



Elastuff™ 300 Coating (Part A & B)

Product Data Sheet



PRODUCT DESCRIPTION

Elastuff™ 300 Coating is a premium performance, 100% solids elastomeric polyurea manufactured using pure aromatic isocyanate resins, reacted with amine pre-polymers. It sets and cures rapidly to form a highly durable membrane exhibiting excellent abrasion and chemical resistance. Elastuff™ 300 Coating was formulated to achieve an optimum balance of physical properties, including exceptional tensile strength, tear strength, impact resistance and elongation. Its high durometer finish also exhibits outstanding thermal stability and good UV resistance. Elastuff™ 300 Coating is applied using heated plural-component equipment, enabling fast, high film build without solvent entrapment.

Elastuff™ 300 Coating is a 1:1 ratio, highly crosslinked aromatic coating, providing a dense, tight film with excellent 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™ 300 Coating can be applied in high humidity 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™ 300 Coating is a two-component, fast cure, 1:1 ratio material.

GAF Liquid-Applied

January 2016, supercedes May 2009

For technical, system, and warranty information, visit gaf.com or call 1-800-766-3411.

BASIC USES & ADVANTAGES

Elastuff™ 300 Coating was especially developed for providing waterproofing, corrosion protection, chemical resistance, and/or abrasion and impact resistance over a wide variety of vertical and horizontal substrates. It can be used over primed steel, concrete, wood, fiberglass, geotextile fabric and foam substrates.

Elastuff™ 300 Coating can be applied with a stipple finish for non-skid properties. In areas where color stability is of primary importance, it should be topcoated with an approved UV stable, aliphatic coating such as Elastuff™ 103 Roof Coating.

Elastuff™ 300 Coating can be used wherever a tough, abrasion resistant finish is desired, including secondary containment, railcar lining, traffic deck protection, cooling towers, pipes & pilings, geotextile fabric, EPS or ISO foam stock, oil platforms, helicopter landing pads, hydro-bins, manhole & sewer rehabilitation and lining, sand/salt trucks, ore hoppers, truck beds, processing tanks and industrial floors.

PHYSICAL PROPERTIES

ELASTUFF™ 300 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 = 8.6 lbs (3.9 kg)
Gel Time	10 seconds @ 75°F (24°C), 50% RH
Tack Free Time	<5 minutes @ 75°F (24°C), 50% RH
Cure Time	90% @ 24 hours [ASTM D1640]
Ultimate Tensile Strength	3,150 psi (± 100) [21.6 MPa] @ 75°F (24°C) [ASTM D412]
Elongation at Break	420% (± 50) @ 75°F (24°C) [ASTM D412]
Tear Strength	525 pli (± 50) (88 Kn/m) [ASTM D1004]
Hardness	90-95 Shore A, 45-50 Shore D [ASTM D2240]
Abrasion Resistance	0.08 mgs loss w/H-10 Wheels using 1,000 gm weights at 1,000 revolutions on Taber Abraser [ASTM D4060]

Impact Resistance	Passes 160 Inch-Pounds direct and inverse [ASTM D2794]
Adhesion	Primed Concrete: 900 psi (± 50) [6.2 kPa] Primed Steel: 1,480 psi (± 50) [10.2 kPa] [ASTM D4541]
Water Absorption	<2% after 7 days immersion [ASTM D570]
Permeance	3.1 U.S. Perms @ 39 mils (1 mm) [ASTM D1653]
High Temperature Stability	No age hardening or slump
Cold Temperature Flexibility	Passes 180°, 1/4" mandrel bend at -4°F (-20°C) [ASTM D522]
VOC	0 g/L [calculated]
Temperature Limits for Normal Service Conditions	-30°F to 300+ °F (-22°C to 149°C)
Standard Color	Standard Black; limited selection of custom colors is also 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™ 300 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. Lock-Down Primer can be applied at full strength, however, thinning is recommended for increased "wetting" capability over most substrates. Thin up to 50% by volume using Methyl Ethyl Ketone (MEK), Xylol or Acetone. Apply reduced primer at the rate of 250 to 300 ft² per gallon (6.1

to 7.3 m²/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™ 300 Coating is applied using 1:1 ratio plural component airless spray equipment, of which there are several suitable types and manufacturers.

Application: All preparation work, including treatment of cracks, surface repairs, etc. must have been completed in accordance with GAF's published recommendations. Do not apply Elastuff™ 300 Coating when ambient temperature is below 40°F (4°C) or above 100°F (38°C) or if rain is anticipated within 1/2 hour.

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APPLICATION INSTRUCTIONS, CONT'D

Coverage rates and dry mils are determined by specific project requirements. The versatility of Elastuff™ 300 Coating allows the specifying engineer to solve a multitude of protection problems utilizing, one coating system at a wide range of dry film thickness. Contact GAF Technical Service Department for specific project recommendations.

Elastuff™ 300 Coating applied at the coverage rate of 1 gallon per 100 ft² (.4 l/m²) of the combined Part A and Part B 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™ 300 Coating is capable of rapid, high film build utilizing multiple-pass application technique. Most required film builds can be achieved in one or two applications using this method. Ultra-high film builds may require three or more separate coats. The number of coats required to achieve the specified film thickness will vary depending on application method, jobsite and ambient conditions. Allow each coat of Elastuff™ 300 Coating 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™ 300 Coating over rough textured concrete, or concrete exhibiting “bug holes”, the surface should be scrape-troweled using polymer-modified cements, epoxy mastic, or equivalent.

Elastuff™ 300 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™ 300 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.

Topcoat Application: Elastuff™ 300 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™ 300 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 topcoat. Contact GAF's Technical Service Department for recommendations.

LIMITATIONS & PRECAUTIONS

Elastuff™ 300 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™ 300 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.

GAF

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See applicable warranties and guarantees for complete coverage and restrictions.