

# Gaco Western

S I N C E 1 9 5 5

## Application Specification:

GW-US-37-PW

July 2017

Supersedes 9/13

### DIVISION 07 01 50.61: GACOFLEX POLYURETHANE AND SILICONE ELASTOMERIC COATING SYSTEM FOR APPLICATION ON PLYWOOD ROOF DECKS

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. This section describes the requirements for installing a liquid applied waterproof coating system for plywood surfaces over occupied space. Its intended use is suitable for residential and commercial projects.
- B. **Note:** This is only intended for installation over *Marine Grade Plywood Decks with All Joints Blocked!*
- C. **Note:** This is intended for roof decks only, and *not* intended for pedestrian decks or balcony decks.

##### 1.2 RELATED SECTIONS

- |                                  |               |                                 |               |
|----------------------------------|---------------|---------------------------------|---------------|
| A. Cast-In-Place Concrete:       | Section 03300 | F. Vapor barriers/air barriers: | Section 07190 |
| B. Flashing/Sheet Metal:         | Section 07600 | G. Board Insulation:            | Section 07212 |
| C. Roof Accessories:             | Section 07800 | H. Skylights:                   | Section 05300 |
| D. Rough Carpentry/wood blocking | Section 06100 |                                 |               |
| E. Drains, vents, penetrations   | Section 07700 |                                 |               |

##### 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: Ten 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° to 80°F (10° to 27°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 SDS sheets, PDS sheets, product labels, and specific instructions for 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 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 work under this section.

**PART 2 - PRODUCTS**

**2.1 MANUFACTURERS**

Acceptable Manufacturers:  
Gaco Western

**2.2 MATERIALS**

- A. Primer: GacoFlex E5320 Two-Component Epoxy Primer.
- B. Polyurethane Base Coating: GacoFlex UB64 Series two component coating.
- C. Finish Coating: GacoFlex S20 Silicone Series using contrasting colors and having the following physical properties.

<u>Property</u>	<u>Value</u>	<u>Test Method</u>	<u>S2000 Immersed in Water @150°F(66°C) for 1 year per ASTM D-471:</u>
Tensile Strength	550 psi	ASTM D412	Strength:463psi(3.19MPa)
Elongation	150%	ASTM D412	Elongation: 125%
Tear Resistance	21 pli	ASTM D624	Permanent Set At Break: 0%
Hardness	55 Shore A	ASTM D676	
Water Vapor Permeability	5.3 perms Procedure B at 0.5 mm (20 mils) thickness ± 10% Minimum permeance requirement is 2.5 U.S. perms	ASTM E96	
Volume Solids	95% ± 1%	Calculated	
Reflectance	0.88	ASTM C1549	
Emittance	0.87	ASTM C1371	

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Verify that substrate is ready to receive work; surface is clean, dry and free of substances that could affect bond.
- B. Examine the plywood roof deck to ensure that this is *marine grade plywood*.
- C. Verify that the plywood installation meets the requirements of the coating manufacturer. Refer to Gaco Western's General Instruction GW-2-3 for complete information on the installation of plywood.
- D. Verify that all other work involved with this area, done under other sections, has been completed and accepted by the architect and general contractor prior to starting the waterproofing application.

### 3.2 PREPARATION

- A. Clean substrate to remove 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 workstation 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. Metal Primer: All metal should be mechanically abraded prior to priming. New metal should be solvent wiped to remove any oil residue. Apply one coat of GacoFlex E5320 Two Component Epoxy Primer by roller at the rate of one gallon per 250 square feet (3.78 L / 23.2 m<sup>2</sup>) to all metal surfaces. Allow 3 to 24 hours drying time. Drying times vary depending on weather conditions such as temperature, humidity and air movement.
- C. Sacrificial Tape: Apply 1" wide blue masking tape (painter's tape) to all plywood seams, metal flashing seams, and metal to plywood joints. Tape should be centered on the seams/joints.
- D. Taping: Apply GacoFlex UB64 Polyurethane Series by brush or roller in a five to 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 66B Tape into the coating and apply second coat of GacoFlex UB64 Polyurethane over the tape smoothing out wrinkles and fishmouths.

Allow to cure a minimum of 1½ hour before proceeding to next step. On plywood substrates, taping application will require approximately 1/3 to 1/2 gallon of polyurethane coating per 100 square feet (1.25 to 1.89 L / 9.3 m<sup>2</sup>).

- E. Polyurethane Base Coat: Apply one coat of GacoFlex UB64 Polyurethane Series at a rate of 1.25 gallons per 100 sq. ft (4.73 L / 9.3 m<sup>2</sup>), (20 mils wet (.51 m)) to all areas to receive fluid applied waterproofing, including areas previously caulked, flashed or fabric reinforced. Allow the base coat to cure completely (8 hours minimum at 70°F (21°C)). Dry film thickness of the base coat shall be a minimum of 15 mils (.38 mm)
- F. Finish Coat: Apply GacoFlex S20 Silicone Series at the rate of 1.5 gallon per 100 square feet (5.68 L / 9.3 m<sup>2</sup>). At all edges and penetrations, an extra pass must be applied. Allow to dry 3 to 7 hours. Dry film thickness shall be a minimum of 22 mils (.56 mm).

Allow 48 hours before deck is put into use. In cool temperatures, and areas with low humidity, a longer curing time may be required.

### 3.4 FIELD QUALITY CONTROL

- A. The contractor 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. Inspections: A minimum of three (Substrate, Application and Final) inspections, by an approved manufacturer's representative, will be required on all projects requiring a warranty.
- C. Thickness: Minimum over all dry film thickness of the completed fluid applied waterproofing, will average 37 mils (.94 mm).