

Thermoseal 5G

Medium Density • Closed Cell Spray Foam Insulation

ThermoSeal 5G is a Next Generation two component, semi-rigid, medium density, 1.7 lb closed cell polyurethane foam insulation system which simultaneously insulates and air-seals your building structure. ThermoSeal 5G uses the latest generation, high performance blowing agent known as Solstice LBA developed by Honeywell. Solstice LBA has a Global Warming Potential ("GWP") up to 99.9% of the products they replace. ThermoSeal 5G requires the use of an "A" component (ISO) and a blended "B" component (RESIN), which contains ZERO ozone depleting catalysts, polyols and fire retarding materials. ThermoSeal 5G is designed to make homes more energy efficient, quieter, healthier and more comfortable. ThermoSeal 5G is applied as a liquid spray which expands approximately 15 times its initial mass and cures within seconds into a semi-rigid mass. ThermoSeal 5G fills all building cavities completely sealing all cracks, crevices, and voids where air loss and infiltration are most common.

Physical Properties

| Property | Value | Test Method |
|--------------------------------------|--|-------------|
| R-Value | 7.1 @ 1" | ASTM C 518 |
| Core Density | 1.7 LB / Cubic Foot | ASTM D 1622 |
| Closed Cell Content | >= 92% | ASTM D 2586 |
| Water Vapor Transmission - Permeance | Perms: .8 @ 1" / .23 @ 3.5" | ASTM E 96 |
| Air Leakage Rate | Zero (0) ft ³ /s.ft ² @ 75Pa | ASTM E 283 |
| Compressive Strength (PSI) | 20 | ASTM D 1621 |
| Tensile Strength (PSI) | 60 | ASTM D 1623 |
| Dimensional Stability | < 5% | ASTM D 2126 |
| Fungi Resistance | Zero Rating | ASTM G 21 |

Fire Properties

| Property | Value | Test Method |
|--|--|--------------------------|
| Surface Burning Characteristics • Flame Spread • Smoke Index | Class 1 Pass <25 <450 | ASTM E 84 |
| Ignition Barrier | • Complies with the applicable requirements of ICC-ES AC377 Appendix X for use in attics and crawlspaces without a prescriptive ignition barrier. | ICC- ES AC377 Appendix X |
| Thermal Barrier | • Pass using DC315 manufactured by International Fireproof Technology, Inc at (88.88 sq. ft./gal @ 18 mils wet and 12 mils dry) coverage rate of 1.136 gallons (4.3 L) per 100 square feet (9.3 m ²) | NFPA 286 |

Evaluation Report

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|-------------------|-----------------------------|----------|
| Evaluation Report | ER-0698 | IAPMO ES |
| Wind Uplift Test | PASS @135 (psf) / 233 (mph) | UL 1897 |

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Storage and Processing Information

Liquid Component Properties

| Property | A Side - PMDI | B Side- Thermoseal 5G |
|---|------------------------|------------------------|
| Color | Brown | Amber |
| Viscosity @ 77°F (25°C) | 185 - 230 cps | 400-520 cps |
| Specific Gravity | 1.25 | 1.17 - 1.19 |
| Storage Temperature | 50°F-75°F (10°C-24°C) | 50°F-75°F (10°C-24°C) |
| Mixing Ratio (By Volume) | 1:1 | 1:1 |
| Shelf Life • Of unopened drums stored within specified range | 1 Year | 12 Months |

Recommended Processing Parameters

| | | |
|---|--|---------------------------------|
| Recirculation Target | Do not recirculate. Gradually warm drums to 77°F prior to use. | |
| Primary Heater Target (Initial) | 129°F | 54°C |
| Primary Hose Target (Initial) | 129°F | 54°C |
| Target Processing Pressure | 1400 psi | 9652 kPa |
| Substrate & Ambient Temp | >14°F (Winter)/ >45 °F (Summer) | >-10°C (Winter)/ >7 °C (Summer) |
| 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>.

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