

Gaco Western

S I N C E 1 9 5 5

Application Specification:

MR-20-A30

June 2015

DIVISION 07 01 50.61: REHABILITATION OF METAL ROOFS

PART 1 – GENERAL

1.1 SUMMARY

- A. This specification provides a waterproof, weather resistant, color-stable acrylic elastomeric membrane for the renovation of all types and shapes of metal roofs. GacoFlex A-30 Series is a Fast Dry water-borne, single component waterproofing elastomeric coatings that is silicone modified and has excellent hardness, tensile strength, water resistance; it is cleanable and has excellent exterior weather resistance. The GacoFlex A-30 Series along with the primer and joint treatment, will provide excellent protection for metal roofs, effectively sealing seams and fastener penetrations and renewing the overall finish in order to extend the useful life of the roof assembly.
- B. GacoFlex A-3000 White Fast Dry Silicone Enhanced Coating will reflect the sun's radiant heat. The reflectivity of GacoFlex A-3000 Fast Dry Silicone Enhanced Coating will help to keep roof temperatures cooler and thus reduce the demand on air conditioning equipment.
- C. Suitable surfaces to receive the system include steel, galvanized steel, aluminum, copper and pre-finished metal (other than siliconized finishes). The system is designed to renew an existing finish or add a high performance finish to bare metal.

1.2 RELATED SECTIONS

- A. Cast-In-Place Concrete: Division 03 30 00
- B. Flashing and Sheet Metal: Division 07 53 00
- C. Drains, Vents, and Penetrations: Division 07 72 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 the products of a single source manufacturer. The primary manufacturer shall recommend the secondary materials. The manufacturer shall have a minimum of ten (10) years' experience in the manufacture of materials of this type.
- B. The applicator shall have a minimum of five (5) years' experience in the application of waterproofing materials of the type specified. The applicator shall possess a current "Qualified Applicator" Certificate from the specified waterproofing manufacturer.

- C. Pre Bid Conference: Ten (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 of the installation or specifications must be presented at the Pre-Bid Conference. If a change in the specification is accepted, it will be considered as an alternate and will be presented as an addendum issued five (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 manufacture, waterproofing contractor, general contractor, architect and other parties affected by this section. Review the methods and procedures, substrate conditions, scheduling and safety.
- E. The acrylic coating must meet Energy Star performance levels for reflectivity.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store all coating materials in their original unopened containers at 50° - 80°F (10° - 27°C) until they are 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, specific instructions for specific personal protection requirements.
- D. Ventilation: General room ventilation is satisfactory.
- 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 under this section will be free from defects in material and workmanship. Upon notice of a defect in writing to the contractor within one year after completion of the work, the contractor shall, at his own expense, make the necessary repair or replacement of the defective work.
- B. A warranty is available with this system provided it has been installed by a Gaco Western Qualified Applicator and is installed according to this specification. An application for Warranty must be made prior to starting the job.
- C. Protection of building and occupants:
 - 1. All surfaces not to receive the 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 the application preventing collection and moisture.
 - 2. The contractor is to post signs noting a potential overspray hazard within 400' (121.90 m) of the application.
 - 3. All air intake ventilation equipment shall be turned off to prevent fumes from entering the building.
 - 4. All surfaces damaged during the application shall be restored at no expense to the owner.
 - 5. No smoking signs are to be posted as mandated by local fire officials.
- D. Substrate: Proceed with the work as specified only after the substrate construction, preparation, and detail work has been completed.
- E. Equipment: All equipment used during the operations shall be located so as not to adversely affect the daily operations or endanger occupants, structure or materials on-site. All spray equipment must be grounded during the operations.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

Gaco Western, LLC www.gaco.com
800-331-0196

2.2 MATERIALS:

- A. Cleaner: GacoFlex GacoWash Concentrated Cleaner 9:1 concentrate.
- B. Primer: Prime metal surfaces other than copper with GacoFlex E-5320 two component epoxy primer.
- C. Tape: GacoFlex A-3611 Liquid-Tape spray or brush applied seaming tape.
- D. Coating: GacoFlex A-30 Series Fast Dry Silicone Enhanced Coating. The color shall be the manufacturer's standard GacoFlex A-3000 White unless otherwise stated. Sample of other colors, if needed, shall be submitted for the owner's approval.
- E. Other Materials Required: Gaco Western, LLC shall approve all other materials.

PART 3. - EXECUTION

3.1 EXAMINATION:

- A. Verify that the substrate is ready to receive the application; surface is clean, dry and free of substances that could affect the bond.
- B. 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

It is extremely important to get the roof clean and dry.

- A. Inspect Fasteners: Tighten and/or replace all loose metal deck fasteners.
- B. First remove heavy deposits of dirt, leaves and other debris from the roof using broom or air broomer, then inspect the entire roof surface and flashings for any open seams, tears, cuts, etc. Repair these flaws so water is not blown in under membrane during the cleaning process. Pressure wash roof with water and allow to dry completely.
- C. For general cleaning, after the roof is dry from initial cleaning, apply GacoWash Concentrated Cleaner according to label instructions with sprayer of choice, using a 3-4 foot (0.91-1.22 m) arc pattern. A Hudson-type agricultural sprayer, conventional pressure sprayer or airless sprayer is recommended. Allow solution to stand for 10-15 minutes, adding a light mist of water to prevent drying. While it sets, lightly agitate any heavily soiled areas with a broom or brush. Do not allow dirt to settle in low areas. Use a commercial power washer >3,000 psi (20.69 MPa) to remove debris and continue rinsing until all suds are gone. Start at the lowest point of the roof and work towards the highest point. For low-sloped roofs, work away from and then back towards, roof drains. It is important to keep the surface wet until all of the GacoWash and other residue has been completely rinsed off and the surface is clean. After cleaning and rinsing the roof, ensure no dirt or debris is present.
- D. Biological Control: Areas of algae, mildew or fungus on the roof membrane or the existing coating should be treated with a solution of 1 part household bleach and 3 parts water, followed by a power washer rinse using clear water.
- E. Drying: Allow surfaces to thoroughly dry to prevent blistering. Examine roof, paying particular attention to areas of physical damage to determine that residual water has in fact dried before applying GacoFlex S-20 coating.

Note: Drying time depends on weather conditions such as temperature, humidity and air movement. The above drying times assume good weather (70°F / 21°C daytime temperature) and no rain. Conditions of lower temperature and rain will require a longer period for drying.

F. Substrate Condition: Loose paint, powdery or friable rust and scale must be completely removed by power brushing to provide a sound, tight surface. Soft asphalt, and/or bitumastics and silicone caulking shall be completely removed.

Note: Care must be taken to insure that the substrate is structurally sound and is properly prepared. The owner and/or contractor must correct any defect in the condition of the substrate existing prior to the coating; otherwise these defects may adversely affect the condition of the coating over time, necessitating maintenance and/or repair.

3.3 INSTALLATION

A. Exposed Fasteners:

All exposed fasteners must be retightened or replaced as required.

B. General Primer:

1. If there is no rust, apply the GacoFlex E-5320 Primer according to the directions on the containers, at one (1) gallon per 350-400 sq. ft. (3.8 L / 32 to 36 m²).
2. If there is minimal rust, apply GacoFlex E-5320 Primer according to the directions on the container, in two (2) passes of one(1) gallon per 300 sq. ft. (3.8 L / 27 m²), resulting in a total of one (1) gallon per 150 sq. ft. (3.8 L / 14 m²) of finished primer.
3. If there is pronounced rusting, apply GacoFlex E-5320 Primer according to the directions on the container, at one (1) gallon per 300 sq. ft. (3.8 L / 27 m²) in three (3) passes resulting in one (1) gallon per 100 sq. ft. (3.8 L / 9 m²) of finished product.

Allow the primer to dry to the touch, not to exceed seven (7) days prior to applying the coating. If more than seven (7) days pass, clean as noted in Section 3.2A and proceed.

B. Copper Primer: Apply GacoFlex U-5677 Sealer at one (1) gallon per 350 - 400 sq. ft. (3.8 L / 32 to 36 m²) and allow it to dry for four (4) hours minimum, but no more than eight (8) hours maximum prior to applying the coating.

C. Seams: Apply GacoFlex A-3611 Liquid-Tape by airless spray, brush or a power caulking gun. All seams and fasteners must be encapsulated with a minimum of thirty two (32) wet mils (.8 mm) and a maximum of 1/8" (.3 cm) (120 wet mils (3 mm)).

Allow the GacoFlex A-3611 Liquid-Tape to dry, and then inspect the seams. Any seams that show voids, re-apply the GacoFlex A-3611 Liquid-Tape or seal the openings with a single-component acrylic caulk. Refer to GacoFlex A-3611 Product Data Sheet for spray equipment recommendations.

D. Base Coat: Apply one (1) coat of GacoFlex A-30 Series Fast Dry Silicone Enhanced Coating to the entire roof at an application rate of one (1) gallon per 100 square feet. (3.8 L / 9 m²). Achieve sixteen (16) wet mils and a dry film thickness of eight (8) mils.

E. Intermediate Coat: Apply the intermediate coat of GacoFlex A-30 Series Fast Dry Silicone Enhanced Coating to the entire roof at an application rate of ¾ gallon per 100 square feet. (2.8L / 9 m²) Achieve twelve (12) wet mils and a dry film thickness of six (6) mils.

F. Top Coat: Apply (1) coat of GacoFlex A-30 Series Fast Dry Silicone Enhanced Coating to the entire roof area at a rate of ¾ gallon per 100 sq. ft. (2.8 L / 9 m²). Achieve a thickness of twelve (12) wet mils and a dry film thickness of six (6) mils.

3.4 FIELD QUALITY CONTROL

The total will be forty (40) wet and twenty (20) dry mils.

B. Defects: Blisters, pinholes, voids or membrane defects of any kind do not meet application requirements.

C. Variations: Any deviations from the specifications found by the contractor, the Gaco Western LLC Representative or the owner shall be corrected immediately by the contractor.