

## DESCRIPTION

**ENVELO-SEAL™ 0.5 OC CL1** is the “B” component of a two-component polyurethane foam insulation system processed at a 1:1 by volume. It has a 0.50 PCF spray in place density. **ENVELO-SEAL™ 0.5 OC CL1** is a water blown hybrid foam insulation system. This product provides superior energy efficiency and air infiltration control. The product can be used in open wall cavities, crawlspaces, perimeter rim joists, cathedral ceilings, and garage ceilings. **ENVELO-SEAL™ 0.5 OC** is designed as a high performance building envelope insulation system for both residential and commercial construction.

## FEATURES

- Contains rapidly renewable resource components.
- Bio-based contents 5% (“B” side).
- Utilizes recycled plastic materials.
- No dangerous heavy metal catalysts (such as lead or mercury).
- No ozone depleting products (ODP).
- No bromine or other halogenated components.
- No formaldehyde components.
- Mildew, bacteria, and fungus resistant.
- Considered safe for burial and landfill disposal.
- Compliant with USDA/FDA requirements for incidental food contact.

## RECOMMENDED USES

- Wall
- Floors
- Ducts
- Unvented & Vented Attics
- Tanks
- Ceilings
- Piping

## 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



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

<< [Click for video](#)

## TYPICAL PHYSICAL PROPERTIES

<b>Sound Transmission Coefficient:</b> <b>ASTM E90</b> <b>ASTM E283</b>	39 75	
<b>Aged R-Value:</b> <b>ASTM C518 75°F (24°C)</b>	3.7 at 1”	
<b>Density:</b> <b>ASTM D1622</b>	0.50 PCF at 2 inches	
<b>Open Cell Content:</b> <b>ASTM D6226</b>	>92%	
<b>Fungi Resistance</b> <b>ASTM C1338</b>	No fungi growth	
<b>Bio Based Content</b> <b>ASTM D6866</b>	26%	
<b>Rate of Air Leakage:</b> <b>ASTM E283</b>	0.00022 ft. 3/s. ft <sup>2</sup>	
<b>Dimensional Stability:</b> <b>ASTM D2126</b> (% volume change)	-20°F	-0.1
	158°F 100% R.T. Humidity	-0.40
	158°F Dry	-0.20
<b>Shelf Life:</b> <b>stored in original unopened containers between 50° - 80°F (10° - 27°C)</b>	12 months	

These items are provided as general information only. They are approximate values and are not part of the product specifications.

## CONTAINER SIZES

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.



## SURFACE BURNING CHARACTERISTICS

<b>ASTM E84</b>	CLASS I
<b>Flame Spread</b>	< 15
<b>Smoke Development</b>	< 300
<b>Nominal Thickness (inches)</b>	5.50
NOTE: The flame spread rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.	

## PROCESSING PARAMETERS & PHYSICAL CHARACTERISTICS

<b>Pre-Heater/Hose Temperature:</b>	"A" and "B" ± 125°F (52°C) ±5°
<b>Pressures:</b>	1100 - 1400 psi dynamic, at gun
<b>Mix Ratio Parts:</b>	1:1 by volume "A" to "B"
<b>Substrate/Air Temperature:</b>	17°F (-8°C) min 65°F (18°C) max
<b>Thickness Per Lift:</b>	1" - 5" lifts

These settings will ensure thorough mixing in the spray gun mix chamber in typical applications. Optimum hose pressure and temperature may vary as a function of the type of equipment, ambient, and substrate conditions, and the specific application. It is the responsibility of the applicator to properly interpret equipment technical literature, particularly information that relates acceptable combinations of gun chamber size, proportioner output, and material pressures. The relationship between proper chamber size and the capacity of the proportioner pre-heat is critical.

## REACTIVITY PROFILE @ 75°F (24°C)

<b>Cream Time</b>	3.0 sec.
<b>Rise Time</b>	7 sec.
<b>Tack Free Time</b>	7 sec.

## THERMAL BARRIER

IRC and IBC codes require that SPF be separated from the interior of a building by a thermal barrier, which is applied over SPF to slow thermal rise, and delay its involvement in a fire. A building code definition of an approved thermal barrier is one that is equal in fire resistance to ½ inch gypsum board. Thermal barriers limit the temperature rise of the underlying SPF to not more than 250°F (121°C) after 15 minutes of fire exposure in compliance with ASTM-E119 (Test Methods for Fire Tests of Building Construction Materials). Thermal barriers meeting this criteria are termed a "15 minute thermal barrier" or classified as having an "index of 15". Specialty Products, Inc. recommends that an approved thermal barrier separate ENVELO-SEAL™ 0.5 OC CL1 foam from the building interior unless waived by a local building code official.

## THERMAL PERFORMANCE

THICKNESS (")	R-VALUE (H-FT2-°)/BTU	THICKNESS (")	R-VALUE (H-FT2-°)/BTU
1.0	3.7	7.5	28
2.0	7.5	8.0	30
3.5	13	9.0	33
4.0	15	9.5	35
5.0	19	10.0	37
5.5	20	11.5	43
6.0	22	12.0	44
7.0	26		

## PRODUCT APPLICATION

ENVELO-SEAL™ 0.5 OC CL1 should be applied in 1" to 5" lifts. This procedure is in accordance with the manufacturer's recommendations.

The data presented here should only be used as a guide since the actual foam properties are influenced by the efficiency of the spray gun, component temperatures, foam thickness, and ambient conditions. The user must test and qualify the product. Final determination of suitability is the responsibility of the user.

For most up to date technical data sheet and/or safety data sheet visit our website at [specialty-products.com](http://specialty-products.com).

## IGNITION BARRIER

ENVELO-SEAL™ 0.5 OC CL1 is compliant with NFPA 286 Appendix X without a prescriptive ignition, thermal barrier or intumescent coating.

## FIRST AID

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 eyewear 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.



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### 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. Specialty Products, Inc. does not warrant that this product is suitable for use as a liner for potable water containers. Use of this product in a potable water container could be hazardous to health if it is improperly processed or applied. 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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**Product & Equipment Technical Assistance**  
**24 hours - 7 days a week 800 627 0773**



SPI Website

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