

Gaco Western

S I N C E 1 9 5 5

Application Specification:

TM-36-UB

July 2016

Supersedes 8/14

DIVISION 07 18 13: GACOFLEX UB-64 MEMBRANE FOR THIN-SET TILE ON PLYWOOD OR CONCRETE DECKS

PART 1 - GENERAL

1.1 SUMMARY

- A. GacoFlex UB-64 Elastomeric Coating provides a waterproofing membrane suitable to be overlaid with thin-set ceramic tile. Thin-set tile adhesives, setting materials and grouts not covered in this specification shall be recommended by the manufacturer of these materials as suitable for exterior weather exposure including freeze-thaw cycling when applicable.
- B. GacoFlex U-5677 Sealer, GacoFlex E-5320 Primer and GacoFlex UB-64 Polyurethane base coat products listed in this application have been manufactured in compliance with ANSI A118.10-99 and have been certified by IAPMO to comply with applicable sections of the Uniform Plumbing Code® and International Plumbing Code®.
- C. This specification is prepared in brief form so it can be used verbatim in the waterproofing section. It is necessary only 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.

1.2 RELATED SECTIONS

- A. Drains, vents and penetrations: Division 07 72 00
- B. Cast-In-Place Concrete: Division 03 30 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 waterproofing materials shall be products of a single manufacturer. Secondary materials shall be recommended by the primary manufacturer. 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 "Qualified Applicator" Certificate from the specified waterproofing manufacturer.

- C. Pre-Bid Conference: 10 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 a bid amendment issued 5 working days prior to the bid opening. No other changes to the specification or bid documents will be accepted.
- D. Pre-Installation Conference: Prior to 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 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° - 80°F (10°- 26°C) until 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 MSDS, PDS, product labels and specific instructions for specific personal protection requirements.
- D. Ventilation: Provide adequate ventilation to prevent the accumulation of hazardous fumes during the application.
- E. Environmental requirements: 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.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

Acceptable Manufacturers:
Gaco Western LLC, www.gaco.com
800-456-4226

2.2 MATERIALS

- A. Polyurethane Coating: GacoFlex UB-64 Polyurethane Coating.
- B. Sealer: GacoFlex U-5677 Polyurethane Sealer.
Alternative Concrete Sealer: For areas vulnerable high vapor drive seal with GacoFlex E-5990 High Solids Sealer.
- C. Primer: GacoFlex E-5320 Epoxy Primer.
Alternative Primer: GacoFlex E-5511 Primer.
- C. Flashing and Joint Reinforcing Fabric: GacoFlex 66-B, GacoFlex NF-621 Neoprene Sheet Flashing and related materials as required for flashing drains, base angles, etc.

PART 3 - EXECUTION

3.1 EXAMINATION

B. Verify that the plywood shall conform to U.S. DOC PS 1 or CSA 0325 and shall carry the grade trademark of the Engineered Wood Association - APA AB EXT or APA AC EXT are acceptable. Underlayment grade plywood (APA AC EXT Underlayment) with solid, plugged cross bands under the face veneer is recommended for commercial installations. Refer to Gaco Western's General Instruction GW-2-3 for complete information on the installation and fastening of plywood.

Unacceptable Grades: APA C-D EXT, APA C-C EXT, Exposure 1 markings, oriented strand board (OSB), waferboard and Lauan or Mahogany plywood are **NOT** suitable substrates for liquid-applied coating systems. This is due to poor dimensional stability, weak glue lines which allow buckling or lifting of the top ply and excessive splintered, leafed and raised surface grain.

B. 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.

C. 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%.

D. Prior to application of waterproofing perform calcium chloride test, to verify a moisture content of 6.8% or less has been established.

E. 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.

F. Verify with architect, general contractor and manufacture that substrate conditions are acceptable to receive waterproofing application.

3.2 PREPARATION

A. Clean the substrate to remove any and all surface contaminants. Refer to Gaco Western's General Instructions GW-1-1, Surface Preparation.

B. Protect all adjoining areas that are not to receive the fluid applied waterproofing.

C. Provide a suitable work station 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 GacoFlex U-5677 Sealer at a rate of one gallon per 300 square feet (3.78 L / 27.9 m²). Allow a minimum of 4 hours but no more than 8 hours maximum prior to applying primer coat. All applications of U-5677 Sealer are to be top coated with either GacoFlex E-5320 Primer by sunset the same day.

NOTE: High-humidity areas accelerate the rate of cure of GacoFlex U-5677 Sealer and can cause poor intercoat adhesion if left without a top coat. After 24 hours intercoat adhesion can be poor.

Alternative Concrete Sealer: For areas vulnerable high vapor drive seal with GacoFlex E-5990 High Solids Epoxy Primer Use a squeegee to uniformly apply product over coverage area at a rate of one gallon per 150 square feet. Any excess product should be back rolled over entire area to ensure even application. Do not apply product if substrate is below 50°F or above 110°F.

- C. Concrete Primer: Apply one coat of GacoFlex E-5320 Primer by roller at an application rate of 1 gallon per 200 square feet (1.89 L / 9.3 m²). Allow the primer to completely dry with a minimum drying time of 4 hours. For maximum solvent resistance, see drying time directed in Gaco Western's General Instructions GW-2-2. NOTE: If the primer cannot be scratched off with your finger nail, it is ready to receive the GacoFlex UB-64 Polyurethane Coating.

Alternative Concrete Primer: Apply one coat of GacoFlex E-5511 Primer/Sealer to all surfaces to receive the fluid applied waterproofing, except areas previously caulked, flashed or fabric reinforced. Apply at an application rate of one gallon per 150 sq. ft. (3.78 L / 13.9 m²) and allow it to dry at least 6 hours, but no more than 3 days before applying the base coat of GacoFlex UB-64 Polyurethane Coating.

- D. Flashing Tape: Apply GacoFlex UB-64 Polyurethane Coating by brush or roller in six inch (12.73 cm to 15.24 cm) wide stripe coat centered over all joints, cracks and changes of plane to be taped. While this coat is still tacky, unroll GacoFlex 66-B Flashing Tape into the coating and apply a top coat of GacoFlex UB-64 Polyurethane Coating over the GacoFlex 66-B Flashing Tape smoothing out any wrinkles and/or fishmouths.
- E. Polyurethane Base Coat: Apply one coat of GacoFlex UB-64 Polyurethane Coating at an application rate of 1 ½ gallons per 100 sq. ft. (5.68 L / 9.3 m²) to all areas to receive fluid applied waterproofing, including areas previously caulked, flashed or fabric reinforced. Achieve an application rate of 18 dry mils.

Note: Allow the base coat to cure for at least 8 hours, but no more than 72 hours before applying the second coat of GacoFlex UB-64 Polyurethane Coating. If 72 hours have elapsed, apply GacoFlex U-5677 Sealer at an application rate of one gallon per 300 square feet (3.78 L / 27.9 m²) as a bond/tie coat.

- F. Polyurethane Finish Coat Apply one coat of GacoFlex UB-64 Polyurethane Coating at a rate of 1 ½ gallons per 100 sq. ft. (5.68 L / 9.3 m²) (24 mils wet (.61 mm)) to all areas to receive the fluid applied waterproofing, including areas previously caulked, flashed or fabric reinforced. Achieve an application rate of 18 dry mils.

Note: Allow each coat to dry until tack free coating should be dry enough for foot traffic without damage before applying additional coatings. Allow 4- 24 hours to cure depending on weather conditions. In sunny conditions, avoid using black base coats since dark colors absorb heat quickly and may cause coating to blister or exhibit other film deficiencies.

If the entire installation cannot be completed without interruption, complete the first coat of GacoFlex UB-64 Polyurethane Coating to provide protection for the tape system and general areas. If interruption occurs, cleaning is essential to assure adhesion. Clean using a solvent-alkaline cleaner or liquid detergent. Cleaning is necessary to remove any dirt accumulation.

Allow the membrane to cure 24 hours, but no more than 72 hours prior to installing thin set tile. Most commercially available adhesives designed specifically for thin-set tile are acceptable. However, a test sample is desired.

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. Thickness: Minimum over all dry film thickness of the completed fluid applied waterproofing system will average 36 mils (.91 mm).