



Product Evaluation

RC476 | 0216

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-476

Effective Date: February 1, 2016

Re-evaluation Date: December 2019

Product Name: PREMISEAL™ 280 and 300 Spray Applied Polyurethane Foam Roof Systems

Manufacturer: Premium Spray Products, Inc.
1255 Kennestone Circle #200
Marietta, GA 30066
Telephone: (770) 528-9556
www.premiumspray.com

General Description:

Polyurethane Foam Plastic Insulation: PREMISEAL™ 280 and 300 are two-component, closed cell, spray-applied polyurethane rigid foam roof systems. The PREMISEAL™ 280 has a nominal density of 2.8 lb/ft³ and the PREMISEAL™ 300 has a nominal density of 3.0 lb/ft³.

Coatings: The Foam is covered with one of the following elastomeric coatings to form a continuous membrane:

PREMICOTE 1400, and PREMICOTE 1500, are 100 percent free acrylic, single component, water based, elastomeric coatings used for the protection of the spray-applied polyurethane foam system. These products can be applied by brush, roller or spray applied.

PREMICOTE 2000, PREMICOTE 2100, SCM 3400, and SCM 3500 are high solids, single component, moisture cure fluid applied silicone coatings used for the protection of the spray-applied polyurethane foam system. These products can be applied by brush, roller or spray applied.

Limitations:

Roof Deck: The spray-applied polyurethane foam systems may be applied to concrete, steel and wood substrates. Refer to the approved assemblies for description of acceptable substrates.

Design Wind Pressure: The PREMISEAL™ 280 and 300 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 PREMISEAL™ 280 and 300 spray-applied polyurethane foam roof systems over an existing roof covering is not within the scope of this evaluation report.

Product Identification: Each container of the polyurethane foam plastic insulation bears a label with Premium Spray Products, Inc. name and address; the product name, the component type; the density; the shelf life; and the manufacture date.

Application Conditions: PREMISEAL™ 280 and 300 spray-applied polyurethane foam roof systems must not be applied if the ambient temperature is expected to fall below 5 degrees F within dew point, or if rain is expected before the application has time to cure. The coating must not be applied when dew, condensation, precipitation or freezing temperatures are anticipated prior to completion of the coating application or cure.

Installation:

General: All International Residential Code (IRC) and the International Building Code (IBC) requirements must be satisfied and the manufacturer's installation instructions followed, unless otherwise specified by this evaluation report.

Roof Deck: The roof deck may be concrete, steel or wood. Remove any contaminants that may interfere with total adhesion of the sprayed polyurethane foam to the intended substrate. The roof deck surface must be free of loose particles, rust, scale, grease, dirt, or other contaminants.

Primers: Primers must be applied in accordance with the manufacturer's installation instructions. All primers must be thoroughly dry and cured prior to foam application.

Concrete Deck Assembly:

Assembly No. 1	
Design Pressure	-135 psf
Roof Deck	Minimum 2500 psi primed structural concrete with one or two ply asphaltic vapor barrier.
Foam Application	A maximum of 3" thickness PREMISEAL™ 280 or PREMISEAL™ 300 spray-applied polyurethane foam uniformly applied to the roof deck in accordance with the manufacturer's installation instructions.
Coating	PREMICOTE 1500 at an application rate of 3.5 gallons per 100 ft ² in two equal coats

Concrete Deck Assembly (cont.):

Assembly No. 2	
Design Pressure	-495 psf
Roof Deck	Minimum 2500 psi primed structural concrete.
Foam Application	A maximum of 3" thickness PREMISEAL™ 280 or PREMISEAL™ 300 spray- applied polyurethane foam uniformly applied to the roof deck in accordance with the manufacturer's installation instructions.
Coating	PREMICOTE 1500 at an application rate of 3.5 gallons per 100 ft2 in two equal coats and No. 11 granules at an application rate of 40 pounds per 100 square feet.

Assembly No. 3	
Design Pressure	-92.5 psf
Roof Deck	Minimum 2500 psi primed structural concrete with one or two ply asphaltic vapor barrier.
Foam Application	1" – 6" thickness PREMISEAL™ 280 or PREMISEAL™ 300 spray-applied polyurethane foam uniformly applied to the roof deck in accordance with the manufacturer's installation instructions.
Coating	SCM 3400 at an application rate of 2.9 gallons per 100 ft2 in two equal coats, and No.11 granules at an application rate of 40 pounds per 100 ft2.

Assembly No. 4	
Design Pressure	-135 psf
Roof Deck	Minimum 2500 psi primed structural concrete.
Foam Application	A maximum of 3" thickness PREMISEAL™ 280 or PREMISEAL™ 300 spray- applied polyurethane foam uniformly applied to the roof deck in accordance with the manufacturer's installation instructions.
Coating	SCM 3400 at an application rate of 2.9 gallons per 100 ft2 in two equal coats, and No.11 granules at an application rate of 40 pounds per 100 ft2.

Assembly No. 5	
Design Pressure	-495 psf
Roof Deck	Minimum 2500 psi primed structural concrete.
Foam Application	A maximum of 3" thickness PREMISEAL™ 280 or PREMISEAL™ 300 spray-applied polyurethane foam uniformly applied to the roof deck in accordance with the manufacturer's installation instructions.
Coating	PREMICOTE 1500 at an application rate of 3.5 gallons per 100 ft2 in two equal coats.

Concrete Deck Assembly (cont.):

Assembly No. 6	
Design Pressure	-495 psf
Roof Deck	Minimum 2500 psi primed structural concrete.
Foam Application	A maximum of 3" thickness PREMISEAL™ 280 or PREMISEAL™ 300 spray-applied polyurethane foam uniformly applied to the roof deck in accordance with the manufacturer's installation instructions.
Coating	SCM 3500 at an application rate of 2.5 gallons per 100 ft2 in two equal coats, and No.11 granules embedded at an application rate of 25 pounds per 100 ft2.

Steel Deck Assembly:

Assembly No. 1	
Design Pressure	-45 psf
Roof Deck	Minimum 22 gauge, 33 ksi steel deck with maximum span of 6'-0"
Foam Application	1" – 6" thickness PREMISEAL™ 280 or PREMISEAL™ 300 spray-applied polyurethane foam uniformly applied to the roof deck in accordance with the manufacturer's installation instructions.
Coating	PREMICOTE 1500 at an application rate of 3.5 gallons per 100 ft2 in two equal coats.

Assembly No. 2	
Design Pressure	-105 psf
Roof Deck	Minimum 20 gauge, 80 ksi steel deck with maximum span of 6'-0".
Foam Application	1" – 6" thickness PREMISEAL™ 280 or PREMISEAL™ 300 spray-applied polyurethane foam uniformly applied to the roof deck in accordance with the manufacturer's installation instructions.
Coating	PREMICOTE 1500 at an application rate of 3.5 gallons per 100 ft2 in two equal coats and No. 11 granules at an application rate of 40 pounds per 100 square feet.

Assembly No. 3	
Design Pressure	-105 psf
Roof Deck	Minimum 20 gauge, 33 ksi steel deck with maximum span of 6'-0", or Minimum 22 gauge, 33 ksi steel deck with maximum span of 5'-3.6".
Foam Application	1" – 6" thickness PREMISEAL™ 280 or PREMISEAL™ 300 spray-applied polyurethane foam uniformly applied to the roof deck in accordance with the manufacturer's installation instructions.
Coating	PREMICOTE 1500 at an application rate of 3.5 gallons per 100 ft2 in two equal coats.

Steel Deck Assembly (cont.):

Assembly No. 4	
Design Pressure	-45 psf
Roof Deck	Minimum 22 gauge, 33 ksi steel deck with maximum span of 6'-0".
Foam Application	1" – 6" thickness PREMISEAL™ 280 or PREMISEAL™ 300 spray-applied polyurethane foam uniformly applied to the roof deck in accordance with the manufacturer's installation instructions.
Coating	SCM 3400 at an application rate of 2.9 gallons per 100 ft2 in two equal coats, and No.11 granules at an application rate of 40 pounds per 100 ft2.

Assembly No. 5	
Design Pressure	-105 psf
Roof Deck	Minimum 22 gauge, 80 ksi steel deck with maximum span of 6'-0".
Foam Application	1" – 6" thickness PREMISEAL™ 280 or PREMISEAL™ 300 spray-applied polyurethane foam uniformly applied to the roof deck in accordance with the manufacturer's installation instructions.
Coating	SCM 3400 at an application rate of 2.9 gallons per 100 ft2 in two equal coats, and No.11 granules at an application rate of 40 pounds per 100 ft2.

Assembly No. 6	
Design Pressure	-105 psf
Roof Deck	Minimum 20 gauge, 33 ksi steel deck with maximum span of 6'-0", or Minimum 22 gauge, 33 ksi steel deck with maximum span of 5'-3.6".
Foam Application	1" – 6" thickness PREMISEAL™ 280 or PREMISEAL™ 300 spray-applied polyurethane foam uniformly applied to the roof deck in accordance with the manufacturer's installation instructions.
Coating	SCM 3400 at an application rate of 2.9 gallons per 100 ft2 in two equal coats, and No.11 granules at an application rate of 40 pounds per 100 ft2.

Wood Deck Assembly:

Assembly No. 1	
Design Pressure	-67.5 psf
Roof Deck	Minimum 19/32" plywood deck.
Anchor Sheet	One layer of GAF Stratavent base sheet primed and mechanically fastened to deck with 1-1/4" ring shank roofing nails and 5/8" diameter tin caps spaced 7" o.c. in the 4" side laps and 7" o.c. in two staggered field rows. Refer to manufacturer's installation instructions as supplemental guide for attachment.
Foam Application	A minimum of 2" thickness PREMISEAL™ 280 or PREMISEAL™ 300 spray-applied polyurethane foam uniformly applied to the roof deck in accordance with the manufacturer's installation instructions.
Coating	PREMICOTE 2000 at an application rate of 3.5 gallons per 100 ft2 in two equal coats, and No.11 granules at an application rate of 25 pounds per 100 ft2 embedded into wet topcoat.

Wood Deck Assembly (Cont.):

Assembly No. 2	
Design Pressure	-75 psf
Roof Deck	Minimum 19/32" plywood deck.
Insulation Layer	Minimum 1/2" SecuRock insulation board. The insulation board is to be secured to the roof deck with minimum #14 Screws with 3" diameter metal insulation plates. A minimum of 16 fasteners must be used per 4' x 8' board. Refer manufacturer's installation instructions as supplemental guide for attachment.
Foam Application	A minimum of 2" thickness PREMISEAL™ 280 or PREMISEAL™ 300 spray-applied polyurethane foam uniformly applied to the roof deck in accordance with the manufacturer's installation instructions.
Coating	PREMICOTE 2000 at an application rate of 3.5 gallons per 100 ft ² in two equal coats, and No.11 granules at an application rate of 25 pounds per 100 ft ² embedded into wet topcoat.

Note: Keep the manufacturer's installation instructions available on the job site during installation. Use corrosion resistant fasteners as specified in the IRC, the IBC, and the Texas Revisions.