

DESCRIPTION

ECO-RISE™ 3.0 (25S) is a two component, closed cell, rigid polyurethane system for pour foam applications. This foam is low viscosity and is specifically designed for pour operations to produce rigid foam for concrete slab and road jacking and stabilization. This product has excellent processing characteristics. Good dimensional stability and adhesion to substrate. **ECO-RISE™ (25S)** is formulated using only virgin Polyether polyols enhancing its hydrolytic stability characteristics.

FEATURES

- Liquid components can be shipped non-hazardous by OSHA Hazard Communication Standard (29 CFR 1910.1200).
- No dangerous heavy metal catalyst (such as lead or mercury).
- No ozone depleting products (ODP).
- No bromine or other halogenated components.
- No formaldehyde components.
- Mildew, bacteria, and fungus resistant.
- Contains renewable resource components.
- Considered safe for burial and landfill disposal.
- Compliant with USDA/FDA requirements for incidental food contact.

RECOMMENDED USES

- Molding
- Walk in coolers
- Where medium density, pour in place system is required.

CONTAINER SIZES

This product sold in standard 100 gallon drum and 500 gallon tote sets. Material containers are translucent, allowing applicators to view fluid levels. Available in other container sizes, contact sales representative for further information. Non-standard containers may require a longer lead time.

REACTIVITY PROFILE @ 77°F (25°C)

Cream Time	25 sec.
Rise Time	130 sec.
Tack Free Time	150 sec

The reactivity profile of the foam can be varied as needed. The samples for tests were poured with Gusmer 20/35 @ 1200 psi dynamic pressure. Primary and hose heat @ 125°F (52°C). Graco AP Fusion gun with AR 37/37 module with pour foam adaptor.

TYPICAL PHYSICAL PROPERTIES

Viscosity @ 77°F (25°C)	"A" 200 ± 50 cps "B" 700 ± 50 cps
Specific Gravity @ 25°	"A" 1.24 g/ml "B" 1.25 g/ml
Mixing ratio, % by weight	"A" 50 "B" 50
Color	"A" Amber "B" Light Yellow
Storage Temperature	60° - 90°F (15° - 32°C)
Shelf Life (unopened)	12 months
Core Density ASTM D1622	3.007 lbs./ft ³
Closed Cell Content ASTM D6226-05	96.8%
Water Absorption ASTM D2842-10	1.21%
Compressive Properties ASTM D1621-10 Cross Head Speed 0.11"/min.	25.9 ± 2.7 psi Max Stress Average 749 ± 108 psi Mod of Elasticity Average 24.7 ± 2.2 psi Yield @ 10% Extension
Shear Properties ASTM C273-11 Cross Head Speed 0.050"/min.	1020 ± 22.5 lbs. Max Load Average 6692 ± 160 psi Mod of Elasticity Average 57.4 ± 1.4 psi Stress @ Break Average 5.47 ± 12 psi Yield @ 20% Off
* When continuously stored and maintained at above temperatures	

STORAGE & HANDLING

Maintain storage area for materials between 60 - 90°F at all times. Open drums with caution to prevent loss of blowing agent and potential personal chemical contamination.

PROCESSING EQUIPMENT

Standard 1:1 ratio, heated plural component equipment developing a minimum of 1200 psi (8.34 mpa) dynamic pressure with heating capabilities to 150°F (66°C) will adequately pour this product. These include Graco A-20, PMC PA-25, Gusmer FF-1600 or equivalent. Graco Air Purge Fusion, GX-7-400, Probler P2, or MP Fusion. Pre-heater temperature should be a minimum of 120° - 140°F (49° - 60°C).

Hose temperature should be 120° - 140°F (49° - 60°C). A hose thermometer inserted under the insulation near the gun should read a minimum of 110°F (43°C).

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

Substrate temperature should be a minimum of 50°F (10°C).

LIMITATIONS

This product is for professional use only.

Minimum material/container temperature for pour application is 70°F (21°C).

This product has not been tested for flame spread or smoke development.

Not to be installed within two inches (2") of heat emitting devices, where temperatures is in excess of two hundred degrees (200°F).

GENERAL SAFETY, TOXICITY, & HEALTH

Safety Data Sheets are available for this coating material. Any individual who may come in contact with these products should read and understand the S.D.S. **CHEMTREC EMERGENCY NUMBER 1-800-424-9300**

WARNING: Contact with skin or inhalation of vapors may cause an allergic reaction. Causes eye damage/irritation. Avoid eye contact with liquid or spray mist. Hypersensitive persons should wear protective clothes, gloves and use protective cream on face, hands and other exposed areas.

CONTAMINATION: Avoid moisture contamination in containers. Containers should not be resealed if contamination is suspected, carbon dioxide created pressure can develop. Do not attempt to use contaminated material.

EYE PROTECTION: Safety eye wear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid

splashes, mists, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield.

SKIN PROTECTION: Personal protective equipment for the body should be selected based on the task being performed; the risks involved, and should be approved by an industrial hygiene specialist before handling this product. Chemical resistant gloves are recommended. Cover as much of the exposed skin area as possible with appropriate clothing.

RESPIRATORY PROTECTION: Respiratory protection is **MANDATORY!** The vapors must not exceed the TLV (0.02 parts per million). Harmful if inhaled and may cause allergy or asthma symptoms. Use a respirator approved for isocyanates and organic vapors. If you are not sure, or not able to monitor levels, or if you are spraying in an enclosed/ indoor area, use MSHA/NIOSH approved supplied air respirator. Consider the application and environmental concentrations when deciding if additional protective measures are necessary.

INGESTION: Do not take internally. It is believed that ingestion of polymeric isocyanates would not be fatal to humans, but may cause inflammation of mouth and stomach tissue.

FIRE HAZARD: Fires involving "A" or "B" components may be extinguished with carbon dioxide, dry chemical, or inert gas. Application of large quantities of water spray is recommended for spill fires. Personnel fighting the fire must be equipped with NIOSH approved self contained breathing apparatus.

Cleaning of Spills or Leakage

Cover the area with an inert absorbent material such as clay or vermiculite and transfer to metal waste containers. Saturate with water but do not seal the container with the isocyanates and water mixture. The area should then be flushed with large amounts of water, in the case of the "B" component, or 5% aqueous ammonia, in the case of the "A" component. Dispose of these materials in compliance with federal, state and local regulations.

Caution: Isocyanates will react with water and generate carbon dioxide. This could result in rupture of closed containers.

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