

# ELASTAFLEX<sup>TM</sup> CR CHEMICAL RESISTANT POLYUREA PRELIMINARY

#### DESCRIPTION

ELASTAFLEX<sup>™</sup> CR is specifically created as a secondary containment liner for hydrocarbons including crude oil, diesel fuel, gasoline, and alcohols. This very economical polyurea exhibits very high tensile strength and elongation. ELASTAFLEX<sup>™</sup> CR is a unique blend of aliphatic and aromatic polymer chemistry with greater color/gloss retention and is more UV resistant than aromatic polyureas. Unlike most spray-applied polyureas, ELASTAFLEX<sup>™</sup> CR is available with SPI's cutting-edge ULTRA BOND<sup>™</sup> technology. SPI's advanced ULTRA BOND<sup>™</sup> chemistry is coined "the duct tape molecule". ULTRA BOND<sup>™</sup> has the unique advantage of adhering to most properly prepared organic and inorganic (new and aged) surfaces without requiring a primer. Like duct tape, ELASTAFLEX<sup>™</sup> CR with ULTRA BOND<sup>™</sup> gains adhesion over time.

#### **FEATURES**

- Chemical Resistant.
- Liquid components can be shipped non-hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
- Superior color stability and gloss retention compared to aromatic polyurea elastomers\*.
- Eco-friendly, 100% solids, no solvents, and zero VOCs.
- Extended gel time for better flow-out providing a smooth, more uniform finish.
- High build up to any thickness in one application.
- Compliant with FDA/USDA for incidental food contact.
- ElastaFLEX<sup>™</sup> CR liner is very supple with minimal shrinkage (less than 1% at 7 days).

## **RECOMMENDED USES**

- On geotextile fabric to form a monolithic liner.
- Primary and secondary containment.
- Steel and concrete tanks.
- Barge and ship holds.
- Waste water treatment facilities.
- Chemical transportation.

# **COLORS**

ElastaFLEX<sup>™</sup> CR is available in standard colors (\*White, Sand, Light Grey, Medium Grey, and Black) Custom colors will be quoted upon request.

Note: ElastaFLEX<sup>™</sup> CR is an <u>aromatic</u> polyurea; therefore, as with all aromatics, superficial oxidation will occur. <u>Aliphatic</u> urethane and other suitable topcoats can be used where long-term color stability and increased longevity in full sun exposure are of critical importance.

## PACKAGING

This product sold in standard 110 gallon drum and 550 gallon tote sets. Available in other container sizes, contact sales representative for further information. Non-standard containers may require a longer lead time.

## **DRY PROPERTIES\***

55 mils (1.5 mm)*				
Tensile Strength ASTM D638	± 4000 psi (28 mpa)			
Elongation ASTM D638	± 400%			
Hardness (Shore A) ASTM D2240-81	94 ± 5			
Hardness (Shore D) ASTM D2240-81	43 ± 5			
Service Temperature	-60° - +200°F (-50° - +93°C)			
Abrasion Resistance 1 kg. 1000 rev.	CS-17	14.6 mg lost		
	H-18	88 mg lost		
Mandrel Bend Test ASTM D522-93b	Passed	Mandrel Size 1/4 - 60°F (-51°C)		

\*All cured film properties are approximate since processing parameter, ad-mixture types, and quantities change physical properties of the cured elastomer. All samples for above tests were force cured 48 hours or aged for more than three weeks. Samples tested were neutral (untinted). It is recommended that the user perform their own independent testing.

## **CURING SCHEDULE**

Gel	±6 sec	
Tack Free	± 20 - 30 sec.	
Post Cure**	24 hour	
Recoat	30 min 8 hours	

\*\*Complete polymerization to achieve final strength can take up to several weeks, depending on a variety of conditions or product type. The samples for tests were sprayed with Graco HXP3 @ 2,500 psi (17 mpa) dynamic pressure. Primaries/Hose Heat 170°F (77°C) Graco MP Fusion Gun with 29/29 mixing module and .040 ceramtip.

# WET PROPERTIES

Solids by Volume	100%	
Solids by Weight	100%	
Volatile Organic Compounds	0 lbs./gal (0 g/l)	
Theoretical Coverage DFT	100 sq. ft. @ 16 mils/gal	
Weight per gallon (approx.)	9.21 lbs. (4.17 kg)	
Number of coats	1 - 2	
Mix Ratio (by volume)	1 "A" : 1 "B"	
Viscosity	A 1000 ± 50 cps B: 700 ± 50 cps	
Shelf Life Unopened Containers @ 60 - 90°F (15 - 32°C)	Six Months	

Minimum/maximum material/container temperature to supply proportioner "A" side is 85° - 95°F (29° - 35°C) "B" 70° - 80°F (21° - 27°C).

TEST INFORMATION				
Abrasion Resistance 1 kg.	CS-17	14.6 mg lost		
1000 rev.	H-18	88 mg lost		
Mandrel Bend Test ASTM D522-93b	Passed	Mandrel Size 1/4 - 60°F (-51°C)		

## **MIXING & THINNING**

Thoroughly agitate the "B" components of this product prior to application. Use a SPI folding blade mixer, or equivalent equipment approved by SPI. Install mixer though the extra 2" bung hole provided on all "B" drums. Care must be taken not to cross contaminate the individual components with the mixing equipment. Thinning is not required. Using any thinner may adversely affect product performance.

## **GENERAL APPLICATION INSTRUCTIONS**

Apply ELASTAFLEX<sup>™</sup> CR to only clean, dry, sound surfaces, free of loose particles or other foreign matter. A primer may be required, subject to type and/or condition of the substrate. Consult technical service personnel for specific primer recommendations and substrate preparation procedures.

Secondary containment liner application thickness will depend on the reagent contained. Contact your SPI representative for specific recommendations.

It is recommended that ELASTAFLEX<sup>™</sup> CR be sprayed in multi-directional (north-south/east-west) passes to ensure uniform thickness.

The polyol "B" component must be thoroughly power mixed each day, prior to use. Contact a SPI technician regarding proper mixing equipment.

Follow instructions attached to "A" and "B" containers.

## **RECOMMENDED EQUIPMENT SETTINGS**

- Standard 1:1 ratio, heated, plural-component equipment developing a minimum of 2500 psi (8 mpa) dynamic pressure with heating capabilities to 175°F (79°C) will adequately spray this product. These include Graco 20/35, 20/35 Pro, PHX-25, PHX-40, H-3500, HV-20/35, Reactor E-XP1, E-XP2, H-25, H-40, H-XP2, and H-XP3. Gun models include Fusion MP, Gap Pro, Graco Fusion Air Purge, Glass Craft P2, P2 Elite, P2 Elite "C", P3, GX-7 DI, and GX-7-400 gun.
- Pre-heater temperature should be at 160-170°F
- (71-76°C).
- Hose temperature should be at 160-170°F (71-76°C). A hose thermometer inserted under the insulation near the gun should read a minimum of 145-155°F (63-68°C).
- Physical properties will be enhanced when sprayed at higher pressure (3000 psi or more) (21 mpa), utilizing an impingement mix gun such as the MP Fusion or GX7-DI.

## LIMITATIONS

This product is for professional use only.

This product must be stored at temperatures between 60 - 90F(15 - 32C).

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.

Minimum/maximum material/container temperature to supply proportioner "A" side is  $85^{\circ} - 95^{\circ}F$  (29° - 35°C) "B" 70° - 80°F (21° - 27°C).

Note: 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.

Avoid moisture contamination in containers. Containers should not be resealed if contamination is suspected.  $CO_2$  pressure can develop. Do not attempt to use contaminated material.

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

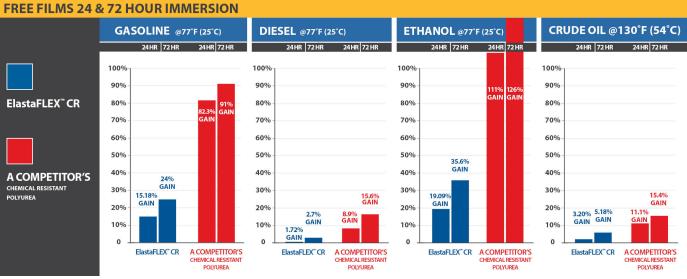
## **WARRANTY & DISCLAIMER**

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

**CHEMICAL RESISTANCE** CHART

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PRELIMINARY





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

## **CONTACT US**

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