



Product Evaluation

RC353 | 0415

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: RC-353

Effective Date: December 1, 2012

Revised Date: April 1, 2015

Re-evaluation Date: December 2016

Product Name: Polyfoam 273 Spray Applied Polyurethane Foam Systems (PUF)

Manufacturer: Gaco Western
200 W. Mercer Street, Suite 201
Seattle, WA 98109
(206) 575-0405

Product Description:

- **Polyurethane Foam Plastic Insulation:** Gaco RoofFoam 273 spray applied two component polyurethane foam insulation that complies with ASTM C-1029 with a nominal density of 2.7 lb/ft³ intended for roof applications.
- **Coatings:** The foam is covered with one of the following elastomeric coatings to form a continuous membrane:
 - GacoFlex S-20 (GacoSil S-20) series of single component petroleum free silicone water cure silicone rubber coating. The coating is available in S-2000 (white), S-2022 (gray), S-2048 (tan), and custom colors. This product can be applied by brush, roller or spray applied.
 - GacoFlex S-10 (GacoSil S-10) series of single component silicone water cure silicone rubber coating. The coating is available in S-1000 (white), S-1022 (light gray), S-1048 (tan), and custom colors. This product can be applied by brush, roller or spray applied.
 - GacoRoof S-16 series is a single component silicone elastomeric membrane roof coating that is brush, roller and spray applied. The coating is available in GR-1600 (white), GR-1628 (gray), GR-1626 (green), GR-1670 (light tan), GR-1671 (rustic), GR-1672 (medium blue), GR-1673 (black), GR-1674 (brown), GR-1675 (red).
- **Roof Deck:** The spray-applied polyurethane foam systems may be applied to concrete and steel substrates. Refer to the approved assemblies for description of acceptable substrates.

Limitations:

- **Design Wind Pressures:** The Gaco Western spray-applied polyurethane foam roof covering systems, when installed in accordance with this evaluation report, must have the allowable uplift wind pressure specified in each assembly.
- **Roof Slope:** The roof decks must have a minimum slope of 1/4" in 12".
- **Installation Over an Existing Roof Covering:** Installation of the Gaco Western spray-applied polyurethane foam roof systems over an existing roof covering is not within the scope of this evaluation report.
- **Spray-applied Polyurethane Foam Product Identification:** Each container of polyurethane foam plastic insulation bears a label with Gaco Western name and address; the product name; the component type; the density; the shelf life; and the manufacture date.
- **Application Conditions:** Do not apply Gaco Western SPF systems if the ambient temperature is expected to fall below 50 degrees F, the ambient temperature is within 5 degrees F of the dew point, or if expecting rain before the application has time to cure. Do not apply the coating when dew, condensation, precipitation, or if anticipating freezing temperatures prior to completion of the coating application.

Installation:

- **General:** Satisfy all IRC and IBC requirements, and follow the manufacturer's installation instructions, unless otherwise specified by this product evaluation.
- **Roof Deck:** The roof deck may be concrete and steel. The decks must be free of all grease, oil, loose particles, moisture and other foreign materials. Apply primers in accordance with the manufacturer's installation instructions. All primers must be thoroughly dry and cured prior to foam application.

Concrete Deck Assemblies:

- **Assembly No. 1:**
 - **Design Pressure:** -435 psf
 - **Roof Deck:** Minimum 2500 psi primed structural concrete.
 - **Foam Application:** A minimum of 1" thickness Gaco RoofFoam 273 spray applied polyurethane applied directly to the deck. The polyurethane foam plastic insulation is applied in a 1:1 ratio by volume of the A and B components using foam spraying equipment recommended by Gaco Western LLC.
 - **Coating:** The coating must be one of the following:
 1. GacoFlex S-20 series at an application rate of 1.5 gallons per 100ft²;
 2. GacoFlex S-10 series at an application rate of 2.2 gallons per 100ft²; or
 3. GacoRoof S-16 series at an application rate of 2.1 gallons per 100ft².

Steel Deck Assemblies

- **Assembly No. 2:**
 - **Design Pressure:** -105 psf
 - **Roof Deck:** Minimum 22 gauge, 80 ksi steel deck with a maximum span of 6'-0".
 - **Foam Application:** The deck flutes are filled with RoofFoam 273 spray applied polyurethane. RoofFoam 273 spray applied polyurethane is applied over the top of the ribs to a thickness of 1 inch. The polyurethane foam plastic insulation is applied in a 1:1 ratio by volume of the A and B components using foam spraying equipment recommended by Gaco Western LLC.
 - **Coating:** The coating must be one of the following:
 1. GacoFlex S-20 series at an application rate of 1.5 gallons per 100ft²;
 2. GacoFlex S-10 series at an application rate of 2.2 gallons per 100ft²; or
 3. GacoRoof S-16 series at an application rate of 2.1 gallons per 100ft².

Note: Keep the manufacturer's installation instructions at the job site during the application process. Gaco Western Applicators must perform the application. Use corrosion resistant fasteners as specified in the IRC, the IBC, and the Texas Revisions.