HUNTSMAN
BUILDING SOLUTIONS

SEALECTION® 500
TECHNICAL DATA SHEET

Sealection® 500 is a two component, open cell, spray applied, semi-rigid polyurethane foam system. This product is a fully water blown foam system with a low in-place density with excellent adhesion to various substrates and to itself. Sealection 500 incorporates the single phase solution technology developed by Huntsman Building Solutions for excellent shelf life and consistent processing. Sealection 500 complies with the intent of the International Code Council's residential and commercial building codes for spray polyurethane foam plastic insulation. Sealection 500 has been approved by the EcoLogo (formerly Environmental Choice) Program of Canada and is an NAHB Green Approved Product. Sealection 500 meets the USDA guidelines for incidental food contact.

PHYSICAL PROPERTIES			
ASTM D 1622	Density	0.45 – 0.5 lb/ft³	7.2 – 8 kg/m³
ASTM C 518	Aged Thermal Resistance (R-value @ 1 inch)	3.81 ft²h°F/BTU	0.67 Km²/W
ASTM E 283	Air Leakage (air impermeable per IRC, IBC & IECC requirements)		
	Air Permeance @ 75 Pa @ 3.5"	<0.02 L/sm²	
ASTM E 96	Water Vapor Permeance @ 3.5"	6.33 perms	362 ng/Pa•s•m²
ASTM C 423	Noise Reduction Coefficient (NRC)	0.75	
CAN/ULC-S774-09	VOC Emissions Standard	24 hr re-occupancy time, 2 hour ventilation period before PPE is no longer required	
ASTM D 1621	Compressive Strength	0.7 psi	4.8 kPa
ASTM D 1623	Tensile Strength	5.6 psi	38.6 kPa
ASTM C 1338	Fungi Resistance	Pass	

RECOMMENDED PROCESSING PARAMETERS		
Initial Primary Heater Setpoint Temperature	130 - 140° F	54 - 60° C
Initial Hose Heat Setpoint Temperature*	130 - 140° F	54 - 60° C
Initial Processing Setpoint Temperature	1200 - 1400 PSI	8274 - 9653 kPa
Substrate & Ambient Temperature	> 14° F	> -10°C
Moisture Content of Substrate	≤19%	≤19%
Moisture Content of Concrete	Concrete must be cured, dry, and free of dust and form release agents.	

*IT MAY BE NECCESARY TO SPLIT TEMPS DUE TO AMBIENT TEMPS AND MATERIAL VISCOCITY*** EX.~ A-130 B-136 HOSE-133

FIRE TEST RESULTS		
ASTM E 84	Surface Burning Characteristics, Flame Spread Index Smoke Developed	Class I 21 216
NFPA 286 AC377 Appendix X	Ignition Barrier – Compliant with IBC and IRC, and ICC-ES AC-377 Appendix X, for use in attics and crawl spaces with: DC 315 at 3 mils dry film thickness, 4 mils wet film thickness, or No-Burn Plus XD at 4 mils dry film thickness, 6 mils wet film thickness. Fireshell F10E at 11 mills dry film, 17 mils wet film.	Pass
NFPA 286	Thermal Barrier – Compliant with the 2012, 2015, 2018 & 2021 IBC and IRC,as an interior finish with a 15 minute thermal barrier with: No-Burn Plus ThB at 12 mils dry film thickness, 18 mils wet film thickness, or DC 315 at 12 mils dry film thickness, 18 mils wet film thickness.	Pass
NFPA 285	Compliant with IBC for exterior walls of Type I, II, III and IV buildings of any height. See ICC-ES ESR 1172, Section 4.6 for specific assembly. Contact the Huntsman Building Solutions Engineering Department for assistance with alternate assemblies.	Pass
ASTM E 119	Non load-bearing, 1 hour, wall assembly test. See ICC-ES ESR 1172, Section 4.5 for specific assembly. Contact the Huntsman Building Solutions Engineering Department for assistance with alternate assemblies.	Pass

End Use Configuration Testing allows for foam to be left exposed in attic space without a prescriptive ignition barrier or intumescent coating. CCRR-1063 for reference.

REACTIVITY PROFILE			
Cream Time 1 – 2 seconds	Gel Time 3 – 4 seconds	Tack Free Time 6 – 7 seconds	End of Rise 6 – 7 seconds

LIQUID COMPONENT PROPERTIES		
PROPERTY	A-PMDI ISOCYANATE	SEALECTION 500 RESIN
Color	Brown	Amber
Viscosity @ 77°F (25°C)	180 – 220 cps	150 – 300 cps
Specific Gravity	1.24	1.08 – 1.12
Shelf Life of unopened drum properly stored	12 months	12 months
Storage Temperature	50 – 100°F (10 – 38°C)	50 – 100°F (10 – 38°C)
Mixing Ratio (volume)	1:1	1:1

*See SDS for more information.

*Foam application temperatures and pressures can vary widely depending on temperature, humidity, elevation, substrate, equipment and other factors. While processing, the applicator must continuously observe the characteristics of the sprayed foam and adjust processing temperatures and pressures to maintain proper cell structure, adhesion, cohesion and general foam quality. It is the sole responsibility of the applicator to process and apply Sealection 500 within specification.

General Requirements: Equipment must be capable of delivering the proper ratio (1:1 by volume) of polymeric isocyanate (PMDI) and polyol formulation at adequate temperatures and spray pressures. Substrate must be at least 5 degrees above dew point, with best processing results when ambient humidity is below 80%. Substrate must also be free of moisture (dew or frost), grease, oil, solvents and other materials that would adversely affect adhesion of the polyurethane foam.

Sealection 500 must be separated from the interior of the building by an approved thermal barrier or an approved finish material equivalent to a thermal barrier in accordance with applicable codes. Sealection 500 must be sprayed at a minimum thickness of 3" per pass. This product must not be used when the continuous service temperature of the substrate or foam is below -60°F (-51°C) or above 180°F (82°C). Sealection 500 should not be used in contact with bulk water, below grade or to cover flexible ductwork.

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.

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