

TECHNICAL BULLETIN



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 S705.1-98. 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. SEALECTION 500 shall be manufactured on site by licensed contractors using qualified installers as recognized by a third party organization and approved by DEMILEC.

PHYSICAL PROPERTIES

Method	Description	Value
ASTM D1622	Density (core)	7.37 Kg/m ³ (0.46 lb/ft ³)
ASTM C518	Thermal Resistance 90 days @ 23 ⁰ C	0.671m ² . ⁰ C/W per 25mm (3.8 ft ² .h. ⁰ F/BTU.in)
ASTM D2856	Open Cell Content	N/A
ASTM D1621	Compressive Strength	5 kPa (0.7 psi)
ASTM D1623	Tensile Strength	17 kPa (2.5 psi)
ASTM E-90 & ASTM E-483	Sound transmission classification (STC) of a 2"x 6" wood stud wall insulated with SEALECTION 500	39
ASTM C-423	Noise reduction coefficient (NRC)	0.75
ASTM D2842	Water Absorption (% volume)	47.9
ASTM E96	Water Vapour Permeance	1504 ng/Pa.s.m ²
ASTM E283-91	Air Leakage	<0.02L/s.m ²
CAN/ULC S770	Volatile Organic Compound emission	pass
CAN/ULC S102M	Surface Burning Characteristics (25<F.S. <500)	335
ASTM E-84	Flame spread index (6")	21
	Smoke development index (6")	216
95-10-29	Ontario Ministry of Municipal affairs & housing	Approved

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. 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	Brown	Transparent Red
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.

FOAM PROCESSING PARAMETERS

Type of machine	:	Gusmer H2000, D gun, # 62 mix chamber
Primary heater (A&B)	:	54°C (130°F)
Hose temperature	:	49°C (120°F)
Preheated drum material (A&B)	:	32°C (90°F)
B-side	:	Continuous agitation
Ambient temperature	:	21°C (70°F)
Thickness of passe	:	4 inch (100mm)

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

GENERAL INFORMATIONS

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. This product should not be used when the continuous service temperature of the substrate is outside the range of -60°C (-76°F) to 80°C (176°F).