



GLOBAL Encasement, Inc.

Installation Guide Specification For Preserving EPDM Roofs 07500 GEI – EPDM

1. GENERAL

1.01 SUMMARY

- A. Provide labor, materials, equipment and supervision necessary to install (spray-apply, brush or roller) GLOBAL Encasement, Inc. Roof coating systems as outlined in this specification to preserve and extend the service life of EPDM single-ply roofing and provide energy saving and life-cycle cost benefits.
- B. GLOBAL Encasement, Inc.'s application instructions for each product used are considered part of these specifications and should be followed at all times.

1.02 SUBMITTALS

- A. Submit product data sheets and literature verifying physical properties of materials.
- B. Submit material safety data sheets.

1.03 QUALITY ASSURANCE

- A. Supplier Qualifications: GLOBAL Encasement, Inc.'s fluid applied restoration system for preserving EPDM Roofs, as supplied by GLOBAL Encasement, Inc., is approved for use on the project.
- B. The product manufacturer shall have been in business for a minimum of twenty-one (21) years.
- C. Applicator Qualifications: The applicator shall be approved by GLOBAL Encasement, Inc. to apply the system. GLOBAL Encasement, Inc.'s written verification of applicator approval is required.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Containers and packaging: Deliver materials in original sealed containers, clearly marked with: GLOBAL Encasement, Inc.'s logo; full product name; and lot number(s).
- B. Storage: Store materials between 40°F and 100°F with careful handling to prevent damage to products. If conditions exceed these ranges, special consideration in storage must be taken. Do not store at high temperatures or in direct sunlight.
- C. Protection: Protect all materials from freezing and other damage during transit, handling, storage, and installation.
- D. Verify dates of manufacture and confirm that material is within one-year shelf life.

1.05 PROJECT CONDITIONS

- A. These minimum recommendations for material usage are for ideal conditions. The number of gallons per 100 square feet may need to increase due to uneven application, rough surface texture, wind conditions while spraying and other variables.
- B. Wet insulation must be thoroughly evaluated and then addressed with removal or other measures. Consult a GLOBAL Encasement, Inc. technical consultant regarding the need for moisture surveys and other assessments.
- C. Structural cracks should be referred to the appropriate GLOBAL Encasement, Inc. technical consultant.
- D. Installation guide specifications assume that the deck, if plywood, has no dry rot, and is in sound condition, or has been repaired.

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- E. Do not apply materials unless surface to receive acrylic roofing system is clean, dry and prepared as specified.
- F. Install all material in strict accordance with all published safety or applicable regulations of the manufacturer and local, state, and/or federal agencies that have jurisdiction.
- G. The entire system shall be fully adhered to the surface on which it is applied. Voids left under the system by creating bridges are not acceptable.
- H. Do not proceed with application of coating or sealing materials when temperature is less than 50°F. No coating system shall be applied if weather will not permit it to dry prior to exposure to precipitation or freezing temperatures.
- I. Heavy puddles of coating on the roof are not acceptable.
- J. Instructions for use of all roofing materials and application equipment should be read and followed at all times.
- K. As a general principle, to prevent the ponding of water, install additional drains as necessary.

1.06 DETAIL WORK

- A. This specification does not extensively outline procedures for preparation and finishing of drains, vents, ducts, flashing, parapet walls, sheet metal work, etc. The contractor should outline this work before work commences, and it shall be performed observing good trade practices.

II. PRODUCTS

2.01 GLOBAL ENCASEMENT, INC. RESTORATION SYSTEM

- A. The roofing system is a 100% acrylic, spray, brush or roller applied GLOBAL Encasement, Inc. Restoration System manufactured by GLOBAL Encasement, Inc.
- B. Underwriters Laboratories® 790 Class "A" Ratings TGFU #R15397
- C. Physical properties of cured roofing system.
 - 1. The roofing system shall have good resistance to ponding water.
 - 2. The roofing system shall contain no plasticizers.
 - 3. The roofing system shall contain no migrating fire retardants.
 - 4. The roofing system shall have a Class A fire rating on a noncombustible deck when tested according to the procedures outlined in ASTM-108.
 - 5. The roofing system shall also meet the following physical property requirements:

PROPERTY	ASTM Method	RESULTS
Tensile strength, psi (Max @ 73° F)	D6083	Minimum 200
% Elongation @ Break (73° F)	D6083	Minimum 100
Wet Adhesion to Specified Substrate	D6083	Minimum 2.0 pli
Permeance, perms	D6083	Maximum 15
Volume Solids % Weight Solids %	D6083	>50 >60

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2.02 RELATED MATERIALS

GLOBAL Encasement, Inc. shall approve:

- A. Flashing, adhesives, thinners, elastomeric caulking, compounds, primers, and similar materials. All materials used shall be applied in accordance with GLOBAL Encasement, Inc.'s recommendations.

2.03 EQUIPMENT

GLOBAL Encasement, Inc. materials are prescreened at the factory and can be applied with nylon bristle brushes, roller, or airless spray equipment. Roller nap size will depend on the substrate being encased; ½ inch nap to 1¼ inch is recommended. Airless piston type spray equipment may also be used for application. Equipment selection will depend on the size and nature of the encasement project.

Recommended airless piston-type spray equipment should have at a minimum 3000-psi, 3:1 ratio and a ¾-gallon capacity.

- A. **Graco** - information line is (800) 690-2894.
- B. **Titan Tool Inc.** - information line is (800) 526-5362.
- C. **Equipment Accessories:** Hose: 3/8 inch (9.53 mm) inside diameter (minimum), 1/2 inch (minimum) on long runs.
Guns: Graco Silver or Golden Hydra-mastic guns.
Spray Tips: **RoofCoat™**
Use self-cleaning reversible spray tip size 0.019 to 0.035 (.021 is most often used.)

Note: For alternative equipment recommendations consult the spray equipment manufacturer directly.

III. EXECUTION

3.01 MANUFACTURER'S INSTRUCTIONS

- A. Compliance: Comply with GLOBAL Encasement, Inc.'s product data, including product technical bulletins and product guide specification instructions.

3.02 EXAMINATION

- A. Inspect surfaces that will receive the GLOBAL Encasement, Inc. Restoration System to make sure they are clean, smooth, sound, properly prepared, and free of moisture, dirt, debris, or other contamination.
- B. Verify that all roof penetrations, mechanical equipment, cants, edge metal, and other on-roof items are in place and secure.
- C. Verify that all critical areas around the immediate vicinity of the spray area are suitably protected.
- D. Verify all roof drains are clean and in working order.
- E. Verify that all air conditioning and air intake vents are suitably protected or closed.

3.03 PREPARATION

- A. The surface must be clean, sound, dry and free of any materials that would inhibit proper adhesion of the coating or sealant. Achievement of this condition may require the use of industrial cleaner, scraping, power broom, vacuum or other means, and shall always be performed observing responsible trade practices.
- B. Pressure wash the membrane free of any significant accumulation of dirt and debris prior to applying the base coat. Where unsealed membrane or seam defects are

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- discovered, avoid introducing water beneath the membrane by using lower pressure and/or manual rinse techniques.
- C. All loose seams of existing roof system shall be sealed in accordance with the EPDM manufacturer's recommendations. Then seal all EPDM single ply seams with **GEI Seam Tape**.
 - D. Seal all HVAC ductwork joints as needed with **RoofCoat™**, **AsbestoSafe®** or **Your Last Coat™** and **GEI Fabric** or **GEI Seam Tape**. Coat entire duct assembly with two 1 ½ gallon coats of **RoofCoat™**, **AsbestoSafe®** or **Your Last Coat™** per 100 square feet (24 wet mils = 14 to 15 dry mils).
 - E. Surface must be entirely clean before proceeding with application of base coat.
 - F. Thoroughly clean areas immediately surrounding loose seams or membrane punctures and defects, then seal such areas in accordance following the EPDM manufacturer recommendations.
 - G. When specified by the coating manufacturer, reinforce seams using either **GEI Seam Tape** or **RoofCoat™** and 10" wide **GEI Fabric**. Fabric shall be totally saturated with approximately 3 gallons per 100 square feet (48 to 53 wet mils = 30 to 32 dry mils) of coating.
 - H. Reinforce around skylights, equipment platforms and other roof penetrations using 20" wide **GEI Fabric** and **RoofCoat™**, **AsbestoSafe®** or **Your Last Coat™**. Extend the reinforcement fabric several inches up onto the skylight, etc. edge and then down onto the surrounding roof field. Immediately embed 20" wide **GEI Fabric** into the wet coating, with a second coat of **RoofCoat™** being immediately applied on top of the fabric at the rate of 1 gallon per 100 square feet (16 wet mils = 9 to 10 dry mils). Avoid air pockets and so called "fish-mouths" in the fabric reinforcement.
 - I. Reseal around mechanical equipment, coping seams and other critical junctures using **Globe Caulk™** and, where possible, **GEI Fabric**.
 - J. Remove seam fasteners that are backing out and install new inter-locking mechanical fasteners with seam plates.
 - K. In all valley areas, waterways, drain areas or other areas where potential water accumulation is a concern, apply **RoofCoat™**, **AsbestoSafe®** or **Your Last Coat™** at the rate of 2 gallons per 100 square feet (32 wet mils = 18 to 20 dry mils), approximately 46 inches wide. Immediately embed 40 inch wide **GEI Fabric** into the wet coating, with a second coat of **RoofCoat™** being immediately applied on top of the fabric at the rate of 1 gallon per 100 square feet (16 wet mils = 9 to 10 dry mils). Both the first and second coats shall extend a minimum of 2 inches beyond the edges of the polyester reinforcing fabric. In any large valley area multiple widths of fabric should be used, overlapping them a minimum of 3 inches so that the coating and fabric extend at least six inches up above the potential waterline.
 - L. Allow coating to dry thoroughly (normally 8 to 24 hours depending on weather conditions), before proceeding to application of the remainder of the roofing system as described in section 3.04 of this guide specification.
 - M. Seal all HVAC ductwork joints as needed with **RoofCoat™**, **AsbestoSafe®** or **Your Last Coat™** and **GEI Fabric** or **GEI Seam Tape**. Coat entire duct assembly with 3 gallons per 100 square feet (48 to 53 wet mils = 30 to 32 dry mils).

3.04 APPLICATION

- A. Following the surface cleaning, defect repair and custom reinforcing detailed in Section 3.03; the entire roof shall receive the **RoofCoat™** restoration system consisting of a minimum of 32 dry mils (53 wet mils) of **RoofCoat™** or approximately 3 gallons per 100 square feet .
- B. The first coat shall be spray or roller applied at the rate of 1 1/2 gallons per 100 square feet (24 to 26 wet mils = 14 to 16 dry mils). Allow to thoroughly dry for normally 8 to 12 hours depending on weather conditions.

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- C. After thorough drying of the first coat, the second coat shall be applied using a crosshatch technique, at the rate of 1 1/2 gallons per 100 square feet (24 to 26 wet mils = 14 to 16 dry mils). Allow to thoroughly dry before exposing to foot traffic.
- D. All coating edges shall be cut in evenly in a uniform manner so as to provide an aesthetically pleasing appearance.

3.05 FIELD QUALITY REQUIREMENTS

- A. Manufacturer's Field Services: Inspection by a GLOBAL Encasement, Inc. Authorized Sales Representative can be made to verify the proper installation of the system. Any areas that do not meet the minimum standards for application as specified herein shall be corrected at the contractor's expense. On a case-by-case basis, payment of expenses incurred by the GLOBAL Encasement, Inc. Representative may be the responsibility of the building owner and/or contractor.
- B. Manufacturer's inspection or verification shall not constitute acceptance of responsibility for any improper application of material.
- C. **Disclaimer:** GLOBAL Encasement, Inc.'s employees and/or Authorized Sales Representatives are not responsible for any liabilities resulting from the application or use of these materials.

3.06 CLEANING

- A. Use soapy water while coatings are still wet and wipe clean. Surfaces not intended to receive GLOBAL Encasement, Inc. system shall be protected during the application process. Should this protection not be effective, or not be provided, the respective surfaces shall be restored to their proper conditions by cleaning, repairing or replacing. All debris from completion of work shall be completely removed from the project site.

IV. MATERIALS

The following materials listed in these recommendations are available from:

GLOBAL Encasement, Inc.
701 E. Santa Clara St.
Ventura, CA 93001-5972 USA
(800) 266-3982 / Fax (800) 520-3291
Website: www.encasement.com

1. **RoofCoat™, AsbestoSafe® or Your Last Coat™ TopCoat**
2. **PremeClean™ Industrial Cleaner**
3. **Globe Caulk™**
4. **GEI Seam Tape**
5. **GEI Fabric**

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use are beyond our control. The prospective user should determine the suitability of our materials and installation recommendations before adopting them for commercial use.

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