



December 15, 2023

## Guidance Documentation for LEED v4 AND EPD-085

### PRODUCT DESCRIPTION

**Firestable™ FS 2.0 NFPA 275 thermal barrier Spray Polyurethane Foam (SPF) Insulation**

### MATERIALS AND RESOURCES

#### **MRc2 - Environmental Product Declaration – Option 1 EPDs (1 Point Potential):**

Industry-wide (generic) EPD available for SPF via the Spray Polyurethane Foam Alliance – Products with third-party certification (Type III), including external verification, in which the manufacturer is explicitly recognized as a participant by the program operator are valued as one half (1/2) of a product for purposes of credit achievement calculation.

**ASTM EPD-085** See [www.firestable.com](http://www.firestable.com) search “EPD\_firestable”

Also See EPD for SPFA\_EPD\_20181029\_HFO.pdf

**SPF Life Cycle Assessment** See SPFA-Life Cycle Assessment-details.pdf

### REGIONAL MATERIALS

Spray applied polyurethane foam insulation is considered to be manufactured on site because the final product is not manufactured at a factory. The resin and isocyanate components of the product are shipped to the construction site where they are combined at an approximate 1 to 1 ratio to make Firestable FS 2.0 NFPA 275 thermal barrier SPF.

The isocyanate is manufactured in Louisiana, Texas US or China and is shipped by train or by tanker truck to Houston Tx or Essex Ct locations and/or to our insulation contractors.

The resin used to make Firestable FS 2.0 NFPA 275 thermal barrier SPF contains the following materials:

- Polyols, more than 20% of the resin– shipped via tanker truck from Texas
- Blowing agent of water,– acquired directly at Plant with no shipping cost.
- Recycled /repurposed fire retardant package, over 45% of the resin – shipped in bulk by truck from locations in Texas or Arkansas US.
- Catalysts and surfactants, remaining difference – shipped in drums from Pa,USA

### INDOOR ENVIRONMENTAL QUALITY

#### **EQc2 – Low Emitting Materials (1-3 Points Potential)**

**General emissions evaluation.** Building products must be tested and determined compliant in accordance with California Department of Public Health (CDPH) Standard Method v1.1-2010 using the applicable exposure scenario.

Firestable FS 2.0 NFPA 275 thermal barrier SPF (Information can be found on the SDS) has 0 g/L emissions and meets the requirements of CA Section 01350 for VOC emissions and formaldehyde. Firestable FS 2.0 NFPA 275 thermal barrier SPF has a TVOC of TBD(emission study pending 2/24) mg/m<sup>3</sup> or less.

#### **EQc5 – THERMAL COMFORT**

Firestable FS 2.0 NFPA 275 thermal barrier SPF allows the building envelope to be designed in such a way as to provide a thermally comfortable environment that supports the productivity and well-being of occupants.

### ENERGY & ATMOSPHERE

#### **EAc2 – Optimize Energy Performance**

Firestable FS 2.0 NFPA 275 thermal barrier SPF has a Long Term Thermal Resistance (LTTR) value of 5 per inch(via C518 accelerated 130 day). Additional thermal performance has been documented through studies and with the use of calculators and modeling that demonstrates additional energy savings with additional SPF thicknesses and, as the product is seamless and self-adhered, forming an air seal without thermal breaks.