Section 07120:
GACOFLEX UB-64 MEMBRANE FOR THIN-SET TILE ON PLYWOOD OR CONCRETE DECKS

PART 1 - GENERAL

1.1 SUMMARY

A. GacoFlex UB-64 Series Elastomeric Coatings provide a rubber 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. 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: Section: 07700
B. Cast-In-Place Concrete: Section 03300

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 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 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. Pre-Installation Conference: Just prior to 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 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.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

Acceptable Manufacturers:
Gaco Western, Inc.

2.2 MATERIALS

A. Urethane Membrane Coating: GacoFlex UB-64 Series two-component coating.

B. Concrete Primer/Sealer: Gaco Western Urethane Concrete Primer U-5677 and Gacoflex two component Epoxy Concrete Sealer E-5320.

Alternative Primer/Sealer: Gaco Western Zero VOC Primer/Sealer: E-5400 two component 100% solids Epoxy concrete primer/sealer.

C. Flashing and Joint Reinforcing Fabric: Gaco Western 66B and 66S fabric. Gacoflex NF-621 neoprene sheet flashing, and related materials as required for flashing drains, base angles, etc.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that the plywood shall conform to U.S. Product Standard PS 1-92 and shall carry the grade trademark of the American Plywood Association Grades APA BC EXT or APA AC EXT are acceptable. These are minimum grades suitable for liquid coating applications. Refer to Gaco Western's General Instruction GW-2-3 (formerly GW-3) for complete information on the installation and fastening of plywood.

B. Do not begin work until concrete substrate has cured 28 days, minimum.

C. After concrete is cured, the deck shall be allowed to dry for four weeks before coating. if deck is exposed to moisture after drying period and prior to the application of the coating, allow a least two days of good weather before coating. Work will not start when moisture or precipitation threatens or when temperature is under 40°F (4°C).

D. Verify that substrate is ready to receive work, surface is clean, dry and free from projections, depressions loose scale, sand, curing compounds, grease, oil, asphalt, and other foreign deposits. Construction work on the vault should be completed and all penetrations installed.

E. Surface Contaminants: Wipe up grease or oil with a solvent and absorbent sweeping material. Wash with solvent - alkaline cleaner diluted one part cleaner and five parts water. If evidence of oil film or curing compounds remain as indicated by water "beading", etch surface with 10% solution muriatic acid. Agitate etch with stiff bristle broom; then rinse with clean water.

F. Verify that the concrete meets the requirements of the coating manufacturer. Refer to Gaco Western's General Instruction GW-2-1(formerly GW-2) for complete information on the installation and finishing of concrete.

3.2 PREPARATION

A. Clean substrate to remove any and all surface contaminants. Refer to Gaco Western's General Instructions GW-1-1 (formerly GW1, 1B), 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 Primer/Sealer: Prime 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 300 square feet (4.2 L / 10 m^2). Allow to dry a minimum of 1 hour and no more than 72 hours before applying sealer coat.

Apply one coat of Gacoflex E-5320 by roller at the rate of ½ gallon per 100 square feet (2 L / 10 m^2). Allow to dry a minimum of 24 hours. For maximum solvent resistance, see drying time directed in Gaco Western's General Instructions GW-2-2 (formerly GW-1 Section II).

Alternative Concrete Primer/Sealer: Apply one coat of Gaco Western's E-5400 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. (4.1 L / 15 m^2) and allow to cure at least 6 hours, but no more than 3 days before applying the basecoat.

C. Urethane Base Coat: Apply one coat of Gaco Western's UB-64 Series Urethane at a rate of 1.5 gallons per 100 sq. ft. (6.1 L / 10 m^2) (24 mils wet (.6 mm)) 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 8 hours, but no more than 72 hours before applying the wear course. If 72 hours have elapsed, apply U-5677 at a rate of one gallon per 300 square feet (4.2 L / 30 m^2) as a bond coat.

D. Urethane Top Coat: Apply one coat of Gaco Western's UB-64 Series Urethane at a rate of 1.5 gallons per 100 sq. ft. (6.1 L / 10 m^2) (24 mils wet (.6 mm)) 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 8 hours, but no more than 72 hours before applying the wear course. If 72 hours have elapsed, apply U-5677 at a rate of one gallon per 300 square feet (4.2 L / 30 m^2) as a bond coat.

E. Allow each coat to dry until tack free and dry enough for foot traffic without damage before applying additional coatings. Several hours to overnight will be required, depending on drying conditions. In hot, sunny conditions, avoid using black base coats since dark colors absorb heat quickly and may cause coating to blister or exhibit other film defects.

F. If entire job cannot be carried through to completion without interruption should occur after the first base coat . This will provide protection for the tape system and general areas. It is best to schedule application to avoid interruptions. If they occur, cleaning is essential to assure adhesion.

G. Before resuming work, the surface must be well cleaned by washing with solvent-alkaline cleaner or liquid detergent. This cleaning is necessary to remove dirt accumulation and the surface film which forms on polyolefin coatings. Failure to remove either can result in poor adhesion. Remove oil or grease by solvent wiping. Solvent wiping must be done lightly and with extreme care to avoid lifting or wrinkling.

H. Allow 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 (.9 mm).