



DEMILEC

870 Curé Boivin, Boisbriand (Québec) Canada, J7G 2A7

Technical Data Sheet



SEMI-RIGID SPRAY APPLIED POLYURETHANE FOAM

SEALECTION 500 is a two component open cell spray-applied semi-rigid polyurethane foam insulation system. This product is a fully water blown foam system having a very low in-place density and recognized as an ECOLOGO product by Terra Choice. SEALECTION 500 meets the off gassing requirements of CAN/ULC S705.1-01. SEALECTION 500 has been evaluated by CCMC (12697-R) since 1995 for installation in open cavities such as stud walls, perimeter joist, cathedral and garage ceilings and complies with the intent of the National Building Codes of Canada, Article 9.25.2.2. Ruling No. 95-10-29-(12697-R) authorizing the use of this product in Ontario. Canada Mortgage and Housing Corporation permits the use of this product in construction financed or insured under National Housing Act. Licensed contractors using qualified installers as recognized by a third party organization and approved by DEMILEC shall manufacture SEALECTION 500 on site. This product meets all the requirements in the Montreal protocol to protect the ozone layer.

PHYSICAL PROPERTIES

Method	Description	Value
ASTM D1622	Density in place (core)	7.5-8.7 Kg/m ³ (0.47-0.54 lb/ft ³)
ASTM C518	Thermal Resistance (1 inch)	0.67 m ² °C/W (3.81 ft ² .h. ⁰ F/BTU.in)
ASTM D1621	Compressive Strength	5 kPa (0.7 psi)
ASTM D1623	Tensile Strength	17 kPa (2.5 psi)
ASTM E-90 & E-483	Sound transmission classification	
	- Ref 13 C Wall Assembly	STC-49
	- Ref W8 A Wall Assembly	STC-50
	- Ref Special 8A Wall Assembly	STC-52
	- F24 Floor Assembly	STC-50
ASTM D2842	Core Water Absorption (% volume)	47.9
ASTM E96	Core Water Vapour Permeance (25mm)	1300 ng/Pa.s.m ²
* See below	Core Air Permeability (25 mm thick)	0.1276 L/75 Pa.s.m ²
CAN/ULC S774	VOC Emission from PU Foam	pass (2days)
CAN/ULC S102	Surface Burning Characteristics	335
ASTM E-84	Flame spread index (6")	21
	Smoke development index (6")	216
ASTM C1338	Fungi Resistance Tests	No Fungal Growth
ASTM D1929	Spontaneous Ignition Temperature	580C (1076F)

* A test method to determine Air Flow Resistance of exterior membranes and sheathings (Journal of Thermal Insulation, volume 9, January 1986).

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 inferred. All patent rights are reserved. Like all plastic insulation, the foam product is combustible and must be covered by an approved thermal barrier. The exclusive remedy for all proven claims is replacement of our materials.



LIQUID COMPONENT PROPERTIES

PROPERTY	ISOCYANATE A500	RESIN B500
Colour	Brownish	Yellowish
Viscosity @ 25°C	150-250 cps	150-200 cps
Specific gravity	1.20-1.24	1.09-1.11
Shelf life*	6 months	6 months
Mixing ratio (volume)	100	100

* Consult MSDS for more information and Web Site “[http:// www.sealection500.com](http://www.sealection500.com)”

FOAM PROCESSING PARAMETERS

Type of machine	:	Gusmer H2000, D gun, # 62 mix chamber
A&B Components temperature	:	54 ⁰ C (130 ⁰ F)
A&B Components pressure	:	6205 kPa (900 psi)
Preheated drum material (A&B)	:	32 ⁰ C (90 ⁰ F)
B-side	:	Continuous agitation
Ambient temperature	:	21 ⁰ C (70 ⁰ F)

REACTIVITY PROFILE

Cream time	Gel time	Tack free time	End of rise
1-2 sec.	3-4 sec.	6-7 sec	6-7 sec.

RECOMMENDED PROCESSING CONDITIONS

Primary heater (A&B)	:	54 ⁰ C (130 ⁰ F)
Mixing pressure (A&B)	:	6205 kPa (900 psi)
Preheated drum material (A&B)	:	32 ⁰ C (90 ⁰ F)
B-side	:	Continuous agitation
Substrate & Ambient temperature	:	-20 ⁰ C to 35 ⁰ C (-4 ⁰ F to 95 ⁰ F)
Curing temperature	:	-20 ⁰ C and more
Maximum thickness per pass	:	unlimited
Waiting time between passes	:	> 20 seconds to avoid bad adhesion between pass

GENERAL INFORMATIONS

It is recommended that the foam be covered with an approved thermal barrier in accordance to the local and provincial building codes when used in buildings. This product should not be used when the continuous service temperature of the substrate is outside the range of -60⁰C to 80⁰C (-76⁰F to 180⁰F).