

## TECHNICAL DATA SHEET

Heatlok Soya HFO / Polarfoam Soya HFO are two component, low GWP, closed cell, spray applied, rigid polyurethane foam systems. This foam product has been tested by an independent recognized laboratory and is the first product that surpasses the requirements outlined in the most recent and strenuous standard CAN/ULC S705.1 “Standard for thermal insulation - Spray applied rigid polyurethane foam, medium density - Material Specification”. Heatlok Soya HFO/ Polarfoam Soya HFO material complies with the requirements of National Building Code of Canada and is listed by the National Research Council Canada under CCMC Listing 14078-L as an insulation product. This product is commonly used as a thermal insulation product, air barrier, vapour barrier for interior, exterior applications above and below grade. Heatlok Soya HFO / Polarfoam Soya HFO uses recycled plastic materials, rapidly renewable soy oils, and 4th generation blowing agent with zero ozone depleting potential and < 1 global warming potential. This product meets all the requirements of the Paris, Kyoto and Montreal protocols. Heatlok Soya HFO/ Polarfoam Soya HFO is applied exclusively by CALIBER QAP licensed installers and contractors in accordance with the standard CAN/ULC S705.2.

PHYSICAL PROPERTIES - PER CCMC LISTING 14078-L			
ASTM D 1622-14	Apparent Core Density	2.10 lb/ft <sup>3</sup>	33.7 kg/m <sup>3</sup>
CAN/ULC S770-09	Long Term Thermal Resistance LTTR 75 mm 50 mm	R-17 R-11	2.96 RSI 1.86 RSI
ASTM D 1621-16	Compressive Strength (@ 10% deflection)	24.8 lb./in <sup>2</sup>	171 kPa
ASTM D 1623-09	Tensile Strength	58.2 lb./in <sup>2</sup>	401 kPa
ASTM D 6226-15	Open-Cell Content	0 %	
ASTM D 2842-12	Water Absorption by volume	0.64 %	
ASTM E 96-16	Water Vapour Permeance (50 mm thick, top skin removed)	0.89 perm	51 ng/Pa.s.m <sup>2</sup>
ASTM E 2178-13	Air Permeance @ 75 Pa (30.7 mm thick, top skin removed)	0.0017 L/(s•m <sup>2</sup> )	
CAN/ULC S102-10	Flame Spread Index (corner wall test) Required and Declared Value (building code)	245	
ASTM D 2126-15	Dimensional Stability (28 days) (% volume change, sample without any substrate) @ -20°C @ +80°C @ +70°C & 97±3%R.H.	-1.4 +1.3 +9.4	
CAN/ULC S774-09 (R2014)	Time of Occupancy (VOC)	1 day	
ASTM C 1338-14	Fungi Resistance	No Fungal Growth	

PHYSICAL PROPERTIES - Additional Testing			
CAN/ULC S770-03	Long Term Thermal Resistance LTTR 75 mm 50 mm	R-19 R-12	3.26 RSI 2.03 RSI
UL Greenguard	Interior Air Quality	Certified Gold	

RECYCLED & RENEWABLE CONTENT	
Recycled Content	18 %
Renewable Materials Content	4 %

REACTIVITY PROFILE			
Cream Time	Gel Time	Tack Free Time	End of Rise
0 - 1 seconds	3 seconds	5 - 6 seconds	5 - 6 seconds

LIQUID COMPONENT PROPERTIES*		
PROPERTY	ISOCYANATE	RESIN
Colour	Brown	Heatlok Soya HFO: Blue Polarfoam Soya HFO: Orange
Viscosity @ 25°C	150 - 350 cps	200 - 300 cps
Specific Gravity	1.20 - 1.24	1.19 - 1.21
Shelf Life*	6 months	6 months
Mixing Ratio (volume)	100	100
Vapour Pressure @ 25°C	10 <sup>-7</sup> psi	8 - 9 psi
Components system storage temperature recommendation	15 @ 25°C (59 @ 77°F)	15 @ 25°C (59 @ 77°F)

\*See SDS for more information.

RECOMMENDED PROCESSING PROCEDURES		
Mixing Ratio A/B (volume)	1/1	
Mixing Dynamic Pressure (minimum)	5516 kPa	800 psi
Moisture Content of Substrate	< 19%	< 19%
Maximum Thickness Per Pass	50 mm	2"
Maximum Thickness of Successive Passes	100 mm	4"
Minimum cooling time period before applying over 100 mm (4") thick application	4 h	
PRODUCT VERSION	APPLICATION TEMPERATURES (AIR, SUBSTRATE, & CURING)	LIQUID TEMPERATURE AT THE GUN
Summer Version	30 @ 5°C (41 @ 86°F)	35 @ 46°C (95 @ 115°F)
Winter Version	5 @ -10°C (41 @ 14°F)	38 @ 49°C (100 @ 120°F)

**General Information:** It is recommended that the foam be covered with an approved thermal barrier in accordance with the applicable building code when used in buildings and cover by a UV coating when used outside. This product should not be used when the continuous service temperature of the substrate is outside the range of -60°C to 80°C (-76°F to 180°F). Do not apply excessive thickness in one application it may cause spontaneous combustion of the foam hours after the application. Respect the recommended procedures. Airmétic Soya HFO is the French trade name of Heatlok Soya HFO. Heatlok Soya HFO is green in color. Polarfoam Soya HFO is orange in color.

**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, expressed or implied, including any warranty of merchantability or fitness, nor is protection from any law or patent inferred. All patent rights are reserved. The foam product is combustible and must be protected in accordance with applicable codes. Protect from direct flame and spark contact, around hot work for example. The exclusive remedy for all proven claims is replacement of our materials.



ZeroODS