

## DESCRIPTION

**ELASTAFLEX™ HP is a unique blend of aliphatic and aromatic polymer chemistry with greater color/gloss retention and is more UV resistant than aromatic polyureas\*. ELASTAFLEX™ HP is a very economical polyurea which exhibits very high tensile strength and elongation. ELASTAFLEX™ HP was stretched to twice the samples original length at 30 times per minute, more than 530,000 times before breaking.**

## FEATURES

- Manufactured with high pigment loading for enhanced color stability and gloss retention.
- Extended gel time for better flow-out providing a smooth, more uniform finish and better substrate penetration.
- Forms a monolithic membrane that can be handled and walked on within minutes from the time it's sprayed.
- ELASTAFLEX™ HP liner is very supple with minimal shrinkage.
- Compliant with FDA/USDA for incidental food contact.
- ASTM E84-97a and complies with NFPA and UBC Class 1 fire rating.
- 100% solids, no solvents, and zero VOCs.

## RECOMMENDED USES

- Liner for concrete tanks, ponds, lagoons, reservoirs, dikes, tunnels, barges, etc.
- Roof coating used over metal, polyurethane foam, concrete, and certain single ply membranes.
- Coating for steel or other substrates exposed to corrosion.
- Encapsulation for EPS or other types of flotation materials.
- Replace or repair failed existing sheet membrane liners, steel tanks, silos, and pipes.
- In between slab waterproofing.
- Encapsulation of asbestos, lead paint, or other dry hazardous materials (Consult SPI).
- Earthen containment used with geotextile membranes.

## COLORS

ELASTAFLEX™ HP is available in White, Manila, and Light Grey as well as our standard colors Sand, Medium Grey, and Black. Custom colors available upon request. Aluminized ELASTAFLEX™ HP is also available under the name ElastaFLEX ARC™. Note: ELASTAFLEX™ HP in continuous full-light exposure, white or very light colors will change over a period of time. Aliphatic urethane and other suitable topcoats can be used where long-term aesthetics are of critical importance.

## DRY PROPERTIES

<b>Service Temperature</b>	-60° - 200°F (-50° - 93°C)
60 mils (1.5 mm)* 3,000 psi (20.85 mpa) dynamic pressure at gun. Graco MP Fusion gun with 29/29 mixing module and 0.04 ceramtip.	
<b>Tensile Strength ASTM D638</b>	± 3,800 psi (26 mpa)
<b>Elongation ASTM D638</b>	± 700%
<b>Hardness (Shore A) ASTM D2240-81</b>	76 ± 5
<b>Hardness (Shore D) ASTM D2240-81</b>	27 ± 5
<b>100% Modulus ASTM D412</b>	650 psi (4 mpa) ± 10
<b>300% Modulus ASTM D412</b>	1,100 psi (8 mpa) ± 20
<b>Tear Resistance ASTM D624</b>	370 PLi (52.53 KN/m) ± 50
60 mils (1.5 mm)* 1,600 psi (11.12 mpa) dynamic pressure at gun. Graco AP Fusion gun with 29/29 mixing module.	
<b>Tensile Strength ASTM D638</b>	± 2,800 psi (19 mpa)
<b>Elongation ASTM D638</b>	± 700%
<b>Hardness (Shore A) ASTM D2240-81</b>	80 ± 5
<b>Hardness (Shore D) ASTM D2240-81</b>	41 ± 5

\*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. It is recommended that the user perform their own independent testing. Samples tested were neutral (untinted). The samples for tests were sprayed with Graco HXP3. Primaries/Hose Heat 170°F (77°C).

## WET PROPERTIES

<b>Solids by Volume</b>	100%
<b>Solids by Weight</b>	100%
<b>Volatile Organic Compounds</b>	0 lbs./gal (0 g/l)
<b>Theoretical Coverage DFT</b>	100 sq. ft. @ 16 mils/gal
<b>Weight per gallon (approx.)</b>	8.7 lbs. (3.94 kg)
<b>Number of coats</b>	1 - 2
<b>Mix Ratio (by volume)</b>	1 "A" : 1 "B"
<b>Viscosity</b>	A: 525 ± 50 cps B: 375 ± 50 cps
<b>Shelf Life Unopened Containers @ 60 - 90°F (15 - 32°C)</b>	Six Months

Minimum/maximum material/container temperature is 70°F (21°C)

## CURING SCHEDULE

<b>Gel</b>	± 10 sec
<b>Tack Free</b>	± 30 sec
<b>Post Cure**</b>	24 hour
<b>Recoat</b>	0 - 12 hours

\*\*Complete polymerization to achieve final strength can take up to several weeks, depending on a variety of conditions or product type.

## TEST INFORMATION

<b>FLAME SPREAD ASTM E108-07a</b>	Class A Passed	
<b>ABRASION RESISTANCE ASTM D4060 1000 g - 1000 cycles</b>	H-18 wheel	110 mg loss
<b>WEATHERABILITY (black) 3000 hours (QUV)</b>	no evidence of failure	
<b>MANDREL BEND ASTM D522-13</b>	1/4" at -60°F Passed	

## MIXING & THINNING

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

Thinning is not required. Using any thinner may adversely affect product performance

## GENERAL APPLICATION INSTRUCTIONS

Apply ELASTAFLEX™ HP only to clean, dry, sound surfaces free of loose particles or other foreign matter. ELASTAFLEX™ HP can be sprayed over a broad range of ambient and substrate temperatures.

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

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

Contact technical service personnel for specific recommendations and pricing. As well as the availability of spray and auxiliary equipment.

## RECOMMENDED EQUIPMENT SETTINGS

- Standard 1:1 ratio, heated, plural-component equipment developing a minimum of 1600 psi (11 mpa) dynamic pressure with heating capabilities to 170°F (77°C) will adequately spray ELASTAFLEX™ HP. 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's 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—90°F (15—30°C).

Liquid temperature in drums during application 70—100°F (21—38°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.

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

Avoid moisture contamination in containers. Containers should not be released if contamination is suspected, CO<sub>2</sub> created pressure can develop. Do not attempt to use contaminated material.

Undried air exposed to liquid components will reduce physical properties of the cured coating.

Note: The material supplied is two components (Component "A"/Component "B") used to formulate this product. This quality and characteristics of the finished polymer is determined by the mixture and application of the two components.

## 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 eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mist or dusts. If contact is possible, the following protection shall be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazard exist, a full-face respirator may be required.

**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 complying with applicable health and safety standards shall be worn when handling this product. Protective gloves are those made from butyl rubber, nitrile rubber or polyvinyl alcohol. Appropriate hazard assessments in conjunction with an evaluation of the protection factors of chemical resistant gloves shall be performed to ensure the protective properties remain intact. It is noted that the time to breakdown of protection factors for different glove manufacturers varies. In the case of mixtures, the protection factors of chemical resistant gloves may be impacted and deteriorate at unpredictable rates without understanding the impact of the substance and the specific protection factors of the chemical resistant gloves.

**RESPIRATORY PROTECTION:** Ensure adequate ventilation. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and the safe working limits of the selected respirator. Ensure the respirator is properly fitted.

**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.



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