

TECHNICAL DATA SHEET

Material Specification Criteria | Project Submittal Data



Thermoseal 500

Light Density • Open Cell Spray Foam Insulation



ThermoSeal 500 is a two component, semi-rigid, totally water blown, .5lb light density polyurethane foam insulation system which simultaneously insulates and air-seals your building structure. ThermoSeal 500 has a global warming potential (GWP) of 1, which is the lowest of all spray foam products in the industry. ThermoSeal 500 requires the use of an “A” component (ISO) and a blended “B” component (RESIN), which contains ZERO ozone depleting blowing agents, catalysts, polyols and fire retarding materials. ThermoSeal 500 is designed to make homes more energy efficient, quieter, healthier and more comfortable. ThermoSeal 500 is applied as a liquid spray which expands approximately 100 times its initial mass and cures within seconds into a semi-rigid mass. ThermoSeal 500 fills all building cavities completely, sealing all cracks, crevices, and voids where air loss and infiltration are most common. If needed, excess material is easily trimmed off leaving a surface ready for drywall.

Physical Properties

Property	Value	Test Method
R-Value	4.1 @ 1"	ASTM C 518
Core Density	0.5 LB / Cubic Foot	ASTM D 1622
Open Cell Content	> 97%	ASTM D 6226
Water Vapor Transmission - Permanence	21 Perms at 1"	ASTM E 96
Air Leakage Rate	< 0.002 (L/s-m ²)	ASTM E 283
Tensile Strength (PSI)	5.19	ASTM D 1623
Dimensional Stability	< 5%	ASTM D 2126
Sound Transmission Coefficient	39	ASTM E 413
Noise Reduction Coefficient	0.75	ASTM C 423

Fire Properties

Property	Value	Test Method
Surface Burning Characteristics • Flame Spread • Smoke Index	Class 1 Pass <25 <450	ASTM E 84
Ignition Barrier	• Pass using DC315 manufactured by International Fireproof Technology, Inc at 6 Wet Mils - 4 Dry Mils coverage rate of .38 gals /100 sq. ft.	ICC- ES AC377 Appendix X
Thermal Barrier	• Pass using DC315 manufactured by International Fireproof Technology, Inc at 18 Wet Mils - 12 Dry Mils coverage rate of 1.2 gals/100 sq. ft. (4.2L/9.2m ²)	NFPA 286

Evaluation Report

Evaluation Report	IAPMO ER-0603	IAPMO ES
-------------------	---------------	----------

TECHNICAL DATA SHEET

Material Specification Criteria | Project Submittal Data



Thermoseal 500

Storage and Processing Information

Liquid Component Properties

Property	A Side - PMDI	B Side- Thermoseal 500
Color	Brown	Amber
Viscosity @ 77°F (25°C)	185 - 230 cps	250 - 390 cps
Specific Gravity	1.25	1.14 - 1.19
Storage Temperature	50°F-80°F (10°C-27°C)	50°F-80°F (10°C-27°C)
Mixing Ratio (By Volume)	1:1	1:1
Shelf Life • Of unopened drums stored within specified range	1 Year	180 Days

Recommended Processing Parameters

Recirculation Target	77°F - 90°F	25°C - 32°C
Primary Heater Target (Initial)	129°F	54°C
Primary Hose Target (Initial)	129°F	54°C
Target Processing Pressure	1200 psi	8274 kPa
Substrate & Ambient Temp	>32°F	>0°C
Moisture Content of Substrate	<20%	<20%
Moisture Content of Concrete • Must be clean and free of dust and debris	<10%	<10%

Processing - Application processing temperatures can vary and are dependent upon indoor ambient temperature, outdoor ambient temperature, substrate temperature, humidity, elevation, substrate type, equipment, and other factors. While manufacturing polyurethane foam plastic on site, the applicator must continuously observe the characteristics of the sprayed foam and adjust the processing temperatures and pressures to maintain optimal cell structure, adhesion, and overall foam quality. **It is the sole responsibility of the applicator** to manufacture Thermoseal polyurethane foam plastic on-site within our specifications. When applying Thermoseal, all substrates must be 10°F degrees above the dew point and free of all debris including frost, oil, rust, dust, or other debris. The equipment being used must be set to deliver a consistent 1:1 ratio by volume and must be capable of achieving at least 1200 psi and the target processing temperatures outlined in this manual. To maintain warranty status on all Thermoseal products, the Applicator's Thermoseal Training Certificate must be current. Thermoseal Training is free and can be conducted on our website at <http://www.ThermoSealUSA.com>.

DISCLAIMER: To the best of our knowledge, all technical data contained herein is true and accurate as of the date of issuance and subject to change without prior notice. User must contact Thermoseal, llc to verify correctness before specifying or ordering. We guarantee our products to conform to the quality control standards established by Thermoseal, llc. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of the product. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY THERMOSEAL USA EXPRESSED OR IMPLIED; STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.