



# Elastuff™ 310 Coating (Part A & B)

Product Data Sheet



## PRODUCT DESCRIPTION

**Elastuff™ 310** Coating (Part A & B) is a two-component high performance, 100% solids elastomeric aromatic polyurea coating. It sets and cures rapidly to form a durable membrane exhibiting a high degree of abrasion and chemical resistance. **Elastuff™ 310** Coating was formulated to achieve an optimum balance of physical properties, including outstanding tensile strength, tear strength, impact resistance and elongation. Its high durometer finish also exhibits excellent thermal stability and good UV resistance.

**Elastuff™ 310** Coating is a 1:1 ratio, thermosetting coating, providing a durable, highly elastomeric film with good chemical resistance to a wide range of acids and bases. It also exhibits excellent hydrolytic stability to withstand a wide range of temperature extremes, in dry or aqueous environments. Because of its rapid gel time, **Elastuff™ 310** Coating can be applied in high humidity conditions or on substrates with relatively high moisture content without fear of blistering or film cellularity common with many coatings systems.

## PACKAGING & SHELF LIFE

Part A	Part B
5 gallon (18.9 liter) pail	5 gallon (18.9 liter) pail
55 gallon (208 liter) drum	55 gallon (208 liter) drum

Shelf life 12 months if unopened containers stored between 50°F and 100°F (10°C and 38°C). Do not open containers until ready to use the material.

**Elastuff™ 310** Coating is a two-component, fast cure, 1:1 ratio material.

## BASIC USES & ADVANTAGES

Elastuff™ 310 Coating was especially developed for providing a durable, waterproof membrane over primed metal, concrete, wood, fiberglass, geotextile fabric and foam substrates (EPS, isocyanurate or polyurethane). It provides a high degree of corrosion protection, as well as chemical, abrasion and impact resistance over vertical and horizontal substrates. A UL 790 Class A fire resistant version is also available for roofing applications.

Elastuff™ 310 Coating is primarily used in below-grade or non-UV exposure applications. For increased color stability, Elastuff™ 310 Coating is available in an aluminized version. It can also be coated with an approved aliphatic, UV stable finish, such as Elastuff™ 103 Roof Coating.

Elastuff™ 310 Coating can be used wherever a resilient, abrasion resistant membrane is required, and is ideally suited for bridge deck encapsulation. It is able to withstand the application of the hot asphalt driving surface, providing protection for the concrete substructure below. It can also be used for below grade waterproofing of foundation walls, inter-slab membraning, secondary containment, truck beads, planter boxes, waste/water treatment, cooling towers, geotextile fabric systems, manhole & sewer lining, EPS or ISO foam stock, and many other waterproofing applications.

## PHYSICAL PROPERTIES

ELASTUFF™ 310 COATING	
Mixing Ratio	1 part A to 1 Part B by volume (1A:1B)
Solids by Weight	100% [ASTM D1644]
Solids by Volume	100% [ASTM D2697]
Weight per Gallon	Part A = 9.4 lbs (4.3 kg) Part B = 8.8 lbs (4.0 kg)
Gel Time	15 seconds @ 75°F (24°C), 50% RH
Tack Free Time	<10 minutes @ 75°F (24°C), 50% RH
Cure Time	75% @ 24 hours [ASTM D1640]
Ultimate Tensile Strength	2,280 psi (± 100) (15.7 MPa) @ 75°F (24°C) [ASTM D412]
Elongation at Break	410% (± 50) @ 75°F (24°C) [ASTM D412]
Tear Strength	345 pli (± 50) (58 Kn/m) [ASTM D1004]
Hardness	75-80 Shore A, 35-40 Shore D [ASTM D2240]
Abrasion Resistance	0.60 mg loss w/CS17 wheels & 80 gm weights at 1,000 revolutions on Taber Abraser [ASTM D4060]

Impact Resistance	Passes 160 Inch-Pounds direct and inverse [ASTM D2794]
Adhesion	Concrete: 460 psi (± 50) (3.2 kPa), adhesive failure Steel: 940 psi (± 50) (6.5 kPa), adhesive failure [ASTM D4541]
Water Absorption	<4% after 7 days immersion [ASTM D570]
High Temperature Stability	No age hardening or slump
Cold Temperature Flexibility	Passes 180°, 1/4" mandrel bend at -4°F (-20°C) [ASTM D522]
Cold Temperature Crack Bridging	Passes 10 cycles with no cracking or loss of adhesion [ASTM C836]
VOC	<25 g/L
Temperature Limits for Normal Service Conditions	-30°F to 220°F (-22°C to 104°C)
Standard Color	Standard Buff or Dark Gray. Limited selection of custom colors is available to meet specific project requirements.

## APPLICATION INSTRUCTIONS

**Mixing:** Mix each component prior to use using a mixer with a blade capable of uniformly mixing the entire container. Once mixed, use drum mixers or recirculation to maintain a homogenous consistency.

**Surface Preparation:** **Elastuff™ 310** Coating shall be applied to previously prepared and/or primed substrates. Concrete and wood are typically primed using UniTile LV Sealer, while metal surfaces are primed with Lock-Down Primer. Both primers can be applied at full strength, however, thinning is recommended for increased "wetting"

capability over most substrates. Thin UniTile LV Sealer up to 100% and thin Lock-Down Primer up to 50% by volume using Methyl Ethyl Ketone (MEK), Xylol or Acetone. Apply reduced primer at the rate of 250 to 300 ft<sup>2</sup> per gallon (6.1 to 7.3 m<sup>2</sup>/l) for a minimum thickness of 1.0 to 1.5 dry mils (25 to 38 microns). Refer to separate literature entitled Elastuff™ Surface Preparation or individual primer technical data sheets for detailed information. **Elastuff™ 310** Coating is applied using 1:1 ratio plural component airless spray equipment, of which there are several suitable types and manufacturers.

GAF Liquid-Applied

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For technical, system, and warranty information, visit [gaf.com](http://gaf.com) or call 1-800-766-3411.

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## APPLICATION INSTRUCTIONS, CONT'D

Application: **Elastuff™ 310** Coating is applied using heated plural-component equipment, enabling fast, high film build without solvent entrapment. All prep work, including treatment of cracks, surface repairs, etc. must have been completed in accordance with GAF's published recommendations. Do not apply **Elastuff™ 310** Coating when ambient temperature is below 40°F (4°C) or above 100°F (38°C) or if rain is anticipated within 1 hour.

Coverage rates and thicknesses are determined by specific project requirements. The versatility of **Elastuff™ 310** Coating allows the specifier to solve a multitude of protection problems utilizing one coating system at a wide range of dry film thicknesses. Contact GAF's Technical Service Department for specific project recommendations.

**Elastuff™ 310** Coating applied at the coverage rate of 1 gallon per 100 ft<sup>2</sup> (.4 l/m<sup>2</sup>) will theoretically yield 16.0 dry mils (406 microns). The following dry film thicknesses are provided for guideline use only for typical applications:

- **Light Abrasion – Dry or Immersion**  
32 to 40 mils (813 to 1,016 microns)  
**Medium Abrasion – Dry or Immersion**  
45 to 60 mils (1,143 to 1,524 microns)
- **Heavy Abrasion – Dry or Immersion**  
65 to 120+ mils (1,651 to 3,048+ microns)

**Elastuff™ 310** Coating is capable of rapid, high film build utilizing multiple-pass application technique. Most required thicknesses can be achieved in one or two applications using this method. Ultra-high film builds may require three or more coats. The number of coats required to achieve the specified thickness will vary depending on application method, jobsite and ambient conditions. Allow each coat to dry tack free prior to applying an additional coat. This will normally require less than 5 minutes at 75°F (24°C).

All surfaces must be uniformly coated and free of voids, pinholes or blisters. When applying **Elastuff™ 310** Coating

over rough concrete, or concrete exhibiting "bug holes", the surface should be scrape-troweled using polymer-modified cements, epoxy mastic, or equivalent.

**Elastuff™ 310** Coating is self-flashing at natural termination points such as expansion joints, corners, edges, counter-flashings, tank wall caps, etc. Coated areas that do not tie into a natural termination must be sawcut around the perimeter to a minimum width and depth of 1/4" (6 mm). The coating shall then be applied so that it flows into and terminates at the saw cut. Tape off the adjacent edge of the saw cut to eliminate overspray and create a clean finish edge.

The **Elastuff™ 310** Coating installation shall be inspected as soon as practical to ensure that all surfaces have been uniformly coated and are free from holidays, bug-holes, blisters and thin areas. Any deficient areas should be resprayed within 48 hours of initial application.

Repairs to the coating membrane can be made by first roughening the surface by mechanically abrading with a wire wheel, wire brush, coarse sandpaper, or other similar means in order to create a mechanical bond. Solvent wipe the roughened surface with M.E.K., Xylol or Acetone to remove all dust and other contaminants, and to soften the existing coating surface. Apply multiple coats of **Elastuff™ 310** Coating until the repaired area is equal to or greater than the existing film thickness, tapering edges of the repair material over the edges of the existing membrane.

Topcoat Application: **Elastuff™ 310** Coating is designed as a functional coating system and will lose some sheen and chalk slightly under extended exterior exposure. It is recommended that **Elastuff™ 310** Coating be topcoated when subject to severe UV exposure, or in areas where aesthetics are of prime importance. **Elastuff™ 103** is typically used as a top coat. Contact GAF's Technical Service Department for recommendations.

## LIMITATIONS & PRECAUTIONS

**Elastuff™ 310** Coating components are affected by moisture prior to catalyzation and must be protected from moisture contamination. After opening and if all components are not used, purge containers with nitrogen or dry

air and tightly seal. Keep all containers tightly closed during storage. Although **Elastuff™ 310** Coating is not affected by the presence of slight moisture, surfaces should be dry for best results.

## SAFETY & HANDLING

Use only in a well ventilated area. Avoid breathing of vapor or spray mist. For exterior applications, approved MSHA/NIOSH chemical respirator must be worn by applicator and personnel in vicinity of application. If used indoors, air line masks or positive pressure masks must be worn. Avoid contact with eyes and skin. For additional information on safety requirements, refer to OSHA guidelines and product Safety Data Sheet (SDS).

## CLEAN UP

Clean equipment with Methylene Chloride or M.E.K. Do not leave Methylene Chloride in fluid hoses or pumps for prolonged periods. It can cause swelling and deterioration of hoses and corrosion in the pump.

See applicable warranties and guarantees for complete coverage and restrictions.

### GAF

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