



DEMILEC (USA) LLC.
POLYURETHANE SYSTEMS MANUFACTURER

TECHNICAL DATA SHEET

HEATLOK[®] Soy INSULATION

RIGID, SPRAY-APPLIED POLYURETHANE FOAM 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/ft³. This spray foam has been specially formulated to meet the intent of the US Building Codes and is used primarily in air barrier and insulation applications.

HEATLOK[®] SOY is environmentally-friendly foam developed from recycled plastic materials and renewable soy oils, while the blowing agent is the HFC 245fa.

Method	Description	Imperial units	Metric units
ASTM D1622	Density (core)	2.1-2.3 lb/ft ³	34-37 Kg/m ³
ASTM C518 (R-Value)	Initial Thermal Resistance, 1" Aged Thermal Resistance, 180 days @ 23°C, 1"	7.2 ft ² h°F/BTU 6.6 ft ² h°F/BTU	1.26 m ² °C/W 1.17 m ² °C/W
ASTM D1621	Compressive Strength (10%)	28.3 psi	195 kPa
ASTM D1623	Tensile Strength	51.5 psi	355 kPa
ASTM D2126	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.	% Volume Change -0.03 + 2.9 + 9.8	
ASTM D2842	Water Absorption	0.8% Volume	
ASTM E96	Water Vapor Permeance, 1"	1.2 perms	69ng/Pasm ²
CCMC 07273	Air Permeance @ 75Pa, 1"	13.1*10 ⁻⁸ ft ³ /sft ²	0.00004L/sm ²
ASTM E84-05	Surface Burning Characteristics, 3"thick • Flame spread index • Smoke development	20 450	
CAN/ULC S774	VOC Emissions from Polyurethane Foam	Pass (1 day)	
ASTM C1338	Fungi Resistance	No fungal growth	
ASTM D2856	Closed Cell Content	> 92%	

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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LIQUID COMPONENTS PROPERTIES		
PROPERTY	ISOCYANATE A 100	RESIN B 200
Color	Brown	Greenish
Viscosity @ 77°F	150 – 250 cps	150 – 350 cps
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 ⁻⁷ 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 02 Mixing chamber	
Components A&B Temperature	100°F	38°C
Components A & B pressure	850-1000psi	5860-6900 kPa
Ambient temperature	73°F	23°C
Thickness per pass	1 1/4 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 ratio 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	2in	50mm

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.