

### **DIVISION 07 18 13: PEDESTRIAN TRAFFIC COATING**

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

##### **1.1 SUMMARY**

- A. This section describes the requirements for furnishing and installing a surface applied, high solids, two component, chemically curing, fire retardant, traffic bearing surface, intended for use as pedestrian deck surface, rooftop playground, or similar applications. The film thickness of this specification will be in excess of 60 mils, not including granule. This specification incorporates the installation of GacoCrete cementitious underlayment (where needed) and a GacoFlex GW-14-UBA System. Applied over GacoCrete at ¼" (6.4 mm) thickness, this system meets the requirements for UL Class A Fire, and a 1 Hour Rated Assembly, over min. ¾" (19 mm) plywood.
- 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.

##### **1.2 RELATED SECTIONS**

- A. Cast-In-Place Concrete: Division 03 30 00
- B. Rough Carpentry: Division 06 10 00
- C. Flashing and Sheet Metal: Division 07 60 00

##### **1.3 SUBMITTALS**

- A. Product Data: Submit manufacturers' standard submittal package including specification, installation instructions and general information for each waterproofing material.
- B. Applicator Qualifications: Submit current "Qualified Applicator" Certificate from 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. Single Manufacturer: Primary waterproofing materials shall be products of a single manufacturer. Secondary materials shall be as recommended by the primary manufacturer. Primary manufacturer shall have a minimum of 10 year experience in the manufacture of materials of this type.
- B. Applicator shall have a minimum five (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.
- C. 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 product specified 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 a bid amendment issued 5 working days prior to the bid opening. No other changes to specification or bid documents will be accepted.



- D. Pre-Bid Installation Conference: Just prior to commencement of fluid applied waterproofing system, meet at the site with a representative of the coating manufacturer, waterproofing contractor, general contractor, and other parties affected by this section. Review methods and procedures, including, but not limited to, substrate conditions, drains, penetrations, waterproofing requirements, construction scheduling and availability of materials.

### 1.5 DELIVERY, HANDLING, AND STORAGE

- A. Store all materials in their original containers until ready for use.
- B. Follow special handling or storage requirements of the manufacturer, cold weather, hot weather, etc.
- C. Safety: Refer to all applicable data, including, but not limited to SDS, PDS, product labels, specific instructions for specific personal protection requirements.
- D. Ventilation: Provide adequate ventilation to prevent the accumulation of hazardous fumes during application.
- E. Environmental Requirements: Proceed with work of this section only when existing and forecasted weather conditions will permit the application to be performed in accordance with the manufacturer's recommendations.

### 1.6 JOB CONDITIONS

- A. Substrate: Proceed with work of this section only after substrate construction and penetration work has been completed. As conditions require, complete stucco removal, flashing replacement, deck demolition, etc.
- B. Weather: Proceed with work of this section only when existing and forecasted weather conditions will permit work to be performed in accordance with manufacturer's recommendations.
- C. Ventilation: Provide adequate ventilation to prevent the accumulation of hazardous fumes during application.

### 1.7 WARRANTY

- A. A warranty is available for commercial projects only. The Contractor must be eligible and submit an application to Gaco prior to the start of the work under this section.
- B. Only Gaco Qualified Applicators are eligible for labor and material warranties from Gaco.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

Acceptable Manufacturers

Gaco: [www.gaco.com](http://www.gaco.com)

### 2.2 MATERIALS

- A. Sealer: GacoFlex E-5691 Three-Component Epoxy Primer Sealer  
*Alternative Sealer:* For areas vulnerable high vapor drive seal with GacoFlex E-5990 100% Solids Two-Component Epoxy Sealer.
- B. Primer: GacoFlex E-5320 Two-Component Epoxy Primer (only if alternative GacoFlex E-5990 Sealer is used)
- C. Polyurethane Base Coating: GacoFlex UB-64 Polyurethane Series Two-Component Coating
- D. Polyurethane Top Coating: GacoFlex A-38 Acrylic Coating
- E. Flashing and Joint Reinforcing Fabric: Gaco 66B and 66S Polyester Tape. GacoFlex NF-621 Neoprene Sheet Flashing and related materials as required for flashing drains, base angles, etc.



- F. Granule: GacoShell Granule, a hard (90 Rockwell Scale) non-crushable, non-extractable organic granule with a specific gravity of 1.3 Size 18/ 40 unless otherwise specified.
- G. GacoCrete Underlayment: GacoFlex A-17 Acrylic Resurfacer and GacoFlex 66B Polyester Tape.
- H. Misc. Accessories: All items incorporated into this system shall be compatible with and approved by the coating manufacturer.

**NOTE:** Allow additional material for rough or irregular surfaces. Consult Gaco Technical Service for further inquiries.

<b>GACOFLEX UB-64 POLYURETHANE BASECOAT</b>		
<b>PROPERTY *</b>	<b>ASTM TEST</b>	<b>VALUE (minimum)</b>
Tensile Strength	D412	2,100 psi ±100 psi
Elongation	D412	400% ±25%
Hardness, Shore A	D2240	90
Tear Resistance	D624	375 lb
Water Absorption	D471	2%
Permeability	E96	.02"
Volume Solids	N/A	75%

<b>GACOFLEX A-38 ACRYLIC BASECOAT</b>		
<b>PROPERTY *</b>	<b>ASTM TEST</b>	<b>VALUE (minimum)</b>
Tensile Strength	D412	2,500 psi
Elongation	D412	300%
Hardness, Shore A	D2240	90
Tear Resistance	D624	300 lb
Water Absorption	D471	2%
Permeability	E96	.06"
Volume Solids	N/A	39%

## **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 cured 28 days and/or has achieved a moisture content of no greater than 6.8%.
- 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 Instruction GW-2-1 for complete information on the installation and finishing of concrete.
- E. Verify with architect, general contractor and manufacture that substrate conditions are acceptable to receive waterproofing application.

### **3.2 PREPARATION**

- A. Prepare existing deck coating surface by removing railings, thresholds, or other impediments prior to the installation of the GacoCrete A-17 Acrylic Resurfacer.
- B. Fill voids, seal joints and apply bond breaker as required.
- C. Mask off adjoining surfaces not to receive fluid applied waterproofing, to prevent spillage outside membrane area.



### 3.3 INSTALLATION

- A. The installation of this waterproofing membrane shall be accomplished in presence of or with advice of the manufacturer's technical representative. Contact the nearest regional office for assistance.
- B. GacoCrete A-17 Acrylic Resurfacer Underlayment (Where specified): Install GacoCrete A-17 Acrylic Resurfacer to a minimum  $\frac{1}{8}$ " (3.2 mm) thickness,  $\frac{1}{4}$ " (**6.4 mm**) for **UL Class A, One Hour fire rated assemblies, over min.  $\frac{3}{4}$ " (19 mm) plywood**. Using GacoFlex A-17 Acrylic Resurfacer, apply in accordance with Gaco Specification GW-13GC. For the purposes of the 1 Hour rated assembly, use GacoFlex 66B Polyester Tape or 2.5 lb metal lath.
- C. Concrete Sealer: Seal entire deck surface and all vertical or sloping surfaces of curbs, cants, parapets, etc., to receive coatings with one coat GacoFlex E-5691 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 GacoFlex E-5691 Primer Sealer.

*Alternative Concrete Sealer:* For areas vulnerable to a high vapor drive seal with GacoFlex E-5990 100% Solids Two-Component Epoxy Sealer. Use a squeegee to uniformly apply product over coverage area at a rate of one gallon per 150 ft<sup>2</sup> for CSP 3 190 ft<sup>2</sup> for CSP 2. Any excess product should be back rolled over entire area to ensure even application. Do not apply product if substrate is below 50 °F (10 °C) or above 110 °F (43 °C).

- D. Concrete Primer: Only if alternative GacoFlex E-5990 Sealer is used, apply one coat of GacoFlex E-5320 Primer by roller at the rate of one gallon per 250 ft<sup>2</sup> (3.78 L / 23.2 m<sup>2</sup>). Allow 3 to 24 hours drying time. For maximum solvent resistance, see drying time directed in Gaco General Instructions GW-2-2, Priming. Drying times vary depending on weather conditions such as temperature, humidity and air movement.

**NOTE:** Wood substrates do not require sealing or priming. When priming, carry GacoFlex E-5320 Primer onto any perimeter metal.

- E. Tape: Install GacoFlex 66B Polyester Tape at perimeter terminations, plywood joints and metal edges. Set GacoFlex 66B Polyester Tape in a bed of GacoFlex UB-64 Polyurethane, then topcoat with GacoFlex UB-64 Polyurethane. Smooth out all edges.
- F. **BASECOAT:** Apply GacoFlex UB-64 Polyurethane in one coat of 1½ gallons per 100 ft<sup>2</sup> to achieve a dry film thickness of not less than 18 mils. Application can be made by roller or trowel.
- G. **WEARING COURSE:** Apply a wearing course consisting of granules which are imbedded in polyurethane to become a homogeneous system.  
Blend: GacoFlex UB-64 Polyurethane Series mixing 1½, then adding 8-10 lb of GacoShell18/40 Granules into mixture and trowel apply at the rate of 1½ gallons per 100 ft<sup>2</sup>.
- H. **TEXTURE COAT:** Apply GacoFlex UB-64 Polyurethane at the rate of  $\frac{3}{4}$  gallon per 100 ft<sup>2</sup> immediately broadcast GacoShell 18/40 granules into the wet coating at the rate of 8-10 lb per 100 ft<sup>2</sup>.
- I. **ACRYLIC FINISH COAT:** Sweep away loose granules and apply GacoFlex A-38 Acrylic Coating at the rate of  $\frac{3}{4}$  gallon per 100 ft<sup>2</sup> per coat in **two** coats. Finish texture may be varied (more texture or less) as directed by the owner.

### 3.3 FIELD QUALITY CONTROL

- A. The contractor shall maintain a quality control program specifically to verify compliance with this specification. A daily log shall be kept to record progress in the field.
- B. Inspections: A minimum of three inspections (Substrate, Application, and Final), by an approved Manufacturer's representative will be required on all projects requiring a warranty.

**NOTE:** System should be allowed to cure a minimum of 48 hours prior to being put into service.

**Dry film thickness, less GacoShell Granules, will average 55 mils, with aggregate will average 61 mils.**

