Gaco™

Application Specification:

GW-13-GC
Revised: 08/2021

DIVISION 07 18 13:
GACOFLEX™ A17 GACOCRETE™ ACRYLIC RESURFACER / MODIFIED TOPPING OVER PLYWOOD AND CONCRETE DECKING

PART 1 - GENERAL

1.1 SUMMARY

A. GacoFlex A17 GacoCrete Acrylic Resurfacer / Modified Topping is a cementitious, quick-curing modified acrylic-latex overlay system that provides a durable substrate suitable for the application of most GacoFlex Coating Systems. This product also acts as a resurfacer – when combined with Cement & Silica as specified - adds strength, adhesion, flexibility and toughness to compatible GacoFlex Coating Systems.

B. GacoFlex A17 GacoCrete Acrylic Resurfacer / Modified Topping is effectively used over structurally sound concrete to repair a damaged or worn surface or enhance slope to drain. GacoFlex A17 GacoCrete Acrylic Resurfacer / Modified Topping is also used with mechanically-fastened fiberglass scrim over plywood or other structural wood products to cover a substandard or weathered surface. GacoFlex A17 GacoCrete Acrylic Resurfacer / Modified Topping 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/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 Letter of Good Standing from the specified waterproofing manufacturer.

1.4 QUALIFICATIONS

A. Primary waterproofing materials shall be the products of a single manufacturer. Secondary materials shall be recommended by the primary manufacturer. The manufacturer shall have a minimum of ten (10) years' experience in the manufacture of materials of this type.

B. Applicators shall have a minimum of five (5) years' experience in the application of waterproofing materials of the type specified. Applicator shall possess a current Letter of Good Standing from the specified waterproofing manufacturer.

C. **PRE-BID CONFERENCE:**
Ten (10) working days prior to the bid opening there is to be a mandatory Pre-Bid Conference. Those 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 addendum issued five (5) working days prior to the bid opening. No other changes to the 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 (10) 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 alternate 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.

E. **PRE-INSTALLATION CONFERENCE:**
Just prior to the commencement of the installation, meet at the jobsite with a representative of the coating manufacturer, Applicator, general contractor, architect, and other parties affected by this section. Review the methods and procedures, substrate conditions, scheduling, and safety.

1.5 DELIVERY, STORAGE AND HANDLING

A. Owner/owner's representative shall reject damaged or non-conforming materials. Rejected materials must be removed immediately from the job site.

B. Store the coating materials as recommended by the manufacturer and conforming to applicable safety regulatory agencies: town or city, state, and federal. Refer to all applicable data including, but not limited to: Safety Data Sheets, Product Data Sheets, product labels, and specific instructions for personal protection.

C. Provide adequate ventilation, protection from hazardous fumes, and overspray potential to workers and associated trades near of the site application.

D. 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.

1.6 WARRANTY

A. 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. **REINFORCING MESH:**
GacoFlex ¼ in (6.35 mm) Scrim Mesh

B. **CONCRETE RESURFACER**:
GacoFlex A17 GacoCrete Acrylic Resurfacer / Modified Topping

C. **CEMENT TYPE:**
Type I Portland cement – available in approx. 96 lb (43.5 kg) container
(Cement marked "Type I & II" is also acceptable)

D. **SILICA TYPE:**
Washed and Graded (40 – 50 Mesh) – available in approx.100 lbs (45.4 kg) container

E. **ACRYLIC MODIFIED TOPPING:**
GacoFlex A17 GacoCrete Acrylic Resurfacer / Modified Topping

NOTE: This product requires Sealer / Primer System prior to the application of a subsequent GacoFlex Coating System. Contact a Gaco sales representative for additional information.

F. **CONCRETE SEALER OVER ACRYLIC MODIFIED TOPPING:**
GacoFlex E5691 Water-Reducible Epoxy Sealer / Primer
ALTERNATIVE: *GacoFlex E5990 100% Solids Two-Component Epoxy Sealer/Primer (when appropriate)*

G. **CONCRETE SEALER OVER ACRYLIC MODIFIED TOPPING:**
GacoFlex E5320 Water-Based Two-Component Epoxy Sealer/Primer

NOTE: *Apply only if GacoFlex E5990 100% Solids Two-Component Epoxy Sealer/Primer is used as "Concrete Sealer Over Acrylic Modified Topping" (See Section 2.2.F.)*

PART 3 - EXECUTION

3.1 EXAMINATION

A. **OVER PLYWOOD SURFACES:**
i. Must be structurally sound, properly fastened and free of rot, splinters and/or chips – all without plywood delaminations (See General Instructions "GW-2-3 Plywood Selection and Installation").
ii. When overlaying previously coated wood, remove blisters and loose material. GacoFlex A17 GacoCrete Acrylic Resurfacer / Modified Topping relies on mechanical fasteners for attachment when applied over existing coating.
iii. 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.
iv. Verify with architect, general contractor and manufacture that substrate conditions are acceptable to receive waterproofing application

B. **OVER CONCRETE SURFACES:**
i. 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.
ii. Do not begin the work until the concrete substrate has cured twenty-eight (28) days and/or has achieved a moisture content of no greater than 6.8 %.
iii. Prior to application of waterproofing perform calcium chloride test, to verify a moisture content of 6.8 % or less has been established.
iv. 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.
v. Verify with architect, general contractor and manufacture that substrate conditions are acceptable to receive waterproofing application

NOTE: Not recommended for application over previously coated concrete.

3.2 PREPARATION

A. Perform final inspection of substrate condition and ensure clean of all surface compounds, sealers, contaminates and debris.

3.3 INSTALLATION

A. **REQUIRED MATERIAL MIXING:**
Ensure that just prior to start of job that products to be applied are prepared sufficiently and maintained within specification requirements for applied product characteristics:

i. MATERIALS REQUIRED PER BATCH:
1. **SILICA*:** 30 lbs (13.6 kg) **Measure by Weight*
2. **CEMENT*:** 15 lb (6.8 kg) **Measure by Weight*
3. **GACOFLEX A17 GACOCRETE ACRYLIC RESURFACER / MODIFIED TOPPING:** 0.6 gal (2.27 L)
4. **CLEAN WATER:** 0.6 gal (2.27 L)

B. Combine Silica and Cement, mixing thoroughly to prevent lumps. Add to the mixture clean water and GacoFlex A17 GacoCrete Acrylic Resurfacer / Modified Topping in the volumes specified above and continue to mix until a thin, mortar-like consistency is achieved. If product mixture is too thick, add as minimal amount of clean water as possible to achieve the consistency as defined above. After the appropriate consistency has been achieved, allow the product mixture to hydrate for a minimum of five (5) minutes, and then re-mix to a mortar-like consistency. If the resulting hydrated mixture is too thick to place, add as minimal amount of GacoFlex A17 GacoCrete Acrylic Resurfacer / Modified Topping as possible to achieve a workable consistency.

NOTE: The product mixture it has a pot life of four (4) hours at 70 °F (21 °C.) and 50 % R.H. Higher temperatures will shorten pot life accordingly.

NOTE: Do not add water or GacoFlex A17 GacoCrete Acrylic Resurfacer / Modified Topping to the product mixture after proper mixing/consistency has been achieved as this will result in cracking/failure of the mixture when fully cured.

C. **NOTE:** Ambient temperature at time of application must be above 50 °F (10 °C). Application must be protected from moisture or rain for twenty-four (24) hours.

D. **APPLICATION OVER WOOD SURFACES:**

i. Position GacoFlex ¼ in (6.35 mm) Scrim Mesh at deck edge and stretch to eliminate wrinkles. Fasten with ⅜ in (9.5 mm) galvanized or stainless steel staples 4 in (102 mm) on center. Overlap subsequent passes by a minimum of 3 in (76 mm) and continue stapling pattern. Trim excessive scrim mesh to cover the entire application area and continue stapling pattern up to termination.

ii. **SCRIM COAT:**
Apply product mixture with a 12 – 16 in (304 mm – 406 mm) long steel finishing trowel. Hold trowel at a 15 ° angle from the surface and using a semicircular or arching motion. Screed product mixture evenly to insure complete fill of the scrim cavities – with no voids – and total encapsulation for the scrim mesh as a whole. 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 ft² (7.4 m²) / batch of prepared product mixture as described in Section 3.3.B. Allow to dry a minimum of one (1) hour at 70 °F (21 °C.) and 50 % R.H.with direct sunlight. Poor drying conditions & indoor applications will require additional drying time up to eight (8) total hours minimum.

iii. **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 product mixture in passes using smooth and even trowel pressure to create a smooth finish. Coverage will be approximately 120 ft² (11.1 m²) / batch of prepared product mixture as described in Section 3.3.B.. 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 in order to eliminate ridging at laps.

iv. **DRYING AND CURING:**
Product mixture relies upon both hydration of cement and coalescing of the latex modifier to achieve full strength and cure. Satisfactory performance requires that product mixture is fully-cured and dry before application of a subsequent GacoFlex coating system. Allow minimum of two (2) days of drying time at 70 °F (21 °C.) and 50 % R.H. Cool or wet weather – in addition to indoor applications – will increase minimum drying time.

E. **APPLICATION OVER CONCRETE SURFACES:**

i. Prime clean and dry concrete with a 1:1 ratio blend of GacoFlex A17 GacoCrete Acrylic Resurfacer / Modified Topping-to-Clean Water prior to applying product mixture. Entire surface to be treated should be primed and allowed to dry a minimum of one (1) hour at 70 °F (21 °C.) and 50 % R.H. with direct sunlight. Poor drying conditions & indoor applications will require additional drying time of (1) hour minimum.

ii. Product mixture can be applied to sound structural concrete in lifts of 0.25 – 1 in (6.3 – 25 mm) or slightly over. When the application thickness approaches 1 in (25 mm), full encapsulation of the surface and any other elements must be achieved. Consult with Gaco for alternative systems. Use a level or string screed lines when needed to establish slope to drain. Allow minimum of two (2) days of drying time at 70 °F (21 °C.) and 50 % R.H.. Cool or wet weather – in addition to indoor applications – will increase drying time.

F. **REQUIRED PRIMER/SEALER SYSTEM FOR GACO COATINGS OVER CURED GACOFLEX A17 GACOCRETE ACRYLIC RESURFACER / MODIFIED TOPPING:**

i. **SEALER (CONCRETE SURFACES):**
Seal entire deck surface and all vertical or sloping surfaces of curbs, cants, parapets, etc., to receive coatings with one coat GacoFlex E5691 Water-Reducible Epoxy Sealer/Primer at a minimum rate of 1 gal / 200 ft² (3.8 L / 18.5 m²). Allow to dry until nearly tack-free – where water has evaporated to achieve a clear film-like. Recoat window is two (2) hours to twenty-eight (28) days.

NOTE: No additional primer is necessary when sealing with GacoFlex E5691 Water-Reducible Epoxy Sealer/Primer as described above in this section.

NOTE: <u>FOR AREAS VULNERABLE TO A HIGH VAPOR-DRIVE</u>: GacoFlex E5990 100% Solids Two-Component Epoxy Sealer/Primer should be used as a complete replacement of GacoFlex E5691 Water-Reducible Epoxy Sealer/Primer. Use a squeegee to uniformly apply product over application area at the following minimum rate to meet the desired rating standard (CPS 2 Requirement: Minimum rate of 1 gal / 190 ft² (3.8 L / 17.6 m²) / CPS 3 Requirement: Minimum rate of 1 gal / 150 ft² (3.8 L / 13.9 m²)). 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). Allow product to fully dry for a minimum of two (2) hours at 70 °F (21 °C.) and 50 % R.H.. Cool or wet weather – in addition to indoor applications – will increase drying time.

ii. **PRIMER (CONCRETE SURFACES):**

NOTE: <u>ONLY PREFORM THIS STEP IF GACOFLEX E5990 100% SOLIDS TWO-COMPONENT EPOXY SEALER/PRIMER</u> has been used as the sealer in Section 3.3.F.i. of the application process.

Apply GacoFlex E5320 Water-Based Two-Component Epoxy Sealer/Primer by roller at a minimum rate of 1 gal / 250 ft² (3.8 L / 23.2 m²). Allow product to fully dry for a minimum of twenty-four (24) hours at 70 °F (21 °C.) and 50 % R.H.. Cool or wet weather – in addition to indoor applications – will increase drying time.

NOTE: For maximum solvent resistance, see drying time directions in General Instructions "GW-2-2 Primer Systems for Various Substrates".

3.4 FIELD QUALITY CONTROL

A. Any variations from the specified limits found by the Applicator or owner's representative shall be corrected by the Applicator.

B. **MINIMUM DRY FILM THICKNESS (DFT) REQUIREMENT:**
Gaco recommends adding a 10% variance factor to obtain the minimum DFT mil thickness required. It is the Applicator's responsibility to calculate the amount of coating needed to obtain the minimum DFT mil thickness.

C. No traffic shall be permitted on the coated surface for a minimum of three (3) days. Damage to the surface by other trades shall not be the responsibility of the Applicator.