

Gaco Western

S I N C E 1 9 5 5

Application Specification:

GW-15-U61
April 2016
Supersedes 9/15

Division 07 18 16:
GacoQRSDeck
POLYASPARTIC POLYUREA HYBRID ELASTOMERIC COATING SYSTEM
FOR VEHICULAR TRAFFIC DECKS AND RAMPS

PART 1 - GENERAL

1.1 SUMMARY

- A. This section describes the requirements for installing a liquid applied traffic bearing membrane. Gaco Western U61 Series is a 1:1 ratio, dual component, polyurea/polyaspartic hybrid, liquid-applied elastomer. It consists of a pigmented POLY (polyaspartic ester and polyetheramine) component and slightly opaque ISO (isocyanate) component. When properly combined and applied they cure to form tough, high-strength membranes.
- B. This specification is prepared in a brief form so that it can be used verbatim in the waterproofing section. It is only necessary to make the selections indicated to complete it. Gaco Western's General Instructions, which are incorporated by reference, provide specific detailed instructions for the guidance of contractors and inspectors.
- C. For additional information refer to GW-3-5 Traffic Deck Instructions, recommendations on substrate inspection, preparation and coating application that are specific to this traffic deck 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 "Qualified Applicator" Certificate from the specified waterproofing manufacturer.

1.4 QUALIFICATIONS

- A. Primary fast cure polyaspartic polyurea hybrid elastomeric coating system shall be of:
 - 1. Single manufacturer. Manufacturer shall have a minimum of 10 years experience in the manufacture of materials of this type.
 - 2. Applicator shall have a **minimum of 5 years experience** in the application of waterproofing materials of the type specified. Applicator shall possess a current "Qualified 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 the 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 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.

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 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 Western LLC, prior to the start of the work under this section.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

Acceptable Manufacturers:
Gaco Western LLC
www.gaco.com

2.2 MATERIALS

- A. Concrete Epoxy Sealer: GacoFlex E-5990 100% Solids, Two-Component Epoxy Sealer.
- B. Base Coat: GacoFlex U61 Series two-component, Fast Cure, Polyaspartic Polyurea Hybrid Coating.

C. Finish Coat: GacoFlex U61 Series two-component, Fast Cure, Polyaspartic Polyurea Hybrid Coating.

PROPERTY	VALUE	TEST METHOD
Tensile Strength	1420 ± 50 psi	ASTM D-412
Elongation	270% ± 20	ASTM D-412
Permanent Set at Break	7% Max.	ASTM D-412
Tear Resistance	360 ± 20 pli	ASTM D-624 Die C
Hardness	82 Shore A min. @ 70°F (21°C)	ASTM C836
Solids	Volume: 93%	
VOC	<10 g/l	

F. Flashing and Joint Reinforcing Fabric: GacoFlex 66B Polyester Tape. GacoFlex NF-621 Neoprene Sheet Flashing and related materials as required for flashing drains, base angles, etc.

G. Granules: GacoShell Granule, a hard (90 Rockwell Scale) non-crushable, non-extractable organic granule. Size 12/20 for general application and for sloped ramps and turn areas.

H. Miscellaneous Accessories: All items incorporated into this system shall be compatible with and approved by the coating manufacturer.

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

PART 3 - EXECUTION

3.1 EXAMINATION

- 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.
- Do not begin the work until the concrete substrate has cured 10-14 days and has achieved a moisture content of no greater than 6.8%.
- Where applicable, prior to the application of the waterproofing perform a calcium chloride test to verify moisture emittance is less than 3 lbs per 1000 sq. ft. in 24 hours.
- Verify that the concrete meets the requirements of the coating manufacturer. Refer to Gaco Western's General Instruction GW-2-1 for complete information on the installation and finishing of concrete.
- Verify with the architect, general contractor and manufacture that the substrate conditions are acceptable to receive the waterproofing application.
- Contractor will accept substrate prior to the application of coatings.

3.2 PREPARATION

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

3.3 INSTALLATION

- A. **Technical Advice:** The installation of this waterproofing membrane system shall be accomplished in the presence of or with the advice of the manufacturer's technical representative. Contact the nearest regional office for assistance. Refer to GW-3-5 for installation procedures per the manufacturer.
- B. **Concrete Sealer:** Seal the entire deck surface and all vertical or sloping surfaces of curbs, cants, parapets etc., to receive coatings with one coat of GacoFlex E-5990 Epoxy Sealer at a rate of 8 mils (0.5 gallons/100 ft²). Allow the sealer to dry until tack free (2-4 hours). High-humidity areas accelerate the rate of cure of GacoFlex E-5990 Sealer. Do not apply the product if the substrate is below 50°F or above 110°F.
- C. **Detail Work:** Install an approved, 100% polyurethane sealant as required and tool the surface smooth. Install GacoFlex 66B Polyester Reinforced, Mesh Tape at all changes of plane and irregular surfaces using GacoFlex U61 Series Polyaspartic Polyurea Coating. Treat cracks in the surface with GacoFlex U61 Series Polyaspartic Polyurea Coating and GacoFlex 66B Tape. GacoFlex NF-621 Neoprene Sheet Flashing should be used for expansion or seismic joints or joints showing movement over 1/8". Consult the GW-621 Neoprene Sheet Flashing System for additional information.
- D. **Base Coat:** Apply one coat of GacoFlex U-61 Series Polyaspartic Polyurea Coating at a rate of 20 mils WFT (1.25 gallons/100 ft²) to all areas to receive the fluid applied waterproofing, including areas previously sealed, flashed or fabric reinforced.
- E. **GacoShell Granules:** Approximately 8 minutes (75 degree ambient temperature) after applying Base Coat, broadcast GacoShell Granules size 12/20, approximately 4 to 6 pounds per 100 sq. ft. After application of Gacoshell Granules, allow the base coat to cure for (2-4 hours) prior to application of finish coat.
- F. **Finish Coat:** Prior to installing the finish coat sweep or vacuum away all loose GacoShell Granules from the surface. Apply one coat of GacoFlex U-61 Series Polyaspartic Polyurea Coating at a rate of 20 mils WFT (1.25 gallons/100 ft²).
- G. The GacoFlex QRS (Quick Return to Service) Systems were developed with products designed to allow a very fast return to service. Under ideal conditions this can be as fast as 12 hours for foot traffic and 24 hours for vehicular traffic.

3.4 FIELD QUALITY CONTROL

- A. For work under this section, the contractor 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 five (Substrate, Detail Work, Base Coat/Granules, Top Coat 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 system, excluding GacoShell Granules, will average 45 mils.