DEMILEC
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TECHNICAL DATA SHEET

HEATLOK SOYA
SPRAY POLYURETHANE FOAM

POLARFOAM PF-7300-O SOYA
URETHANE FOAM INSULATION MATERIAL

Spray Polyurethane Foam Insulation

CAN/ULC S705.1 (Including Amendments 1 and 2), TYPE 2

ZeroODS

HEATLOK™ SOYA is an insulation spray applied rigid polyurethane foam, green in color, that is tested by an independent recognized laboratory since 2006. This foam product surpass the requirements outlined in CAN/ULC S705.1-01 (Including amendment 1 & 2) " Standard for thermal insulation – Spray applied rigid polyurethane foam, medium density – Material Specification ". HEATLOK SOYA Type 2 material (i.e. the highest LTTR R value classification) meets the requirement of National Building Code of Canada and is listed by the National Research Council Canada under CCMC Listing # 13244-L. HEATLOK SOYA is formulated from recycled plastic material, soya oil, and without any Ozone Depletion Substance blowing agent (Zero ODS). This product meets all the requirements of the Montreal protocol to protect the ozone layer. HEATLOK SOYA exceeds the highest requirements for VOC with the GREENGUARD GOLD certification. HEATLOK SOYA is applied exclusively by CUFCA licensed installers and contractors under the application standard CAN/ULC S705.2.

PHYSICAL PROPERTIES

Method	Description	Results	
ASTM D1622	Core density	34-37 Kg/m^3	(2.1-2.3 lb/ft^3)
ASTM C518	Initial Thermal Resistance, 25.4 mm	1,26 RSI	(R7.2)
	Thermal Resistance, 180 days @ 23°C, 25.4 mm	1,17 RSI	(R6.6)
CAN/ULC S770	Long Term Thermal Resistance (LTTR)		
	CAN/ULC S705.1-01 Classification	TYPE 2 (highest level)	
	Design Thermal Resistance (25.4 mm)	1 RSI	(R6)
ASTM D1621	Compressive Strength, (10%)	195 kPa	(28.3 psi)
ASTM D1623	Tensile Strength	355 kPa	(51.5 psi)
ASTM D 2856	Open cells	< 1%	
ASTM D2842	Volumetric Water Absorption %	0.8	
ASTM E96	Water Vapour Permeance, 50 mm	37 ng/Pa.s.m^2	(0.65 Perm)
CCMC 07273	Air Barrier Material, 25-30 mm	0.00004 L/s/m^2 @ 75 Pa	
CAN/ULC S102	Flame Spread Index	200	
	Smoke developed Index	<500	
ASTM D2126	Dimensional Stability, 28 days		
	(% Volume Change, sample without any substrate)		
	@ -20°C,	-0.03	
	@ 80°C,	+2.9	
	@ 70°C 97% R.H.	+9.8	
CAN/ULC S774	VOC Emissions from Polyurethane Foam	Pass (1 day)	
UL GREENGUARD	Interior Air Quality	Certified GOLD	
ASTM C 1338	Fungi Resistance	No Fungal Growth	

GREENGUARD GOLD

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HEATLOK™ *SOYA*

LIQUID COMPONENTS PROPERTIES

PROPERTY	ISOCYANATE A-100	RESIN B0240-0
Colour	Brown	Blue
Viscosity @ 25ºC	150-350 cps	150-350 cps
Specific gravity	1.20-1.24	1.19-1.23
Shelf life*	6 months	6 months
Mixing ratio (volume)	100	100
Vapor pressure @ 25°C	10^{-7} psi	7-9 psi
Components system storage temperature recommendation		15-25°C (59-77°F)

See MSDS for more information.

MACHINE PROCESSING PARAMETERS USED

Type of machine	:	GRACO H25, Air Purge gun #AR-5252
Components A&B Temperature	:	40^0C (104^oF)
Components A & B pressure	:	5860-6900 kPa (850-1000psi)
Ambient temperature	:	23^oC (73^oF)
Thickness per pass	:	32 mm ($1^{1/4}$ inches)
Number of passes	:	2
Substrate	:	Polyethylene Board

REACTIVITY PROFILE

Cream time	Gel time	Tack free time	End of rise
0-1 sec.	2-3 secs.	4-5 secs.	4-5 sec.

RECOMMENDED PROCESSING PROCEDURES

Mixing ratio A/B, volume	:	1/1	
Mixing dynamic pressure (minimum)	:	5516 kPa	(800 psi)
Maximum thickness per pass	:	50 mm	(2 in.)
Maximum thickness of successive passes	:	100 mm	(4 in.)
Minimum cooling time period before applying over 4 in. thick application	:	4 hours	

	Substrate & Ambient & Curing temperatures	Liquid temperature at the gun
Heatlok Soya Summer	5 to 30^0C (32 to 86^0F)	35 to 46^0C (95 to 115^0F)
Heatlok soya Winter	5 to -10^0C (32 to 14^0F)	38 to 49^0C (100 to 120^0F)
Heatlok Soya Super Winter	-10 to -20^0C (14 to -4^0F)	41 to 52^0C (105 to 125^0F)

GENERAL INFORMATIONS:

As any other plastic insulation, it is recommended that the foam be 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 -60^0C to 80^0C (-76^0F to 180^0F).Respect recommended processing installation procedures, never apply excessive thickness of SPF in one application, it may cause spontaneous combustion of the foam hours after the foam was installed. AIRMÉTIC SOYA is the French trade name of HEATLOK SOYA.