



# ELASTAFLEX™ 1.0

ELASTOMERIC MULTI USE POLYUREA

PRELIMINARY

## DESCRIPTION

**ELASTAFLEX™ 1.0 is a very economical self-leveling polyurea is a unique blend of aliphatic and aromatic polymer chemistry with greater color/gloss retention and is more UV resistant than aromatic polyureas\*. ELASTAFLEX™ 1.0 is formulated to be processed through a SPI Synergy proportioner such as the LPG or TI-13D.**

## FEATURES

- 100% solids, no solvents, and no VOCs.
- Extended tack time to allow deep surface penetration.
- Fast-set 1:1 ratio, return to service in hours, not days.
- Compliant with FDA/USDA for incidental food contact.

## RECOMMENDED USES (Nucleated)

### NUCLEATED SPRAY

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

### STATIC MIX POUR

- To fill or repair control joints, random cracks, and shallow spalls on concrete surfaces.

### JOINTFILL COVERAGE RATES: Linear Feet Per Gallon

INCHES	1.0	1.25	1.5	2.0	2.5
1/8"	154'	123'	103'	77'	61'
3/16"	102'	82'	68'	51'	41'
1/4"	77'	62'	51'	38'	30'
3/8"	51'	41'	34'	25'	20'

## COLORS

ELASTAFLEX™ 1.0 is available in SPI standard colors (\*White, Manila, Light Grey) Sand, Medium Grey, and Black. Custom colors will be quoted upon request. Aluminized ELASTAFLEX™ 1.0 is also available under the name ELASTAFLEX™ ARC. High pigment loading available where required at an additional cost.

\*Note: In continuous full-light exposure white or very light colors will change over a period of time. Aliphatic urethane, polyurea, and various aliphatic topcoats must be used when color stability is required.

## DRY PROPERTIES

<b>Service Temperature</b>	-50°F - +200° (-45°C - +93°C)
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### \*CURED FILM PROPERTIES sprayed with low pressure; unheated proportioner

<b>Tensile Strength ASTM D638</b>	± 900 psi (6 mpa)
<b>Elongation ASTM D638</b>	± 400%
<b>Hardness (Shore A) ASTM D2240-81</b>	60 ± 5
<b>Hardness (Shore D) ASTM D2240-81</b>	20 ± 5

Test samples were sprayed through LPG proportioner with SPI LOCK N LOAD gun using the SPI polyurea air nucleation kit.

### \*CURED FILM PROPERTIES poured with low pressure; unheated proportioner

<b>Tensile Strength ASTM D638</b>	± 2,300 psi (16 mpa)
<b>Elongation ASTM D638</b>	± 500%
<b>Hardness (Shore A) ASTM D2240-81</b>	70 ± 5
<b>Hardness (Shore D) ASTM D2240-81</b>	30 ± 5

Test samples were poured through LPG proportioner with Static Mix gun at 150 psi at 70°F (21°C)

\*All cured film properties are approximate since processing parameters, ad-mixture types, and quantities will change physical properties of the cured elastomer. All samples for above tests were un-tinted and force cured or aged for more than three weeks, it is recommended that the user perform their own independent testing.

## PACKAGING

This product sold in standard 10, 30, 110 gallon drum, 500 gallon tote sets, and 1500 ml cartridges.

## 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>	8.55 lbs. (3.87 kg)
<b>Number of coats</b>	1 - 2
<b>Mix Ratio (by volume)</b>	1 "A" : 1 "B"
<b>Viscosity</b>	A: 450 ± 50 cPs B: 775 ± 50 cPs
<b>Shelf Life Unopened Containers @ 60 - 90°F (15 - 32°C)</b>	Six Months

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

## CURING SCHEDULE

<b>Gel</b>	± 25 - 50 sec.
<b>Tack Free</b>	± 1.5 - 2.5 min.
<b>Post Cure**</b>	24 hour
<b>Recoat</b>	0 - 24 hours

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

## MIXING & THINNING

The polyol "B" component must be thoroughly power mixed each day, prior to use. Use a SPI folding blade mixer or equivalent equipment approved by SPI. Install mixer through 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. 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™ 1.0 only to 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.

ELASTAFLEX™ 1.0 can be sprayed over a broad range of ambient and substrate temperatures. Contact technical service personnel for specific recommendations, pricing, and availability of spray and auxiliary equipment.

To reduce the possibility of blisters and blow holes when applying ELASTAFLEX™ 1.0 to cementitious or other porous surfaces:

1. Do not apply on damp or wet substrates.
2. Start spray application after peak heat of the day when surface is cooling.
3. Do not apply on areas in direct sunlight.
4. The temperature of the ELASTAFLEX™ 1.0 material and hose temperature should be approximately the same temperature as the substrate being sprayed. Adhere to instructions on container label.

It is recommended that ELASTAFLEX™ 1.0 be sprayed in multi-directional (north-south/east-west) passes to ensure uniform thickness.

To achieve optimum mix and rise, nucleation at the gun needs to be a minimum of 9 cfm at 90 psi.

To spray ELASTAFLEX™ 1.0 using the nucleating kit processed with a SPI synergy proportioner, the liquid temperature must be a minimum 80°F (21°C) maximum 100°F (38°C) and optimum 90°F (32°C).

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

## SURFACE PREPARATION

It is recommended that oxidized polymeric surfaces be power washed with 2500 - 3500 psi water pressure to achieve maximum adhesion of ELASTAFLEX™ 1.0. If there is a possibility of surface contamination, scrub with a solution of 1/4 tsp. Dawn detergent plus 1 tbsp. of vinegar per 1 gallon of warm water, followed by a thorough water rinse.

SPI Prep Wipe™ applied prior to application of ELASTAFLEX™ 1.0 generally increases adhesion to certain finishes. For applications to concrete refer to SPI Concrete Prep Guide.

## RECOMMENDED EQUIPMENT SETTINGS

- Lock 'n Load™ gun with 7-40 mixer.
- Product and hose temperature "A" component 75°F.
- "B" component 70° - 90°F.
- 50 – 500 psi.
- Standard 1:1 ratio, LPG™ equipment developing a minimum of 150 - 500 psi (.3 - 3.4 mpa) dynamic pressure with heating capabilities to 150°F (66°C) will adequately spray this product. Gun models include Fusion AP and LOCK N LOAD gun. Pre-heater temperature should be a minimum of 140° – 150°F (62° – 68°C).
- Substrate temperature should be a minimum of 50°F (10°C).

## 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).

- 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 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: This product is formulated using two components (Component "A"/Component "B"). The 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 INT'L 1-703-527-7196.**

**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. 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

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