

## **BUILDING PRODUCTS LISTING PROGRAM**

Customer: **Firestable® Insulation Company**

Class: Polyurethane Foam Insulation  
Location: Essex, CT

Listing No. B1134-1  
Effective Date: May 30, 2022  
Last Revised: Date: February 28, 2023  
Expires: <N/A>

Standards: ASTM E84 *Standard Test Method for Surface Burning Characteristics of Building Materials.*  
UL 723 *Standard for Test for Surface Burning Characteristics of Building Materials.*  
NFPA 255 *Standard Method of Test of Surface Burning Characteristics of Building Materials.*  
ASTM E2768 *Standard Test method for Extended Duration Surface Burning Characteristics of Building Materials (30 min Tunnel Test).*  
NFPA 275 *Standard Method of Fire Tests for the Evaluation of Thermal Barriers.*  
UL 1715 *Fire Test of Interior Finish Materials.*  
2021 / 2018 International Building Code Section 803.14 *Stability.*  
2015 International Building Code Section 803.12 *Stability.*

Product: Firestable® FS 2.0 Spray-Applied Foam.

Description: Firestable® FS 2.0 is a spray-applied polyurethane foam used as a thermal barrier for the protection of foam plastics described below. Firestable® is available in the following colors:

- Cloud White.
- Charcoal.

Markings: Firestable® FS 2.0 Component A and Component B drums bear a label with markings including the information outlined below:

- Manufacturer's Name
- Product name – Firestable® FS 2.0
- ASTM E84 Class A: Flame Spread ≤ 25 / Smoke Development ≤ 450 @ 4"
- Traceability Code (Lot Number)
- QAI Listing Number (B1134) and Certification Logo shown:



Models / Ratings:

The following outlines Firestable® FS 2.0 Spray-Applied Foam results determined in accordance with ASTM E84, UL 723, and ANSI/NFPA 255:

PRODUCT	FLAME SPREAD INDEX (FSI)	SMOKE DEVELOPED INDEX (SDI)	THICKNESS MAX. (inches)	DENSITY MAX (lbs/ft <sup>3</sup> )
Firestable® FS 2.0	≤ 25	≤ 450	4	2.8

The following outlines Firestable® FS 2.0 Spray-Applied Foam results determined in accordance with ASTM E2768 / ASTM E84 Continued for 20 Minutes:

PRODUCT	FLAME SPREAD INDEX (FSI)	SIGNIFICANT PROGRESSIVE COMBUSTION	MAX FLAME FRONT (ft)	THICKNESS MAX. (inches)	DENSITY MAX (lbs/ft <sup>3</sup> )
Firestable® FS 2.0	≤ 25	No	≤ 10.5	4	2.8

The following outlines Firestable® FS 2.0 spray-applied foam approved installation as a thermal barrier for protection of foam plastics in accordance with NFPA 275:

INSTALLED FIRESTABLE® FS 2.0 ≥ 2.5 INCHES THICKNESS, 2.5 lbs/ft <sup>3</sup> DENSITY			
THERMOPLASTIC INSULATION		THERMOSETTING INSULATION	
DENSITY (lbs/ft <sup>3</sup> )	MAX. THICKNESS (inches)	MAX. DENSITY (lbs/ft <sup>3</sup> )	MAX. THICKNESS (inches)
1.0	5-1/2	3.0	6-1/2
1.5	3-1/4		
2.0	2.5		
2.5	2		
3.0	1-3/4		

Firestable® FS 2.0 spray-applied foam has met 2021 / 2018 International Building Code Section 803.14 *Stability*, 2015 International Building Code Section 803.12 *Stability* when applied to thermoplastic foam plastics, thermosetting foam plastics, cement board, metal and gypsum-based substrates.

**The following outlines Firestable® FS 2.0 results determined in accordance with UL 1715<sup>1</sup>:**

Note 1: Testing to UL 1715 was conducted following 2021 / 2018 / 2015 International Building Code Section 2603.9 *Special Approval* evaluation based on full scale testing of an end-use configuration.

PRODUCT	BASE FOAM TYPE	BASE FOAM THICKNESS (inches)	BASE FOAM DENSITY (lbs/ft <sup>3</sup> )	INSTALLATION
Firestable® FS 2.0  A) Alternate	No Base Foam	Firestable FS 2.0 at 2.5 lbs/ft <sup>3</sup> nominal density target from 1" to 9" installed thickness.		Ensure the substrate is dry and clean of debris and dust. Firestable FS 2.0 is applied in a single pass up to 2.5 inches thickness, at 2.5 lbs/ft <sup>3</sup> target density (2.3 – 2.8 lbs/ft <sup>3</sup> required). FS 2.0 is applied to ensure a continuous unbroken surface across walls and ceilings. Installation of Firestable FS 2.0 to be done at ambient temperatures of 30 – 100°F where temperatures are > 5°F above the dew point to ensure bond to substrate.
Firestable® FS 2.0  B) Equivalent		Firestable FS 2.0 at 2.5 lbs/ft <sup>3</sup> nominal density target at ≥ 2.5 inches where installed per NFPA 275 above.		
Firestable® FS 2.0	Thermoplastic	See NFPA 275 Above		Ensure base foam is dry and clean of debris and dust. Firestable FS 2.0 is applied in a single pass to minimum 2.5 inches thickness, at 2.5 lbs/ft <sup>3</sup> target density (2.3 – 2.8 lbs/ft <sup>3</sup> required). FS 2.0 is applied to ensure a continuous unbroken surface across walls and ceilings to ensure underlying foam protection with no voids or gaps present. Installation of Firestable FS 2.0 to be done at ambient temperatures of 30 – 100°F where temperatures are > 5°F above the dew point to ensure bond to base foam layer.
Firestable® FS 2.0	Thermosetting	See NFPA 275 Above		First pass of thermosetting foam base layer is applied to maximum thickness and density described in NFPA 275 above. The base layer is to be allowed to condition to ambient temperature and confirmed to be clean and dry prior to application of Firestable FS 2.0. Following, at minimum a single pass of Firestable FS 2.0 is to be applied at 2.5 inches thickness, at 2.5 lbs/ft <sup>3</sup> target density (2.3 – 2.8 lbs/ft <sup>3</sup> installed required). FS 2.0 is applied to ensure a continuous unbroken surface across walls and ceilings to ensure underlying foam protection with no voids or gaps present. Installation of Firestable FS 2.0 to be done at ambient temperatures of 30 – 100°F where temperatures are > 5°F above the dew point to ensure bond to base foam layer.

For application the manufacturers installations instructions must be followed, foam **MUST** be cured and cooled to ambient conditions, all surface preparation should be carried out in accordance with good application practices. Firestable® FS 2.0 should be installed by qualified contractors to ensure product performance.

Firestable FS 2.0 is to be installed at target thicknesses noted, in the density tolerances shown for use as a thermal barrier.

Final acceptance of the product in the intended application is to be determined by the authority having jurisdiction.

The materials, products or systems listed herein have been qualified to bear the QAI Listing Mark under the conditions stated with each Listing. Only those products bearing the QAI Listing Mark are considered to be listed by QAI. No warranty is expressed or implied, and no guarantee is provided that any jurisdictional authority will accept the Listing found herein. The appropriate authorities should be contacted regarding the acceptability of any given Listing. Visit the QAI Online Listing Directory located at [www.qai.org](http://www.qai.org) for the most up to date version of this Listing and to validate that this QAI Listing is active. Questions regarding this listing may be directed to [info@qai.org](mailto:info@qai.org). Please include the listing number in the request.

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