



SPI ENVELO-SEAL™

ENVIRONMENTALLY FRIENDLY SPRAY FOAM

1.5 - 30 LB CLOSED-CELL ROOFING FOAM INSULATION
PRELIMINARY

DESCRIPTION

SPI ENVELO-SEAL™ 1.5 lb to 30 lb density is a two component rigid polyurethane system for sprayed-in-place applications. This foam is low viscosity and is specifically designed for spray operations to produce a rigid foam for tooling, molds, pipelines, roofs, foundations, fish holds, and other commercial/industrial surfaces.

This product has excellent processing characteristics. Good dimensional stability and adhesion to substrate.

GREEN FEATURES

- No dangerous 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.
- Consider safe for burial and landfill disposal.
- Compliant with USDA/FDA requirements for incidental food contact.

TYPICAL PHYSICAL PROPERTIES

Properties for 3.5 lb. density	
R-Value ASTM C518	5.38 initial 4.25 aged
Core Density (nominal) ASTM D1622	3.5 lbs/ft ³
Color	"A" Amber "B" Clear
Shelf Life Unopened Containers @ 60 - 90°F (15 - 32°C)	* 12 months

* When continuously stored and maintained at above temperatures

PRODUCT REACTIVITY

Cream Time	1.5 - 2.0 sec.
Rise Time	3.0 - 3.5 sec.
Tack Free Time	3.5 - 4.0 sec.
Cure Time	4 hours

Tests may vary depending on type of equipment, equipment settings, and environmental conditions.

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
- » CONCRETE LIFTING/SLAB JACKING FOAMS
- » COAST GUARD COMPLIANT FLOTATION
- » TOOLING, MOLDING, and TAXIDERMY
- » FAST SHIPPING AVAILABLE FROM OUR MANUFACTURING FACILITIES IN ANCHORAGE, CHICAGO, DALLAS & SEATTLE



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PACKAGING

This product sold in standard 100 gallon drum and 500 gallon tote sets. Available in other container sizes, contact sales representative for further information. Non-standard containers may require a longer lead time.

PROCESSING PARAMETERS

PRE-HEATER TEMPERATURE:	"A" and "B" 70 - 90°F
HOSE TEMPERATURE:	"A" and "B" 70 - 90°F
PRESSURES:	50 - 500 psi dynamic
MIX RATIO PARTS:	1 to 1 by volume "A" to "B"
Viscosity at 77°F (25°C):	200 ±50 mPa.s "A" Component
	500 ± 100 mPa.s "B" Component

RECOMMENDED EQUIPMENT & SETTINGS

- Lock 'n Load™ gun with 7" mixer.
- Standard 1:1 ratio, LPG™ equipment developing a minimum of 50 - 500 psi (0.3 - 3.4 mpa).
- Substrate temperature should be a minimum of 50°F (10°C).

PRODUCT LIMITATIONS

- This product is for professional use only.
- This product must be stored at temperatures between 60–90°F (15–32°C).
- Apply product when surface and air temperatures are above 40°F (5°C) and the surface temperature is at least 5°F (3°C) above dew point and rising.
- Liquid temperature in containers during application of product should be 70°F (21°C) minimum, 80°F (27°C) optimum, and 90°F (32°C) maximum.
- Product and hose temperature during application should be 80°F (27°C).
- Avoid moisture contamination in containers. Containers should not be released if contamination is suspected. CO₂ created pressure can develop. Do not attempt to use contaminated material.
- The material supplied is a two component system (Component "A"/Component "B"), which is used to formulate this product. The quality and characteristics of the finished polymer is determined by the mixture and application of the two components.
- Undried air exposed to liquid components will reduce physical properties of the cured coating.

For the most up to date technical data sheet and/or safety data sheet (SDS) visit our website at specialty-products.com.

PER PASS LIMITATIONS

When spraying ENVELO-SEAL™, pass thickness should be limited to 1.5" per pass, for optimal physical properties. If subsequent passes are needed, applicators should wait 10 minutes or longer between passes to allow reaction heat to dissipate. The exotherm reaction can cause temporary substrate thermal rise in excess of 150°F, which may result in substrate thermal expansion. If the substrate then contract when the reaction heat dissipates, substrate deformation can occur.

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. Avoid eye contact with the liquid or spray mist. Hypersensitive persons should wear protective clothes, gloves and use protective cream on face, hands and exposed areas.

CLEAN UP: Use DPM, NMP, and Polyclean.

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.

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.

WARRANTY & DISCLAIMER

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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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