



ECO-RISE™ Synergy

ENVIRONMENTALLY FRIENDLY GEOTECHNICAL FOAM
CONCRETE SLAB JACKING AND CAVITY FILL POUR FOAM

90F - PRELIMINARY

DESCRIPTION

ECO-RISE™ (2.0 lb - 6.0 lb density) is a two component, closed cell, rigid structural polyurethane foam system engineered specifically to be able to be processed through SPI LPG and HVLP equipment. This foam is low viscosity and is specifically designed to produce rigid foam for concrete slab lifting, road lifting, and soil stabilization. This product has excellent processing characteristics, dimensional stability, and adhesion to substrate. ECO-RISE™ is formulated using only virgin Polyether polyols enhancing its hydrolytic stability characteristics.

RECOMMENDED USES

- Concrete slab, road, and runway lifting
- Stabilize unconsolidated soil
- Cavity/void fill
- Concrete slab stabilization

OTHER USES

- Geo-Technical applications
- Ditch damming
- Trench breakers
- Mine and tunnel decommissioning
- Pipe, tank, and well decommissioning
- Pole setting in lieu of concrete

FEATURES

- Minimal heat generation during application allows for thick lifts. *Contact SPI Technical Support for recommendations.*
- No toxic heavy metal catalysts.
- 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.
- Zero VOC and solvent free.
- Typical return to service time is minutes not hours.

DENSITIES & REACTIVITIES AVAILABLE

The choice is yours. Choose your density and choose your reactivity.

| Densities Available lbs./cu. ft. | Free Rise Core (FRC) ASTM D1622/D1622M-14 | Typical In Place (Constrained) *Density estimated |
|-------------------------------------|---|--|
| 2.0 lb. | 1.9 - 2.2 | 2.2 - 4.0 |
| 2.5 lb. | 2.4 - 2.7 | 2.8 - 4.5 |
| 3.0 lb. | 2.9 - 3.2 | 3.2 - 5.5 |
| 4.0 lb. | 3.9 - 4.2 | 4.2 - 6.5 |
| 5.0 lb. | 4.9 - 5.2 | 5.2 - 8.0 |
| 6.0 lb. | 5.9 - 6.2 | 8.0 - 10.0 |

Reactivities Available @ 90°F (32°C)(sec)

| CREAM (sec) | RISE (sec) |
|-------------|------------|
| 2.0 | 7 |
| 15.0 | 90 |
| 22.0 | 105 |

WHEN PLACING YOUR ORDER, PLEASE DENOTE THE REQUIRED DENSITY (**RED**) FOLLOWED BY THE REACTIVITY CREAM (**GREEN**).

Ordering Example: ECO-RISE™ Synergy **2.5** - lb. **15.0** sec.

Note: Other densities and reactivities available upon request.

*In Place density is dependent on several variables including lift thickness, processing parameters and surface temperature.

The samples for above tests were poured with a SPI LPG @ 100 - 200 psi @ 90°F (32°C). SPI Lock N' Load gun.

TYPICAL LIQUID PROPERTIES

| | |
|------------------------------------|--|
| Mixing ratio, % by volume | "A" 50 "B" 50 |
| Weight per gallon (approx.) | "A" 10.3 lbs. (4.67 kg) "B" 8.8 - 9.0 lbs. (4.0 - 4.08 kg) |
| Viscosity @ 77°F (25°C) | "A" 200 ± 50 mPa.s "B" 600 ± 100 mPa.s |
| Color | "A" Amber "B" Light Yellow |
| Storage Temperature | 60° - 90°F (15° - 32°C) |
| Shelf Life (unopened) | * 12 months |

*When continuously stored and maintained at above temperatures.

TYPICAL PHYSICAL PROPERTIES

| | |
|--|---------------------|
| Compressive Strength ASTM D1621 | 2 lb. 20 - 25 psi |
| | 2.5 lb. 25 - 30 psi |
| | 3 lb. 40 - 45 psi |
| | 4 lb. 70 - 75 psi |
| | 5 lb. 100 - 105 psi |
| | 6 lb. 120 - 130 psi |
| | 7 lb. 165 - 175 psi |
| | 8 lb. 210 - 220 psi |
| 10 lb. 285 - 310 psi | |
| Closed Cell Content | > 90% |

*In Place density is dependent on several variables including spray lift thickness, processing parameters and surface temperature.

CONTAINER SIZES

This product sold in standard 30 gallon kit, 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.

STORAGE & HANDLING

Maintain storage area for materials between 60 - 90°F at all times.

LIMITATIONS

This product is for professional use only.

Minimum material/container temperature for 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).

Maximum service temperature; constant 200°F (93°C), intermittent 250°F (121°C).

PROCESSING EQUIPMENT

LPG™ PROPORTIONER & LOCK N LOAD™ GUN

Portable Polyurea Coating & Polyurethane Foam Proportioner

True Portability
& Product Versatility

**Lightweight 76 lbs.
(18" H x 18" W x 10" D)**

Low Pressure, Low Heat

**Uses 110 Volt
Single Phase 15-AMP
Standard Electric Wall Outlet Power**

Minimal Field Maintenance

Simple to Operate

Minimize Investment,
Maximize Profit!

Low Market Entry Cost

Limited Warranty Available

**Training and 24/7
Technical Support**



CART OPTIONAL



LOCK N LOAD™ GUN

The **LOCK N LOAD™** Gun (with Modular On-Off, Pressure and Output Control) is available with the following quick change attachment:

NUCLEATED SPRAY/POUR FOAM

Synergy Series Polyurethane Foam and Polyurea Elastomers
Requires auxiliary air compressor



SPI ALSO HAS HVLP™ PROPORTIONERS (POUR UP TO 6 GPM)

**4 GPM
Proportioner
(SHOWN)**

High Volume
Low Pressure

**Ambient
Temperature
Processing**



DID YOU KNOW??

SPI manufactures a complete portfolio of rigid spray and pour polyurethane foam components in densities ranging from .5 to 45 lbs per cu. ft.

INCLUDING

- » CLASS 1 FLAME AND SMOKE
- » IGNITION BARRIER RATED
- » ROOFING & STRUCTURAL
- » DITCH BREAK FOAMS
- » COAST GUARD COMPLIANT FLOTATION
- » TOOLING, MOLDING, and TAXIDERMY
- » FAST SHIPPING AVAILABLE FROM OUR MANUFACTURING FACILITIES IN ANCHORAGE, CHICAGO, DALLAS & SEATTLE



All of the above foams and **ECO-RISE** can also be poured and sprayed with the SPI portable low pressure LPG proportioner.

[<< Click for video](#)

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 INT'L 1-703-527-3887.**

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: Harmful if inhaled and may cause allergy or asthma symptoms. Ensure adequate ventilation. If the respirator is the sole means of protection, use a full-face supplied respirator. Use respirators and components tested and approved under appropriate government standards such as OSHA 29CFR 1910.134, NIOSH (US), or CEN (EU). 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.



SEAMLESS SOLUTIONS FOR OVER 40 YEARS



WARRANTY & DISCLAIMER

Specialty Products, Inc. has no role in the manufacture of the finished polymer other than to supply its two components. It is vital that the person applying this product understands the product, and is fully trained and certified in the use of plural-component equipment. Specialty Products, Inc., an Alaska corporation, warrants only that the two components of this product shall conform to the technical specifications published in the product literature. The quality and fitness of the product are dependent upon the proper mixture and application of the components by the applicator. There are no warranties that extend beyond the description on the face of this instrument. Failure to apply the product within the parameters stated on this document shall void the warranty. SPECIALTY PRODUCTS, INC. MAKES NO WARRANTY OF MERCHANTABILITY OF THE PRODUCT OR OF FITNESS OF THE PRODUCT FOR ANY PARTICULAR PURPOSE. Specialty Products, Inc. makes no warranty as to the quality of any product modified, supplemented, tinted, or altered in any way after it leaves the manufacturing plant. Use of this product in a potable water container could be hazardous to health. The liability of Specialty Products, Inc. for any nonconformity of the product to its technical specifications shall be limited to replacement of the product. The sole exclusive remedy of buyer, which is to have Specialty Products, Inc. replace any nonconforming product at no cost to buyer, is conditioned upon buyer notifying Specialty Products, Inc. or its distributor in writing of such defect within thirty days of the discovery of such defect. Specialty Products, Inc. shall not be liable for any direct, incidental, or consequential damages resulting from any breach of warranty. The data presented herein is intended for professional applicators or those persons who purchase or utilize this product in the normal course of their business. The potential user must perform any pertinent tests in order to determine the product's performance and suitability in the intended application, since final determination of fitness of the product for any particular use is the responsibility of the buyer. The aforementioned data on this product is to be used as a guide and is subject to change without notice. The information herein is believed to be reliable, but unknown risks may be present. Specialty Products, Inc. makes no warranties, expressed or implied, including patent warranties or warranties of merchantability or fitness of use, with respect to products or information set forth herein. Nothing contained herein shall constitute permission or recommendation to practice any invention covered by a patent without a license from the owner of the patent. Accordingly, the buyer assumes all risks whatsoever as to the use of these materials and buyer's exclusive remedy as to any breach of warranty, negligence, or other claim shall be limited to the purchase price of the materials. Failure to adhere to any recommended procedures shall relieve Specialty Products, Inc. of all liability with respect to the materials and the use thereof

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Serving the Plural-Component Industry

Product & Equipment Technical Assistance
24 hours - 7 days a week 800 627 0773



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Product/Equipment



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