PREMIUM
SPRAY PRODUCTS CANADA™

FOAMSULATE ECO™

Medium Density Closed Cell Polyurethane Spray Foam System

TYPE 2 LTTR CCMC 13527-L

DESCRIPTION

Premium Spray Products' FOAMSULATE-ECO™ system is a true "Green" spray applied rigid polyurethane foam that contains rapidly renewable Soya, Corn, Sugar and Castor based polyols as well as recycled products derived from pre and post consumer products. FOAMSULATE-ECO is truly Green in nature, chemistry, colour and performance.

FOAMSULATE-ECO meets the CAN/ULC 705.1 requirements and has a listing number of CCMC 13527-L. FOAMSULATE-ECO has a distinct colour of Georgian Pine green.

FOAMSULATE-ECO utilizes, zero ozone-depleting substances and is designed for use in commercial and residential construction applications that involve the National Building Code of Canada. Foamsulate-Eco is applied by licensed applicators that follow the CAN/ULC S705.2 program. Premium Spray Products Canada utilizes Exova to administer our site quality assurance plan.

FOAMSULATE-ECO provides the highest rated TYPE 2 LTTR insulation value while also meeting requirements as a vapour barrier and air barrier. Other benefits include reductions in noise, dust, pollen, pest infiltrations and significant improvements on structural racking strength of wall assemblies.

FOAMSULATE -ECO™ is available in three reactivities including winter, spring/fall and summer.

ADVANTAGES

- *High R-value*
- *High Yield*
- *Air Barrier*
- *Vapour Barrier*
- *Low Viscosity Resin 600 cps*
- *Ease of Application*
- *High closed cell content*
- *Zero ODP*
- *Seamless Insulation*

For proper use of *FOAMSULATE™-ECO* spray foam, please refer to the PSP Foamsulate Installer Manual and the CAN/ULCS705.2 Rigid Polyurethane Foam Medium Density Application standard.

Technical Data Sheet

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FOAMSULATE-ECO TYPICAL PHYSICAL PROPERTIES

Property	CAN/ULC 705.1 Requirements	Metric Value (Imperial) Foamsulate-Eco values	Test Method
Core Density	≥28 kg/m³	37 (2.3)	ASTM D1622
Compressive Strength	≥170 kPa	282 (41 psi)	ASTM D1621
Tensile Strength	≥200 kPa	406 (59 psi)	ASTM D1623
Dimensional Stability - At -20C	≥-1	-0.5	ASTM 2126
At 80C	≥-1; ≤+8	1.6	
At 70C, 97% ± 3% RH	≤+14	2.0	
Open Cell Content	≤8 % by volume	5	ASTM D2856
Water Absorption	≤4 % by volume	0.3	ASTM D2842
Water Vapour Permeance	≤60 ng/(PAsm²)	58	ASTM E96
Air Permeance	≤0.02 L/s @ 75 Pa	0.0005	
Flame Spread	≤500	295	CAN/ULC-S102/S127
Volatile Organic Compounds (VOC)*	Declare	24 hours	CAN/ULC-S774
Initial R value	Declare	2.26 (R6.6)	ASTM C 518
LTTR (Long Term Thermal Resistance)	1.8 m²K/W for Type 1		
(for 50 mm sample)	2.0 m²K/W for Type 2	**2.0 TYPE 2**	CAN/ULC-S770

Independent lab at SRC conducting VOC testing for Foamsulate-Eco indicated a time to occupancy of 1 hour.
CCMC minimum allowable limit for VOC/occupancy is 24 hours with 0.3 air changes per hour.

Long Term Thermal Resistance - TYPE 2

Thickness mm (inches)	R Value per inch °F · ft² · hr / BTU · in	R Value total at thickness °F · ft² · hr / BTU · in	RSI K·m²/W
50 mm (2 inches)	5.7	11.4	2.0
75 mm (3 inches)	5.8	17.4	3.0
100 mm (4 inches)	5.9	23.6	4.1

***LTTR is a predicted value for closed cell foams to simulate a 5 year aged specimen at various thicknesses. However, LTTR still utilizes the old style R value test and is in PSP Canada's opinion not an accurate measurement of insulation and field performance of any spray foam.**

APPLICATION INFORMATION

STORAGE AND USE OF CHEMICALS

Cold chemicals can cause poor mixing, pump cavitations, or other process problems due to higher viscosity at lower temperatures. Condition the liquid in the drums to 60-85° F prior to use, do not exceed 90°F. Do not store in direct sunlight. Keep drums tightly closed when not in use. Shelf life of resin is six months from date of manufacture.

SAFE HANDLING OF LIQUID COMPONENTS

When removing bungs from containers use caution, contents may be under pressure. Loosen bung first and let any built up gas escape before completely removing. Avoid prolonged breathing of vapors. All individuals in contact with Foamsulate-Eco and Foamsulate Iso should have access and familiarize themselves to the MSDS. Kit sizes are 454 kgs (227kg A and 227kg B).

Technical Data Sheet

EQUIPMENT AND COMPONENT SETTINGS

Polyurethane foam systems should be processed through 1:1 fixed ratio spray equipment. FOAMSULATE-ECO B-side (white drum) is connected to the resin pump and the FOAMSULATE A-side (black or red drum) is connected to the isocyanate pump. The pre-heater and hose temperature should be set between 100-120^{o} F and able to maintain $\pm 5^{o}$ F to the spray gun. Proportioner pumps must be able to maintain at least 1000 psi output during spray. Winter reactivity is FF, Spring/Fall reactivity is SF and summer reactivity is RG.

APPLICATION GUIDELINES

15-50 mm is the required thickness per pass per CAN/ULC 705.2. Allow adequate time between each pass to allow for cooling. Multiple passes can be applied to reach the desired thickness and insulation value. Exterior applications must be protected from UV light. When in doubt follow CAN/ULC S705.2 guidelines for application limitations.

CODE COMPLIANCE

The National Building code of Canada requires the use of an approved thermal barrier such as ½ inch gypsum board on exposed cellular plastic insulations in occupied spaces within a dwelling.

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