

Application Specification:

RC-15

April 2006
Supersedes 05/01

GACO WESTERN ELASTOMERIC COATINGS APPLIED OVER PRE-EXISTING ELASTOMERIC COATINGS

PART 1 - GENERAL

1.1 SUMMARY

NOTE TO ARCHITECTS AND ENGINEERS: This specification provides for a remedial coating system for application over pre-existing elastomeric coating on sprayed-in-place polyurethane foam, structural concrete or plywood surfaces. This coating system is suitable for use over a number of materials provided certain requirements and conditions listed below are verified. Refer to the Systems Chart for each specific GacoFlex product.

GacoFlex elastomeric coatings provide the necessary flexibility, toughness, and weather resistance for long-term protection. GacoFlex elastomeric coatings, when applied according to this specification, will provide a nominal 15 mils (.38 mm) dry film thickness, providing waterproofing and weatherproof protection.

The GacoFlex elastomeric coating systems in this specification have moderate rate of water vapor transmission and are not recommended for use on cold storage or cryogenic structures. Such structures may have constant high water vapor drive causing long-term accumulation of moisture in the insulation. Consult Gaco Western for vapor retardant systems to use on refrigerated structures.

This specification assumes that the pre-existing elastomeric coating system is a minimum of 28 dry mils (.71 mm), and that is intact with no material or structural defects. Conditions to check and corrections to consider are as follows:

The existing generic type of coating that must be identified include urethane rubber, Hypalon, EPDM, butyl, or acrylic. With proper surface preparation, including primer, all of these elastomeric coating types can be recoated. Non-elastomeric coatings including vinyls, epoxies and asphalts require treatment not covered in this specification. Consult Gaco Western if this type of coating is present. *Note:* For recoating existing silicone coatings see our application specification RC-22-GS10 or RC-22-GS20.

The existing sprayed-in-place polyurethane foam must be adequately bonded to the substrate and be free from moisture. If moisture is suspected, obtain a moisture content survey in conjunction with core cuts & moisture readings i.e. infra-red. Remove and replace moist and inadequately bonded insulation. All pre-existing coating must be well bonded and intact with sufficient slope (at least ¼" (.64 cm) to the foot (30 cm) slope) to eliminate ponding water. Ponding water is defined as an area of 100 square feet (9.3 m²) or ½" (1.27 cm) in depth within 48 hours after a rainfall.

The Specifier must choose one of the topcoats listed in the Systems Chart in the back of this specification. The Physical Property Chart is listed in the back of this specification.

1.2 RELATED SECTIONS

- A. Drains, vents, penetrations Section 07700
- B. Roof accessories Section 07800

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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.
- C. Substrate Conditions:
 - 1. Manufacturer's representative to present to owner a completed inspection form verifying substrate condition and any noted defects **not** specifically addressed in regard to this installation.
 - 2. Surface shall be free from loose dirt, stone, debris, moisture, and shall be in stable condition. Any work on the area to receive this application shall be completed prior to installation.
 - 3. Applicator shall complete a substrate inspection prior to start of roofing. The architect/owner and applicator shall accept the surface. Start of the work constitutes acceptance.

1.4 QUALIFICATIONS

- A. Primary waterproofing materials shall be products of a single manufacturer. The primary manufacturer shall recommend secondary materials. 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 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. Materials other than specified shall be submitted to the architect/owner for approval no later than ten days prior to 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 alternative 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 commencement of the installation, 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. Delivered all materials in sufficient quantities as not to cause delays in application of the roofing system. Owner/owner's representative shall reject damaged materials not conforming. Rejected materials shall be removed immediately from the job site and replaced at no additional cost to the owner.

- B. Store materials as recommended by manufacturer and conforming to applicable safety regulatory agencies: town, state, and federal. Refer to all applicable data including but not limited to MSDS 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 in close proximity of site applications.

1.6 WARRANTY

Gaco Western warrants that the material supplied will meet or exceed physical properties as published. The contractor guarantees that workmanship will be free of defects in coating application. Since performance of previously applied coatings are beyond the control of Gaco Western or the contractor, no other warranty expressed or implied is made.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

Acceptable Manufacturers:
Gaco Western

2.2 MATERIALS

- A. Primer: Gaco Western's U-5677 single component polyurethane primer.
- B. Cleaner: GacoFlex D-09 etching detergent.
- C. Acrylics: A-30, A-31, A-32 series. These type of coatings offer the most economical protection, and has excellent weather stability and color retention.
Note: GacoFlex A-3200 white acrylic coating meets Energy Star solar reflectance performance requirements (per low-slope roofs).
- D. Single Component Aromatic Polyurethane: UreShield U-6006. This coating is economical yet has higher physical properties. It also offers good weatherability as well as excellent impact and abrasion resistance.
- E. Two Component Aromatic Polyurethane: GacoFlex U-66 Series coating offers tough durable protection, with good weatherability and excellent impact and abrasion resistance.
- F. Two Component Fast Set Polyurethane: GacoFlex U-87 series for single pass applications offering excellent weatherability & abrasion resistance.
- G. Two Component Aliphatic Polyurethane: GacoFlex UA-60 series. This coating offers the ultimate in protection. It offers excellent weatherability, color retention, and is impact and abrasion resistant.

Elastomeric Coating: Coating shall be GacoFlex _____ coating (choose from the coating listed in this specification) having the following physical properties:

<u>Property</u>	<u>Value</u>	<u>Test Method</u>
Tensile Strength	_____	ASTM D-412
Elongation	_____	ASTM D-412
Tear Strength	_____	ASTM D-624
Hardness	_____	ASTM D-2240
Water Absorption	_____	ASTM D-471
Permeability	_____	ASTM E-96
Volume Solids	_____	Calculated

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. Cleaning of the roof should be accomplished by using power vacuum equipment, power sweepers, air blowers, power washers or other suitable means.
- C. All associated construction (i.e. drain installation, edge flashing, penetrations and mechanical apparatus) shall be completed prior to commencement of specified roofing system.
- 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 the substrate using the D-09 etching detergent to remove any and all surface contaminants. Refer to Gaco Western's General Instructions Section GW-1-1 Surface Preparation.
- B. Mask off all adjoining areas that will not receive the roofing system.
- C. Protection of building and occupants:
 - 1. All surfaces not to receive system specified shall be protected from overspray hazard i.e. windows, doors, exterior and vehicles. Protective coverings shall be secured against wind and shall be vented if used in conjunction with applications preventing collection and moisture.
 - 2. Contractor is to post signs noting potential overspray hazard within 400' (121.90 meters) of applications.
 - 3. All air intake ventilation equipment shall be turned off to prevent fumes from entering building.
 - 4. Surfaces damaged during application shall be restored at no expense to the owner.
 - 5. No smoking signs to be posted as mandated by local fire officials.
- D. Substrate: Proceed with work as specified only after substrate construction, preparation, and detail work has been completed.
- E. Equipment: All equipment used during operations shall be located so as not to adversely effect the daily operations or endanger occupants, structure or materials on-site. All spray equipment must be grounded during operations.

3.3 INSTALLATION

- A. Technical Advice: The installation of this roofing system 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. Primer/Sealer: Refer to Gaco Western's "Primer Recommendation Chart" or contact the nearest regional office for assistance.
- C. Repair Coating: In areas where the substrate has been damaged such as urethane foam with an abraded surface or where loose coating has been removed, apply two coats of GacoFlex _____ elastomeric coating at a rate of one gallon per 100 square feet (3.78 L / 9.3 m²) each coat. (Choose the same coating for repair as the topcoat found in this specification.)

Note: U-87 Series must be applied in a single pass

- D. Top Coat: Apply one coat of GacoFlex _____ to achieve a nominal film thickness of 15 dry mils (.38 mm). The coverage rate shall be no less than _____ gallon(s) per 100 square feet (9.3 m²). The color shall be selected from Gaco Western standard color chart. Coat all surfaces including expansion joint covers and flashing.
- E. No traffic shall be permitted on the coated surface for a minimum of three days. Damage to the surface by other trades is not the responsibility of the roofing contractor.

3.4 FIELD QUALITY CONTROL

The contract shall maintain a system to verify compliance with this specification.

- A. Thickness of applied coating shall be measured and recorded for each coat and the total protective coating system.
- B. The owner's representative has the option of taking core samples to verify compliance with the specification.
1. Cut out sections shall be immediately repaired by the contractor at his cost.
 2. All costs of testing the core samples shall be paid by the owner.
- C. Film Thickness: The dry film thickness of the topcoat shall average 15 dry mils (.38 mm) (13 mils (.33 mm) minimum) in addition to the pre-existing coating. Rough surfaces that increase surface area will require proportionate increases in coating to obtain the 15 dry mil (.38 mm) film thickness.