Gaco Western
SINCE 1955

Application Specification:

LWM-UB64C
August 2014
Supersedes 04/09

DIVISION 07 14 16:
GACOFLEX UB-64C MEMBRANE FOR USE ON PLYWOOD OR CONCRETE DECKS

PART 1 - GENERAL

1.1 SUMMARY

A. GacoFlex UB-64-C Series Elastomeric Coatings provide a waterproofing membrane suitable to be overlaid with poured in place concrete, pavers or similar topping. These products are Zero VOC and compliant worldwide. This section includes membrane installation and protection board / drainage mat.

B. 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. Rough Carpentry: Division 06 10 53
C. Cast-In-Place Concrete: Division 03 33 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 posses 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: Just prior to the commencement of the fluid application waterproofing system, meet at the site with a representative of the coating manufacturer, the waterproofing contractor, the general contractor, the 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 the 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 Sheets, PDS Sheets, product labels, 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 the existing and forecasted weather conditions will permit the application to be performed in accordance with the manufacturer's recommendations.

1.6 WARRANTY

A. The contractor shall guarantee that all work performed will be free from defects in workmanship for a period of 5 (five) years.

B. Manufacturer shall provide a 10 (Ten) year material warranty providing for coverage against premature material decomposition, adhesive failure, cohesive failure, and that the material will perform as published.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

Acceptable Manufacturers:
Gaco Western, LLC www.gaco.com

2.2 MATERIALS

A. Polyurethane Membrane Coating: GacoFlex UB-64C Series two-component Polyurethane Coating.

B. Sealer: GacoFlex U-5677 Polyurethane Concrete Sealer.

C. Primer: GacoFlex E-5320 two component Epoxy Concrete Primer.

D. Joint Reinforcing Fabric: Gaco Western 66-B and 66-S Fabric Tape.

E. Flashing: GacoFlex NF-621 Neoprene Sheet Flashing and related materials as required for flashing drains, base angles, etc.

PART 3 - EXECUTION

3.1 EXAMINATION

A. **Acceptable Plywood Grades**: The plywood shall conform to U.S. Product Standard PS 1-95 and shall carry the grade trademark of The Engineered Wood Association - APA 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.

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.

Refer to Gaco Western's General Instruction GW-2-3 for complete information on the installation and fastening of plywood.

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

B. Mask off 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 the entire deck surface and all vertical or sloping surfaces of curbs, cants, parapets, etc., which are to receive coatings with one coat GacoFlex U-5677 Sealer at a rate of one gallon per 400 square feet (3.78 L / 9.3 m^2). Allow to dry 4 hours minimum but no more than 8 hours maximum prior to applying primer coat.

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 square feet for CSP 3 190 square feet 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 or above 110°F.

Note: Wood substrates do not require sealing or priming.

C. Concrete Primer: Apply one coat of GacoFlex E-5320 Primer by roller at the rate of 1 gallon per 250 square feet (1.89 L / 9.3 m^2). Allow it to dry for 12 to 24 hours.

D. *Alternative Concrete Primer/Sealer*: Apply one coat of GacoFlex E-5511 Primer to all surfaces to receive the fluid applied waterproofing, except areas previously caulked, flashed or fabric reinforced. Apply at a rate of one gallon per 150 sq. ft. (3.78 L / 13.9 m^2) and allow it to cure for at least 6 hours, but no more than 48 hours before applying the basecoat.

E. Polyurethane Coating: Apply two coats of GacoFlex UB-64C Series Polyurethane at a rate of 1.75 gallons per 100 sq. ft. (6.06 L / 9.3 m^2) (30 wet film mils each coat, 21 dry mils each coat) Yielding a total dry film thickness of 42 mils to all areas to receive fluid applied waterproofing, including areas previously caulked, flashed or fabric reinforced. Allow the base coat to cure for at least 2 hours,

F. Finish Coat Polyurethane Coating: Apply one coat of GacoFlex UB-64C Series Polyurethane Coating at a rate of 1.5 gallons per 100 sq. ft. (24 mils wet) Dry film thickness of 18 mils to all areas to receive the fluid applied waterproofing, including areas previously caulked, flashed or fabric reinforced.

Note: Allow each coat to dry until tack free and dry enough for foot traffic without damage before applying additional coats. Several hours to overnight will be required, depending on the drying conditions. In periods of extreme high temperatures or in direct sunlight, use caution as dark colors absorb heat quickly and may cause coating to blister or exhibit other film defects.

Note: If the entire job cannot be completed without interruption, the interruption should occur after the first base coat has been applied. This will provide protection for the tape system and general areas. It is best to schedule the installation to avoid interruptions. If they occur, cleaning is essential to assure adhesion. Application of interlaminar sealer GacoFlex U-5677 is required after a period of 7 days.

I. Water Test: Prior to being covered with overburden, perform a water test after 48 hour. Cover all horizontal surfaces with water to a depth of 2" and allow it to stand for a minimum of 24 hours. If leaks are detected, repair and re-test as necessary. Obtain a sign off from the Owner or General Contractor as to watertight integrity after the water test.

3.4 PROTECTION

A. Drainage Mat: If a drainage mat is to be used, Install on the cured membrane (post water test) a layer of composite drainage system consisting of a three-dimensional, crush-proof drainage core and a non-woven needle punched filter fabric. This composite is tested to meet or exceed the following properties:

PROPERTY	TEST METHOD	VALUE
CORE		
Compressive Strength	ASTM D-1621	30,000 psf.
Thickness	ASTM D-1777	.25 in.
FABRIC		
Flow	ASTM D-4491	205 gpm/ft^2
Mullen Burst	ASTM D-3786	285 psi.
Puncture	ASTM D-4833	80 lbs.
Apparent Opening Size	CW-02215	70-100
Grab Tensile	ASTM D-4632	120 lbs.

3.5 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 60 mils.