



**CERTIFIED  
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Technical Data Sheet

## Rigid, Spray-applied Polyurethane Foam Insulation Zero Ozone Depletion Substance, Class I ASTM

**HEATLOK SOY®** is two component spray applied rigid polyurethane foam, green in color, having a nominal density 2lbs/ft<sup>3</sup>. This spray foam has been specially formulated to meet the intent of the International Code Council (ICC) building codes and is used primarily as a vapor barrier, air barrier and thermal insulation on above and below grade interior and exterior applications. Complies with FEMA requirements as a Class 4 insulation.

**HEATLOK SOY®** is environmentally-friendly foam developed from recycled plastic materials and renewable soy oils, while the blowing agent is the HFC 245fa. Certified Insulation Material approved by California Department of Consumer Affairs. *GREENGUARD* and *GREENGUARD Children and Schools* certified.

Physical Properties			
Method	Description	Imperial units	Metric units
ASTM D 1622	Density (core)	2.1-2.3 lb/ft <sup>3</sup>	34-37 Kg/m <sup>3</sup>
ASTM C 518 (R-Value)	Initial Thermal Resistance, 1" Aged Thermal Resistance, 180 days @ 23°C, 1"	7.2 ft <sup>2</sup> h°F/BTU 6.6 ft <sup>2</sup> h°F/BTU	1.26 m <sup>2</sup> °C/W 1.17 m <sup>2</sup> °C/W
ASTM D 1621	Compressive Strength (10%)	28.3 psi	195 kPa
ASTM D 1623	Tensile Strength	51.5 psi	355 kPa
ASTM D 2126	Dimensional Stability ( 28 days) (sample without any substrate) -4°F (-20°C), ambient RH 176°F (80°C), ambient R.H. 158°F (70°C), 97% R.H.	<b>% Volume Change</b>	
			-0.03 + 2.9 + 9.8
ASTM D 2842	Water Absorption (Serves as moisture barrier)	<b>0.8% Volume</b>	
ASTM E 96	Water Vapor Permeance, 1" (Note: Is a vapor barrier of 1 perm or less at thicknesses greater than 1.2" per IBC Section 202, Definitions)	<b>1.2 perms, 69ng/Pasm<sup>2</sup> @ 1"</b>	
ASTM E 283-04 ASTM E2178-03	Air Permeance @ 75Pa, 1" (Note: Air Barrier Association of America approved air barrier)	<b>0.001L/sm<sup>2</sup> @ 1"</b> <b>0.000L/sm<sup>2</sup> @ 1.5"</b>	
ASTM E 84-05	Surface Burning Characteristics, 3"thick • Flame spread index • Smoke development	<b>20</b> <b>450</b>	
CAN/ULC S774	VOC Emissions from Polyurethane Foam	<b>Pass (1 day)</b>	
ASTM C 1338	Fungi Resistance	<b>No fungal growth</b>	
ASTM D 2856	Closed Cell Content	<b>&gt; 92%</b>	
ASTM D 6866	Bio-based Content	<b>5%</b>	

### Liquid Components Properties

Property	Isocyanate A 100	Resin B 217-0
Color	Brown	Greenish
Specific gravity	1.20 – 1.24	1.20 – 1.24
Shelf life*	6 months	6 months
Mixing ratio (volume)	100	100
Vapor pressure @ 25°C	10 <sup>-7</sup> psi	7 – 9 psi

\* See MSDS for more information.

**Note:** Store the resin at temperatures 59 - 77°F (15 – 25°C). Keep away from direct sunlight.

### Processing Parameters

	Imperial units	Metric units
Type of machine	Graco® Reactor E-30 with Fusion gun and O2 Mixing Chamber	
Components A & B temperature	100°F	38°C
Components A & B pressure	850 – 1000 psi	5860 – 6900 kPa
Ambient temperature	73°F	23°C
Thickness per pass	1 ¼ inches	30 mm
Number of passes	2	
Substrate	Polyethylene Board	

### Reactivity Profile

Cream time (s)	Gel time (s)	Tack free time (s)	End of rise (s)
0-1	2	4-5	4

### Recommended Processing Conditions

	Imperial units	Metric units
Mixing ration A:B	1:1	
Mixing temperature	100 – 120°F	38 – 49°C
Mixing pressure	800 psi	5516 kPa
Substrate & Ambient temperature	>14°F	>(-10)°C
Curing temperature	>14°F	>(-10)°C
Maximum thickness per pass	2 in.	50 mm

**General Information:** It is recommended that the foam is covered with an approved thermal barrier in accordance to the local and national building codes when used in buildings and a protective coating when used outside. This product should not be used when the continuous service temperature of the substrate is outside the range of -76°F (-60°C) to 176°F (80°C). Spraying too thick sections too fast may result in charring of the foam, or in extreme conditions a fire may result.



**Disclaimer:** The information herein is to assist customers in determining whether our products are suitable for their applications. We request that customers inspect and test our products before use and satisfy themselves as to contents and suitability. Nothing herein shall constitute a warranty, express or implied, including any warranty of merchantability or fitness, nor is protection from any law or patent infringement. All patent rights are reserved. The foam product is combustible and must be covered by an approved thermal barrier. Protect from direct flame and sparks contact. The exclusive remedy for all proven claims is replacement of our materials.



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