

# Application Specification:

**GP-5-FPV** 

Revised: 3/2025

# **Division 07 18 16:**

# GACOPOLY™ FASTPASS THREE-COMPONENT, ALIPHATIC POLYURETHANE ELASTOMERIC COATING SYSTEM FOR VEHICULAR TRAFFIC DECKS

#### **PART 1 - GENERAL**

# 1.1 SUMMARY

- A. This section describes the requirements for installing a liquid applied traffic bearing membrane. This membrane is suitable for heavy duty, waterproof, wear surfaces such as automobile parking decks, traffic ramps, etc. This specification is not intended for use over on grade concrete surface without the use of a moisture mitigating sealer.
- B. This specification is prepared in a brief form so that it can be used verbatim in the waterproofing section. It is necessary only to make the selections indicated to complete it. Gaco General Instructions, which are incorporated by reference, provide specific detailed instructions for the guidance of contractors and inspectors.
- C. For additional information refer to GP-15-INSTR Traffic Deck Instructions, recommendations on substrate inspection, preparation and coating application that are specific to this traffic deck coating system.

#### 1.2 RELATED SECTIONS

A. Cast-In-Place Concrete: Division 03 30 00

B. Flashing and Sheet Metal: Division 07 53 00

C. Drains, Vents, and Penetrations: Division 07 72 00

# 1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's standard submittal package including specification, installation instructions and general information for each waterproofing material.
- B. Applicator Qualifications: Submit current "Licensed Applicator" Certificate from the specified waterproofing manufacturer.
- C. Americans with Disabilities Act (ADA) Recommendations: Prior to installation, submit manufacturer's data indicating that the specified waterproofing application conforms to the provisions of the ADA Accessibility Guidelines as published by the US Access Board, 1331 F St. NW, Suite 1000, Washington, DC 20004-1111.

# 1.4 QUALIFICATIONS

- A. Primary polyurethane elastomeric coating system shall be of:
  - 1. <u>Single manufacturer</u>. Manufacturer shall have a minimum of 10 years' experience in the manufacture of materials of this type.
  - Applicator shall have a minimum of 5 years' experience in the application of waterproofing materials of the type specified. Applicator shall possess a current "Licensed Applicator" Certificate from the specified waterproofing manufacturer.

- B. Pre-Bid Conference: Ten working days prior to the bid opening there is to be a mandatory Pre-Bid Conference. Anyone not attending the Pre-Bid Conference will not be allowed to bid the project. All products considered an equal to the specified product or any changes in the scope of work, installation or specifications must be presented at the Pre-Bid Conference. If a change in the specifications is accepted, it will be considered as an alternate and will be presented as an addendum issued five working days prior to the bid opening. No other changes to specification or bid documents will be accepted.
- C. Materials other than those specified shall be submitted to the architect/owner for approval no later than ten days prior to the bid date. In requesting prior approval, it shall be necessary to submit:
  - 1. A letter of certification, signed by an officer of the manufacturer, stating that the alternative material is equal to or better than the specified product.
  - 2. Independent laboratory test data giving physical property values in comparison to the specified material.
- D. Pre-Installation Conference: Prior to the commencement of the fluid applied waterproofing coating system, meet at the site with a representative of the coating manufacturer, waterproofing contractor, general contractor, architect, and other parties affected by this section. Review the application methods and procedures, substrate conditions, scheduling, and safety.
- E. The static co-efficient shall meet the minimum recommendations of the American Disability Act (ADA), for accessible routes, wet and dry surfaces and for leather and rubber heel materials.

#### 1.5 DELIVERY, STORAGE AND HANDLING

- A. Store all coating materials in their original unopened containers at 50 to 80 °F (10 to 27 °C) until coating is ready for use.
- B. Follow the special handling or storage requirements of the manufacturer for cold weather, hot weather, etc.
- C. Safety: Refer to all applicable data, including, but not limited to Safety Data Sheet (SDS), PDS, product labels and specific instructions for specific personal protection requirements.
- D. Ventilation: Provide adequate ventilation.
- E. Environmental requirements: Proceed with the work of this section only when the existing and forecasted weather conditions will permit the application to be performed in accordance with the manufacturer's recommendations.

#### **1.6 WARRANTY**

A warranty is available for commercial projects only. Contractor must be eligible for and make application to: Gaco, prior to the start of the work under this section.

#### **PART 2 - PRODUCTS**

#### 2.1 MANUFACTURERS

Acceptable Manufacturers: Gaco: www.gaco.com

# 2.2 MATERIALS

- A. Concrete Primer: GacoPoly™ E5691 Three-Component Epoxy Primer Sealer or GacoPoly Elasto-Poxy Primer VOC Two-Component epoxy primer.
- B. Metal Primer: GacoPoly Elasto-Poxy Primer VOC Two-Component epoxy primer.
- C. Polyurethane Coating: GacoPoly FASTPASS Three-Component aliphatic, high solids, single step, traffic coating.
- D. Detail Sealant: Permathane SM7120 PU single component polyurethane sealant.

- E. Fabric Reinforcement: GacoFlex 66S or TieTex 272 Polyester Tape.
- F. GacoPoly FASTPASS Polyurethane traffic coating system has the following physical properties:

TYPICAL PROPERTIES		
Property	ASTM Test	<u>Value</u>
Tensile Strength	D412	3000 ± 10%
Elongation	D412	400% ± 25
V.O.C. <sup>4</sup>	EPA Method 24	19 g/L
Tear Resistance	D624, Die C	375 ± 25 pli (66.9 ± 4.5 kg (f) / cm
Hardness	D2240	90 ± 5 Shore A
Water Absorption	D471 max, 7-day R.T.	< 1.5%
Water Vapor Permeance	E96, Procedure B max, 100 % R.H. difference @ 23 °C	1 perm
Pot Life		25 ± 5 minutes at 70 °F (21 °C) and 50 % R.H.
Coverage		32-33 ft² / gal / Mil (45-48 mil)  A&B Combined Coverage:  4.5-gal kit 144-148 ft² per kit  (45-48 mil DFT).

- G. Flashing and Joint Reinforcing Fabric: GacoFlex 66S or TieTex 272 Polyester Tape as required for flashing drains, base angles, etc.
- H. Miscellaneous Accessories: All items incorporated into this coating system shall be compatible with and approved by the coating manufacturer.

**NOTE:** Allow additional material for rough or irregular surfaces and for material loss during the application.

# **PART 3 - EXECUTION**

# 3.1 EXAMINATION

- A. Verify that the substrate is ready to receive the work; the surface is clean, dry, and free of surface contaminants that could affect the bond.
- B. Do not begin the work until the concrete substrate has been cured for 28 days and/or has achieved a moisture content of no greater than 4.5% as measured using a TRAMEX CME 4 or CME 5 Moisture Meter.
- C. Prior to application of waterproofing perform calcium chloride test, to verify a moisture content of 6.8% or less has been established.
- D. Verify that the concrete meets the requirements of the coating manufacturer. Refer to Gaco General Instructions "GP-2-1 Curing and Drying of Concrete" for complete information on the installation and finishing of concrete.
- E. Verify with architect, general contractor, and manufacturer that substrate conditions are acceptable to receive waterproofing application.

#### 3.2 PREPARATION

- A. Clean substrate to remove any and all surface contaminants. Refer to Gaco General Instructions "GP-1-1 Surface Preparation".
- B. Mask off all adjoining areas that are not to receive the fluid applied waterproofing.
- C. Provide a suitable workstation to mix the coating materials.

#### 3.3 INSTALLATION

- A. Technical Advice: The installation of this waterproofing membrane shall be accomplished in the presence of or with the advice of the manufacturer's technical representative. Contact the nearest regional office for assistance.
- B. Concrete Sealer: Seal entire deck surface and all vertical or sloping surfaces of curbs, cants, parapets, etc., to receive coatings with one coat GacoPoly E5691 Primer Sealer at a rate of one gallon per 200 ft<sup>2</sup> (3.78 L / 18.6 m<sup>2</sup>). Allow to dry until nearly tack free where water has evaporated leaving a clear film before proceeding to next

- coat. Recoat window is approximately 2 hours (depending on temperature and humidity) to 28 days. No additional primer is necessary when sealing with GacoPoly E5691 Primer Sealer.
- C. Concrete Primer: If GacoPoly Elasto-poxy Primer VOC is used, apply one coat of Primer by roller at the rate of 1 gallon per 250 ft² (3.78 L / 18.6 m²). Allow primer to cure 2-3 hours till "Thumbprint tacky" not to exceed 8 hours. Consult Gaco for alternate primer/sealer recommendations.
- D. Detail Work: Use Permathane SM7120 PU polyurethane sealant as required and tool the surface smooth. Install Polyester Reinforcing Tape at all changes of plane and irregular surfaces using Permathane SM7120 PU polyurethane sealant. Treat cracks in the surface with Permathane SM7120 PU polyurethane sealant. If fabric reinforcement is required use Permathane SM7120 PU polyurethane sealant and TieTex 272 or GacoFlex 66S Polyester Tape.
- E. Mixing: After opening the pail lid, remove the plastic tray insert that contains the Aggregate and Catalyst. Remove the tray insert and place it on the lid. Remove the Catalyst Can and set it aside next to the insert. Caution! Use care while Mixing the Kit. Prevent whipping air into the material while mixing use a slow and Methodical mixing approach.
- F. Lightly stir the Pigmented A-Component in the pail for about a minute Using a jiffy mixing blade and a low-speed mechanical mixer (400 500 rpm speed) to evenly distribute the pigments and obtain a uniform color. Slowly add the pre-proportioned aggregate from the tray insert into the A-Component under low-speed mixing. Scrape the bottom and sides of the pail and ensure aggregate is evenly mixed within the A-Component. Mix for 2 minutes.
  - Slowly pour the B-Component (1/2 gallon can) into the Aggregate Mixed Component Pail while mixing so that the B- Component gets pulled into the vortex of the mixing paddle. Scrape the sides of the container to ensure a good mix.
  - Mix for 2 3 minutes until a homogenous mixture and a uniform color is obtained.
- G. Application: After mixing, immediately pour the mixed GacoPoly FASTPASS kit onto the substrate. Caution! Leaving the mixed material in the pail will shorten the working time and pot life that will result in loss of material. To achieve an effective squeegee application, pour the mixed material in a ribbon fashion and not into one large puddle. Using a 3/8" V-Notched Squeegee or a trowel, (At an angle) apply GacoPoly FASTPASS over the entire area including the detailed areas (cracks, joints, flashing etc.). To prevent improper thickness. the notched squeegee must be stiff enough to not bend when pressure is placed on it.
  - Push the squeegee behind ribbon of material with consistent pressure on the squeegee. Do not pull squeegee towards the applicator. The Material applied should pass through the squeegee notches. After squeegeeing material to proper thickness, using a ¼" nap shed free, solvent resistant roller cover, back-roll the applied material in two directions, one perpendicular to the other.
  - To achieve proper thickness, wet the roller with the material prior to back-rolling. Dry roller will result in improper thickness.
  - Do not apply pressure with roller. Do not push material with roller. Avoid back-rolling more than one time in each direction
  - to prevent inconsistent texture. A spiked roller could be considered also to help control blisters, craters, and/or pinholes.

# 3.4 FIELD QUALITY CONTROL

A. The contractor for work under this section shall maintain a quality control program specifically to verify compliance with this specification. A daily log shall be kept to record actions in the field.

- B. Inspections: A minimum of three (Substrate, Application and Final) Inspections by a manufacturer's representative is required on all projects requiring a warranty.
- C. Thickness: Minimum over all dry film thickness of the completed fluid applied vehicular waterproofing coating system will average 45-48 mils.