

**DIVISION 07 18 13:  
GACOFLEX™ GACOCRETE™  
ACRYLIC MODIFIED TOPPING**

### **PART 1 - GENERAL**

#### **1.1 DESCRIPTION**

- A. GacoCrete cementitious topping is a quick curing acrylic latex modified overlay system that provides a hard durable substrate suitable for the application of most GacoFlex coating systems. When added to locally obtained sand and cement, GacoFlex A17 Acrylic Resurfacer adds strength, adhesion, flexibility and toughness to the GacoCrete System.
- B. GacoCrete is effectively used over structurally sound concrete to repair a damaged or worn surface or enhance slope to drain. GacoCrete is also used with mechanically fastened fiberglass scrim over plywood or other structural wood products to cover a substandard or weathered surface. GacoCrete is recommended to overlay existing coatings which are unknown or in poor condition prior to the application of a GacoFlex coating system.

#### **1.2 RELATED SECTIONS**

- A. Cast-In-Place Concrete: Division 03 30 00
- B. Flashing and Sheet Metal: Division 07 60 00
- C. Drains, Vents, and Penetrations: Division 07 70 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.

#### **1.4 QUALIFICATIONS**

- A. Single Manufacturer: Primary waterproofing materials shall be products of a single manufacturer. The primary manufacturer shall recommend secondary materials. The primary manufacturer shall have a minimum of 10 years experience in the manufacture of materials of this type.
- B. Applicators 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.
- C. Pre-Bid Conference: 10 working days prior to 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 a bid amendment issued 5 working days prior to the bid opening. No other changes to specification or bid documents will be accepted.

- D. 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:
  - a. Letter of certification, signed by an officer of the manufacturer, stating the alternative material is equal to or
  - b. Independent laboratory test data giving physical property values in comparison to the specified material.
- E. Pre-Installation Conference: Just prior to commencement of the fluid application 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 the original unopened containers at 50 to 80 °F (10 to 27 °C) till 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, 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. Safety: Refer to all applicable data, including, but not limited to SDS, PDS, product labels and specific instructions for specific personal protection requirements.
- B. Ventilation: Provide adequate ventilation to prevent the accumulation of hazardous fumes during application.
- C. Weather: Proceed with the 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.

## 1.7 WARRANTY

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

# PART 2 - PRODUCTS

## 2.1 MANUFACTURERS

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

## 2.2 MATERIALS

- A. GacoFlex 66S Reinforcing Polyester Mesh (Tape).
- B. GacoFlex A17 GacoCrete Acrylic Resurfacer.
- C. Type I cement is commonly available in 96 lb bags (Cement marked Type I & II is also acceptable).
- D. Clean washed and graded silica sand is available in 100 lb bags.
- E. GacoCrete requires a primer sealer system prior to the application of any GacoFlex coating system.



## 2.3 MIXES

- A. GacoFlex A17 GacoCrete is most effectively mixed in batches of approximately 3½ gallons each. Coverage will vary depending on thickness desired, filling or leveling requirements. A 3½ gallon batch will result in 80 ft<sup>2</sup> coverage at 62 mils (1/16" / 1.6 mm) or 20 ft<sup>2</sup> at 250 mils (¼" / 25 mm).
- B. Material requirements per batch:
1. 30 lb 40 to 50 mesh sand (9 quarts)
  2. 15 lb Type I Portland cement (6 quarts)
  3. 4 pints GacoFlex A17 GacoCrete Acrylic Resurfacer
  4. 4 pints water
- C. Combine sand and cement, mixing thoroughly to prevent lumps. Blend water and GacoFlex A17 GacoCrete Acrylic Resurfacer together in equal volumes then add to mix as needed to produce a thin mortar consistency. Start with approximately 6 pints GacoFlex A17 GacoCrete Acrylic Resurfacer/ water blend and add more liquid as needed. Allow the GacoCrete to hydrate for 5 minutes, and then remix. If mortar is too thick to place, add small amounts of GacoFlex A17 Acrylic Resurfacer blend to achieve desired consistency.
- NOTE:** Once GacoCrete is mixed it has a pot life of 4 hours at 70 °F (21 °C.) Higher temperatures will shorten pot life accordingly. Do not add water or GacoFlex A17 Acrylic Resurfacer blend after initial mixing, as this will weaken and may cause cracking in the GacoCrete.
- D. Application temperatures must be above 50 °F (10 °C). Application must be protected from moisture or rain for 24 hours.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

Plywood to be covered must be structurally sound, properly fastened and free of rot, splinters or chips and without plywood delamination's (See General Instructions "GW-2-3 Plywood Selection and Installation"). When overlaying previously coated wood, remove blisters and loose material. GacoCrete relies on mechanical fasteners for attachment when applied over existing coating and is not recommended over coated concrete.

#### Concrete:

- 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 General Instructions "GW-2-1 Curing and Drying of Concrete" 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. Clean substrate to remove all surface compounds, sealers and contaminates.
- B. Provide a suitable work station to mix the coating materials.



### 3.3 INSTALLATION ON WOOD SURFACES

- A. Position GacoFlex 66S Scrim Mesh at deck edge and stretch to eliminate wrinkles. Fasten with  $\frac{3}{8}$ " (9.5 mm) galvanized or stainless-steel staples 4" (102 mm) on center. Overlap subsequent passes 3" (76 mm) and continue stapling pattern.
- B. Scrim coat: Apply GacoCrete with a 12" (305 mm) to 16" (406 mm) long steel finishing trowel. Hold trowel at a 15° angle from the surface and using a semicircular or arching motion. Screed mixture evenly to insure GacoCrete completely fills scrim mesh and covers the scrim itself. Make a second trowel pass with the trowel nearly flat and with downward pressure to create a smooth finish. Some slight trowel marks are inevitable in the scrim coat and they can be addressed with the finish coat. Coverage will be approximately 80 ft<sup>2</sup> per standard batch. Allow to dry thoroughly. This may be as little as one hour in direct sun or as long as overnight under minimal drying conditions or interior applications.
- C. Finish coat: Make sure first coat is clean and dry. Remove any trowel ridges in scrim coat by scraping with a trowel edge. Sweep and vacuum surface to remove debris. Spread GacoCrete in passes using smooth and even trowel pressure to create a smooth finish. Coverage will be approximately 120 ft<sup>2</sup> per batch. It is necessary to dampen the surface of the first coat immediately before placing finish coat material. Use a fine water mist from a pressure tank garden sprayer, taking care not to puddle water. Additional water is sprayed into pass line while troweling to eliminate ridging at laps.
- D. Drying and Curing: GacoCrete relies upon both hydration of cement and coalescing of the latex modifier to achieve full strength and cure. Satisfactory performance requires that GacoCrete is cured and dry before application of the coating system. Allow two to three days drying time under good weather conditions. Cool or wet weather will increase drying time.

### 3.4 INSTALLATION ON CONCRETE SURFACES

- A. GacoCrete can be applied to sound structural concrete in lifts of  $\frac{1}{4}$ " (6.4 mm) to 1" (25 mm) or slightly over. When the application thickness approaches 1" (25 mm), the mesh must be embedded in the middle of the GacoCrete installation. Consult with Gaco Western for alternative systems. Use a level or string screed lines when needed to establish slope to drain.
- B. Prime clean and dry concrete with GacoFlex A17 Acrylic Resurfacer / water blend prior to applying GacoCrete. Entire surface should be primed and allowed to dry.

### 3.5 PRIMER/ SEALER OVER CURED GACOCRETE

- A. Concrete Sealer: Seal entire deck surface and all vertical or sloping surfaces of curbs, cants, parapets, etc., to receive coatings with one coat GacoFlex 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 GacoFlex E5691 Primer Sealer.

*Alternative Concrete Sealer:* For areas vulnerable to a high vapor drive seal with GacoFlex E5990 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).

- B. Concrete Primer: Only if alternative GacoFlex E5990 Sealer is used, apply one coat of GacoFlex E5320 Primer by roller at the rate of 1 gallon per 250 ft<sup>2</sup> (1.89 L / 9.3 m<sup>2</sup>). Allow drying a minimum of 24 hours. For maximum solvent resistance, see drying time directions in General Instructions "GW-2-2 Primer Systems for Various Substrates". Drying times vary depending on weather conditions such as temperature, humidity, and air movement.

