denial without written reason deprives a protected right to free and fair competition in the marketplace.

11.6 DrJ is a licensed engineering company, employs licensed RDPs and is an ANAB Accredited Product Certification Body – Accreditation #1131.

11.7 Through the IAF Multilateral Arrangement (MLA), this duly authenticated report can be used to obtain product approval in any jurisdiction or country because all ANAB ISO/IEC 17065 duly authenticated reports are equivalent.[45]

12 Conditions of Use

12.1 As defined in **Section 6**, where material and/or engineering mechanics properties are created for load resisting design purposes, the resistance to the applied load shall not exceed the ability of the defined properties to resist those loads using the principles of accepted engineering practice.

12.2 Assemblies shall be limited to those shown in **Table 1** through **Table 7**, as applicable.

12.3 When required by adopted legislation and enforced by the building official, also known as the Authority Having Jurisdiction (AHJ) in which the project is to be constructed:

12.3.1 Any calculations incorporated into the construction documents shall conform to accepted engineering practice and, when prepared by an approved source, shall be approved when signed and sealed.

12.3.2 This report and the installation instructions shall be submitted at the time of permit application.

12.3.3 At a minimum, these innovative products shall be installed per **Section 9**.

12.3.4 The review of this report by the AHJ shall comply with IBC Section 104.2.3.2 and IBC Section 105.3.1.

12.3.5 These innovative products have an internal quality control program and a third party quality assurance program in accordance with IBC Section 104.7.2, IBC Section 110.4, IBC Section 1703, IRC Section R104.7.2, and IRC Section R109.2.

12.3.6 The application of these innovative products in the context of this report is dependent upon the accuracy of the construction documents, implementation of installation instructions, inspection as required by IBC Section 110.3, IRC Section R109.2, and any other regulatory requirements that may apply.

12.4 The approval of this report by the AHJ shall comply with IBC Section 1707.1, where legislation states in part, *"the building official shall make, or cause to be made, the necessary tests and investigations; or the building official shall accept duly authenticated reports from approved agencies in respect to the quality and manner of use of new materials or assemblies as provided for in Section 104.2.3"*, all of IBC Section 104, and IBC Section 105.3.

12.5 Design loads shall be determined in accordance with the regulations adopted by the jurisdiction in which the project is to be constructed and/or by the building designer (i.e., owner or RDP).

12.6 The actual design, suitability, and use of this report for any particular building, is the responsibility of the owner or the authorized agent of the owner.

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13 Identification

13.1 No-Burn Plus ThB and No-Burn ThB Spray Seal, as listed in **Section 1.1**, are identified by a label on the board or packaging material bearing the manufacturer name, product name, this report number, and other information to confirm code compliance.

13.2 Additional technical information can be found at noburn.com.

14 Review Schedule

14.1 This report is subject to periodic review and revision. For the latest version, visit www.drjcertification.org.

14.2 For information on the status of this report, please contact DrJ Certification.

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Notes

1 For more information, visit drjcertification.org or call us at 608-310-6748.

2 Capitalized terms and responsibilities are defined pursuant to the applicable building code, applicable reference standards, the latest edition of TPI 1, the NDS, AISI S202, US professional engineering law, Canadian building code, Canada professional engineering law, Qualtim External Appendix A: Definitions/Commentary, Qualtim External Appendix B: Project/Deliverables, Qualtim External Appendix C: Intellectual Property and Trade Secrets, definitions created within Design Drawings and/or definitions within Reference Sheets. Beyond this, terms not defined shall have ordinarily accepted meanings as the context implies. Words used in the present tense include the future; words stated in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural, the singular.

3 https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1702

4 Alternative Materials, Design and Methods of Construction and Equipment: The provisions of any regulation code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by a regulation. Please review https://www.justice.gov/atr/mission and https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#104.2.3

5 https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1706.2:~:text=the%20design%20strengths%20and%20permissible%20stresses%20shall%20be%20established%20by%20tests

6 The design strengths and permissible stresses of any structural material shall conform to the specifications and methods of design of accepted engineering practice. https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1706.1:~:text=Conformance%20to%20Standards-,The%20design%20strengths%20and%20permissible%20stresses,-of%20any%20structural

7 https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1707.1:~:text=the%20building%20official%20shall%20make%2C%20or%20cause%20to%20be%20made%2C%20the%20necessary%20tests%20and%20investigations%3B%20or%20the%20building%20official%20shall%20accept%20duly%20authenticated%20reports%20from%20approved%20agencies%20in%20respect%20to%20the%20quality%20and%20manner%20of%20use%20of%20new%20materials%20or%20assemblies%20as%20provided%20for%20in%20Section%20104.2.3.

8 https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1703.4.2

9 https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#approved_agency

10 https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#approved_source

11 https://www.law.cornell.edu/uscode/text/18/1832 (b) Any organization that commits any offense described in subsection (a) shall be fined not more than the greater of $5,000,000 or 3 times the value of the stolen trade secret to the organization, including expenses for research and design and other costs of reproducing the trade secret that the organization has thereby avoided. The federal government and each state have a public records act. To follow DTSA and comply state public records and trade secret legislation requires approval through ANAB ISO/IEC 17065 accredited certification bodies or approved sources. For more information, please review this website: Intellectual Property and Trade Secrets.

12 https://www.nspe.org/resources/issues-and-advocacy/professional-policies-and-position-statements/regulation-professional AND https://apassociation.org/list-of-engineering-boards-in-each-state-archive/

13 https://www.cbitest.com/accreditation/

14 https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#104.1:~:text=directed%20to%20enforce%20the%20provisions%20of%20this%20code

15 https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#104.2.3 AND https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#105.3.1

16 https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1707.1

17 https://iaf.nu/en/about-iaf-mla/#:~:text=Once%20an%20accreditation%20body%20is%20a%20signatory%20of%20the%20IAF%20MLA%2C%20it%20is%20required%20to%20recognise%20certificates%20and%20validation%20and%20verification%20statements%20issued%20by%20conformity%20assessment%20bodies%20accredited%20by%20all%20other%20signatories%20of%20the%20IAF%20MLA%2C%20with%20the%20appropriate%20scope

18 True for all ANAB accredited product evaluation agencies and all International Trade Agreements.

19 https://www.justice.gov/crt/deprivation-rights-under-color-law AND https://www.justice.gov/atr/mission

20 Unless otherwise noted, the links referenced herein use un-amended versions of the 2024 International Code Council (ICC) 2024 International Code Council (ICC) model codes as foundation references. Mississippi versions of the IBC 2024 and the IRC 2024 are un-amended. This material, product, design, service and/or method of construction also complies with the 2000-2012 versions of the referenced codes and the standards referenced therein. As pertinent to this technical and code compliance evaluation, CBI and/or DrJ staff have reviewed any state or local regulatory amendments to assure this report is in compliance.

21 See Adoptions by Publisher for the latest adoption of a non-amended or amended model code by the local jurisdiction. https://up.codes/codes/general

22 See Adoptions by Publisher for the latest adoption of a non-amended or amended model code by state. https://up.codes/codes/general

23 https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3282/subpart-A/section-3282.14

24 https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280

25 https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280#p-3280.2(Listed%20or%20certified); https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#listed AND https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#labeled

26 2021 IRC Section R316.6

27 2021 IRC Section R316.5.3

28 2021 IRC Section R316.5.4

29 https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1703.4

30 https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280#:~:text=All%20construction%20methods%20shall%20be%20in%20conformance%20with%20accepted%20engineering%20practices%20to%20insure%20durable%2C%20livable%2C%20and%20safe%20housing%20and%20shall%20demonstrate%20acceptable%20workmanship%20reflecting%20journeyman%20quality%20of%20work%20of%20the%20various%20trades

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[31] https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280#:~:text=The%20strength%20and%20rigidity%20of%20the%20component%20parts%20and/or%20the%20integrated%20structure%20shall%20be%20determined%20by%20engineering%20analysis%20or%20by%20suitable%20load%20tests%20to%20simulate%20the%20actual%20loads%20and%20conditions%20of%20application%20that%20occur

[32] 2021 IRC Section R316.6

[33] 2021 IRC Section R316.5.3

[34] 2021 IRC Section R316.5.4

[35] 2021 IRC Section R316.6

[36] 2021 IMC Section 602.2.1.6

[37] Qualification is performed by a legislatively defined Accreditation Body. ANSI National Accreditation Board (ANAB) is the largest independent accreditation body in North America and provides services in more than 75 countries. DrJ is an ANAB accredited product certification body.

[38] https://anabpd.ansi.org/Accreditation/product-certification/AllDirectoryDetails?prgID=1&orgID=2125&statusID=4#:~:text=Bill%20Payment%20Date-,Accredited%20Scopes,-13%20ENVIRONMENT.%20HEALTH

[39] See Code of Federal Regulations (CFR) Title 24 Subtitle B Chapter XX Part 3280 for definition: https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280

[40] 2021 IBC Section 104.11

[41] 2021 IRC Section R104.11

[42] 2018: https://up.codes/viewer/wyoming/ifc-2018/chapter/1/scope-and-administration#104.9 AND 2021: https://up.codes/viewer/wyoming/ibc-2021/chapter/1/scope-and-administration#104.11

[43] Approved is an adjective that modifies the noun after it. For example, Approved Agency means that the Agency is accepted officially as being suitable in a particular situation. This example conforms to IBC/IRC/IFC Section 201.4 (https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#201.4) where the building code authorizes sentences to have an ordinarily accepted meaning such as the context implies.

[44] https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1707.1

[45] Multilateral approval is true for all ANAB accredited product evaluation agencies and all International Trade Agreements.

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