



PRODUCT USE AND DESIGN

Eterna Foam is a closed-cell, polyurethane foam, which was developed using an EPA approved fourth generation HFO blowing agent, specifically designed to provide a high performance, fully adhered roofing system providing insulation and water proofing over a variety of roof deck substrates and configurations. **Eterna Foam** locks in every portion of the roof creating a seamless membrane thus eliminating the need for mechanical fasteners — the number one cause of conventional roof leaks. **Eterna Foam** spray foam roofing can also be applied to vertical surfaces making the seamless coverage self-flashing. In addition to roofing applications, **Eterna Foam** is also recommended for tank insulation applications.

PRODUCT ADVANTAGES

- Offers a high R-value per inch
- Reduces installation time and costs
- Provides a waterproof monolithic roof system
- Enhances resistance to wind uplift and hail damage
- Decreases energy expenses compared to alternative solutions

REACTIVITY SELECTION

Winter: Surface temperature 50-75°F

Regular: Surface temperature 60-90°F

Summer: Surface temperature above 85°F

Heated trailers, hotboxes, or heated tank storage may be necessary. Material temperature should be confirmed with a thermometer.

PHYSICAL PROPERTIES

| ETERNA-FOAM | | |
|-----------------------|----------------------------------|------------------------------|
| Aged "R" Value: | ASTM C-518 | 6.8 per inch |
| Compressive Strength: | ASTM D-1621 40 min. | 45-55 psi |
| Core Density: | ASTM D-1622 | 2.7-2.9 lbs./ft ³ |
| Closed Cell Content: | ASTM D-2856 90 min. | >90% |
| Tensile Strength: | ASTM D-1623 60 min. | 75-85 psi |
| Water Absorption: | ASTM D-2842 (1.0 max per volume) | .44 lbs/ft ³ |

| | | |
|--|---|------------------------|
| Water Vapor Permeability: at 74°F, perm inch | ASTM E-96 2.5 max | 1.1 perms @ 1" |
| Dimensional Stability: 28 days at 158°F, 98%RH | ASTM D-2126 | 1.20% change in volume |
| Shelf Life: | 6 months when stored within recommended temperature range | |
| Coating Recommendation: | Eterna-Sil High Solids Silicone | |

PROCESSING PARAMETERS

Optimum pressure, preheat and hose temperature will vary from machine to machine. The performance of the foam system being applied will also be affected by the ambient and substrate temperatures as well as wind. It is the responsibility of the applicator to determine the optimum processing requirements of his machinery as these will change over the course of the day. The guidelines shown below should be used to determine a starting point for this optimization process.

| | |
|-----------------------|---------------------------|
| Dynamic Pressure | 1,000 - 1,400 psi |
| Preheat Temperature | 120 - 130°F (49 - 54°C) |
| Hose Heat Temperature | 120 - 130°F (49 - 54°C) |
| Drum Temp: In Use | 65 - 85° F (18 - 30° C) |
| Surface Temp. | 50 - 150 ° F (10 - 66° C) |
| Drum Temp: Storage | 60 - 80° F (15 - 26° C) |

2:1 transfer pumps are recommended for material transfer from container to the proportioner.

CAUTION: Extreme care must be taken when removing and reinstalling drum transfer pumps so as NOT to reverse the "A" and "B" components.

Do not recirculate or mix other suppliers' "A" or "B" component into **Eterna Foam** containers. The plural component proportioner must be capable of supplying each component within +/- 2% of the desired 1:1 mixing ratio by volume.

Eterna Foam should be applied in lifts or passes of no less than 1.0 inch and no more than 2.0 inches thickness per pass or lift. Minimal passes or reduced thickness will result in elevated density and may not cure properly, reducing the physical performance properties of the system. Applications of greater than 2.0 inches will result in reduced density and physical properties and may also create scorching of the foam as a result of the exothermic reaction, both of which will reduce the physical performance characteristics of the foam.





CREDENTIALS/CERTIFICATIONS*

**Applications filed and approvals in-process*

- ICC ESR-
- Underwriters Laboratories Inc. File R
- ASTM E-84 @ 4": Flame Spread Index ≤ 10 Smoke Development ≥ 500
- California Bureau Of Home Furnishings and Thermal Insulation Reg. NO. CA-T

SAFETY AND HANDLING

Respiratory protection is **MANDATORY!** Contact **Tropical Roofing** for a copy of the Model Respiratory Protection Program developed by API or visit their website at www.polyurethane.org. Persons with known respiratory allergies should avoid exposure to the "A" component. The "A" component contains reactive isocyanate groups while the "B" component contains amine and/or catalysts with blowing agents. Both materials must be handled and used with adequate ventilation. The vapors must not exceed the TLV (0.02 parts per million) for isocyanates. Avoid breathing vapors. Wear a NIOSH approved respirator. If inhalation of vapors occur, remove victim from contaminated area and administer oxygen if breathing is difficult.

Call a physician immediately. Avoid contact with skin, eyes, and clothing. Open containers carefully, allowing any pressure to be relieved slowly and safely. Wear chemical safety goggles and rubber gloves when handling or working with these materials. In case of eye contact, immediately flush with large amounts of water for at least 15 minutes. In case of skin contact, wash area with soap and water. Wash clothes before reuse.

IN CASE OF SPILLS OR LEAKS

- Utilize appropriate personal protective equipment
- Ventilate area to remove vapors
- Contain and cover spilled material with a loose, absorbent material such as oil-dry, vermiculite, sawdust or Fuller's earth
- Shovel absorbent waste material into proper waste containers
- Wash the contaminated areas thoroughly with hot, soapy water
- Report sizeable spills to proper environmental agencies

IN CASE OF FIRE

Extinguishing Media: Water, Carbon Dioxide, Foam or Dry Powder

SHIPPING INFORMATION

| CONTAINER SIZE | CLASS |
|----------------|-------|
| 5 Gal. | 55 |
| 50 Gal. | 5 |

KEEP OUT OF REACH OF CHILDREN. Close container after each use. DO NOT TAKE INTERNALLY! If swallowed, do not induce vomiting. CALL PHYSICIAN IMMEDIATELY!

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