

## Thermoseal 360

### Ultra Light Density • Open Cell Spray Foam Insulation



ThermoSeal 360 is a two component, semi-rigid, totally water blown, .4lb light density polyurethane foam insulation system which simultaneously insulates and air-seals your building structure. ThermoSeal 360 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 360 is designed to make homes more energy efficient, quieter, healthier and more comfortable. ThermoSeal 360 is applied as a liquid spray which expands approximately 100 times its initial mass and cures within seconds into a semi-rigid mass. ThermoSeal 360 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                               | 3.9 @ 1"                      | ASTM C 518  |
| Core Density                          | 0.42 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 <sup>2</sup> ) | 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<br>• Flame Spread<br>• Smoke Index | Class 1 Pass<br>≤10<br>≤170   | ASTM E 84                |
| Ignition Barrier   | • Pass using DC315 manufactured by International Fireproof Technology, Inc at 6 Wet Mills - 4 Dry Mills 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 20 Wet Mills - 13 Dry Mills coverage rate of 1.2 gals/100 sq. ft. (4.2L/9.2m <sup>2</sup> ) | NFPA 286                 |

### Evaluation Report

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

# TECHNICAL DATA SHEET

Material Specification Criteria | Project Submittal Data



## Thermoseal 360

### Storage and Processing Information

#### Liquid Component Properties

| Property  | A Side - PMDI          | B Side- Thermoseal 360 |
|---|------------------------|------------------------|
| 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<br>• 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<br>• 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>.

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