



GACOFLEX E5320 2-PART EPOXY PRIMER/FILLER - SPRAY GUIDE

This guide covers handling and airless spray application of GacoFlex E5320 2-Part Epoxy Primer/Filler (1:1 ratio). This class of GacoFlex products polymerizes (cures) through chemical reaction of the mixed components a superior primer that provides mechanical adhesion and may help prevent asphalt bleed-through (with a two coat application) on a wide range of substrates. Airless spray is an effective method of application particularly on large areas and irregular or vertical surfaces. Air-atomized application is not recommended.

Personnel using these products should familiarize themselves with procedures for personal safety, workplace precautions, and equipment operation. Please see Gaco General Instructions GW-1-1 and GW-3-3, and Product Data Sheet, available at www.gaco.com. Refer to manufacturer's instructions for spray equipment operation, maintenance and safety.

A. SAFETY EQUIPMENT AND VENTILATION

Part B contains a polyamide resin that is normally non-sensitizing; however, care should be taken to thoroughly clean with soap and water any skin areas that are contacted by GacoFlex E5320.

If you experience difficulty breathing, leave the area to obtain fresh air. If difficulty continues, seek medical assistance immediately. In case of eye contact, flush immediately with plenty of water for at least 15 minutes and seek medical attention; for skin, wash thoroughly with soap and water.

1.) PROTECTIVE EQUIPMENT

- i. Use supplied air-breathing apparatus with full-face mask or hood during any spray application unless monitoring demonstrates chemical exposure below OSHA permissible limits.
- ii. A properly fitted respirator (NIOSH/MSHA approved) is recommended during spray application.
- iii. Chemical protective clothing
- iv. Chemical protective gloves

2.) INDOOR SPRAYING PRECAUTIONS

- i. Isolate the area to be sprayed from the rest of structure.
- ii. Spray only in well-ventilated areas.
- iii. Explosion-proof equipment, capable of keeping vapor concentration below the LEL, must be used. The environment must be monitored to assure compliance.
- iv. Air from spray area must be exhausted outdoors in a manner that prevents return through windows, doors or intake vents.
- v. Keep spectators and other personnel away from spray area.
- vi. Be sure to take proper precautions to not spray over unprotected energized lighting or electrical outlets. Doing so could be a fire hazard. Electrical wiring and conduit can be sprayed on as long as open energized circuits are protected.

3.) OUTDOOR SPRAYING PRECAUTIONS

- i. Rope off the area within 150 ft (45.72 m) of spray area.
- ii. Seal off ventilation intakes within the affected area.
- iii. Use windbreaks, where necessary to confine spray mist and avoid damage to nearby surfaces due to
- iv. overspray or drift.
- v. Keep spectators and personnel away from spray area.
- vi. Be sure to take proper precautions to not spray over unprotected energized lighting or electrical
- vii. outlets. Doing so could be a fire hazard. Electrical wiring and conduit can be sprayed on as long as
- viii. open energized circuits are protected.

B. STORAGE AND HANDLING

1.) STORAGE

- i. Keep containers tightly closed. Store in a dry, cool place away from heat, sparks, open flames and moisture.
- ii. For cold weather application, keep material stored above 60 °F (15 °C).
- iii. Hot weather application will result in shortened pot life. Store materials out of sun and below 80 °F (26 °C).

2.) HANDLING

- i. Each GacoFlex coating product is unique. Components of various products cannot be intermixed. Separate products at the jobsite to avoid mixing errors.
- ii. Protect from freezing during shipping and storage.

3.) MIXING

- i. GacoFlex E5320 is a two-component material; Part A and Part B must be properly combined prior to application according to the following directions. Stir Part A well and then stir Part B well. Combine equal parts by volume of Part A and Part B and mix together thoroughly. Power mixing is recommended. Ground container and equipment to prevent accumulation of static charge.
- ii. Mix materials in quantities which can be spray-applied within pot life limitations. Pot life is decreased when temperature increases. Refer to Product Data Sheet for specific information.

4.) THINNING

- i. Once Part A and Part B have been combined and thoroughly mixed, if thinning is necessary to extend pot life for spraying, for application at cool temperatures, or to achieve recommended application rates, add 10%-20% clean water to the primer and mix. Do not thin more than 20%.

C. SPRAY EQUIPMENT

Airless spray equipment generates very high fluid pressure. Spray equipment must be properly maintained and operated. Any misuse of spray equipment or accessories (such as over-pressurizing, modified parts, or worn or damaged parts) can result in serious bodily injury, fire, explosion or property damage. Read and follow the equipment manufacturer’s instructions and recommendations.

1.) AIRLESS SPRAY PUMP

- i. Airless spray pump must have 3,000 psi (207 bar) minimum output pressure rating and adequate delivery volume to support the spray tip orifice flow rating. High-pressure airless sprayers with a higher maximum pressure capability will allow the use of spray hose lengths greater than 250 ft (76.2 m).

Electric Airless Sprayers:

Part #	Name	Rated PSI	Rated Bar	GPM	LPM
253958	Graco 390	3300	228	0.47	1.8
805-015	Titan Impact 440	3300	228	0.54	2.0

NOTE: Airless sprayers not listed have not been evaluated. The preceding information can be used as a reference for assembling an alternative equipment system.

2.) AIRLESS SPRAY HOSE

- i. Airless spray hose must be a grounded nylon tube paint hose, rated for use at maximum pressure produced by the spray pump. Use only electrically grounded hose designed for paint and solvent. Never exceed maximum working pressure of hose or fittings.

3.) SPRAY TIP SELECTION

- i. Spray tip selection is based upon the material delivery volume and spray pattern desired.
 - A. The orifice size of a spray tip determines material delivery volume. The fan width of a spray tip determines the pattern size. Recommended tip size is 0.017 in (0.43 mm) with a 517 tip being ideal for spraying roofs.
 - B. Filter screen should be 30 mesh or larger.
 - C. Spray application rate is typically from 200 - 500 ft² / gal (18.6 – 47 m² / 3.8 L), depending on the substrate and specification. Please see Gaco specification for recommended application rates.

D. APPLICATION

1.) CLIMATIC CONDITIONS

DO NOT apply if ambient, material or substrate temperatures are below 50 °F (10 °C).

2.) SPRAYING TECHNIQUE

- i. Hold the spray gun perpendicular to the surface at a distance of 18 - 24 in (457 - 609 mm). While triggering the spray gun, move it at a rate to produce the desired coating wet mil thickness without thin spots or “holidays.” Spray technique should include a “half lap” technique where each spray pass is overlapped 50% for uniform coverage. Check applied film thickness using a wet mil gauge.

- ii. Use the lowest fluid pressure that will provide a uniform spray pattern without fingering. When greater material coverage is desired, use a larger spray tip orifice size instead of increasing pressure. Too high of pressure could cause excessive overspray.
- iii. Spraying must be organized to maintain constant material flow through airless spray hoses. Coating viscosity will increase rapidly in airless spray hoses if the hoses are exposed to direct sun or high temperatures.
- iv. Plan the application sequence to provide for best production and limited down time. Rotate spray mechanics as needed to allow for continuous production. Material must be flushed from equipment when down time exceeds pot life.
- v. Allow a minimum of 2 hours between coats for cure and solvent evaporation. Refer to Product Data Sheet for specific information for specific conditions.

3.) CLEAN-UP

- i. Clean spray equipment with water supplemented with a small amount of vinegar, recirculate through lines and gun until residual coating is removed. Flush with clean water.
- ii. DO NOT leave GacoFlex E5320 product in spray equipment unless actively spraying. Leaving the product in hoses for even short periods of time could cause equipment problems depending on pot life or product. Waiting too long to clean equipment could cause product to gel or become too thick to spray. Pot life is dependent on product, and ambient and product temperatures. Flush sprayer and airless spray hoses during any shutdown period.
- iii. For long-term storage, a final flush with 100% pure mineral spirits is recommended.
- iv. Troubleshooting information presented below applies to all GacoFlex 2-component products. Product Data Sheets and manufacturer’s equipment operation manual should be referred to for additional information.

E. TROUBLESHOOTING

Condition	Areas to Check	Corrective Action
<i>Poor spray pattern</i>	<ul style="list-style-type: none"> • Too large or worn spray tip • Low fluid pressure • Cold material • High viscosity material 	<ul style="list-style-type: none"> • Replace with new or smaller tip • Increase pump pressure • Warm to above 60 °F (16 °C) • Thin up to 20% with clean water.
<i>Pulsating spray pattern</i>	<ul style="list-style-type: none"> • Too large or worn spray tip • Inadequate material supply • Spray pump ball check obstructed • Inadequate compressed air 	<ul style="list-style-type: none"> • Replace with new or smaller tip • Check suction hose/transfer pump • Check and clear • Provide more air or use smaller tip
<i>Sags/runs on vertical</i>	<ul style="list-style-type: none"> • Too much material per coat 	<ul style="list-style-type: none"> • Reduce application rate per coat (more coats may be required)
<i>Foamy or pin holed coating</i>	<ul style="list-style-type: none"> • Wet substrate • High humidity near dew point • Rain/dew on uncured coating 	<ul style="list-style-type: none"> • Wait for surface to dry • Wait for acceptable conditions • Wait for acceptable conditions