

Product Evaluation

RC619 | 0120

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-619

Effective Date: January 1, 2020

Re-evaluation Date: January 2024

Product Name: Ultra-Thane Foam System – Spray Applied Roof Covering

Manufacturer: General Coatings Manufacturing Corp.
1220 E. North Avenue
Fresno, CA, 93725
(559) 495-4004

General Description:

The Ultra-Thane Foam System is a spray-applied polyurethane foam roofing system. The spray-applied foam roofing system is applied to concrete roof decks, steel roof decks, and wood structural panel roof decks. The Ultra-Thane Foam System consists of the following components:

Ultra-Thane 230 Foam: Roofing foam that consists of two-components. Component "A" is an isocyanate that is available in 55-gallon containers. Component "B" is a polyol (resin) that is also available in 55-gallon containers. Each component has a shelf life of 6-months when stored at temperatures between 50°F and 80°F. The components are applied in a 1:1 ratio and spray-applied to form a closed cell, rigid foam plastic, roof covering

Ultra-Flex 1000 Coating: Single component acrylic elastomeric coating. Designed to adhere to polyurethane foam. The coating is available in 55-gallon containers and has a shelf life of 12-months when stored at temperatures between 32°F and 100°F.

Ultra-Guard 5700 Coating: Single component silicone elastomeric coating. Designed to adhere to polyurethane foam. The coating is available in 5-gallon containers, 50-gallon containers, and 250-gallon totes, and has a shelf life of 12-months when stored at temperatures between 40°F and 80°F.

Limitations:

Design Wind Pressures: The Ultra-Thane spray-applied polyurethane foam roof covering system, when installed in accordance with this evaluation report, will have an allowable uplift wind pressure rating that is specified in the Wind Resistant Assemblies section of this evaluation report.

NOTE: The allowable uplift wind pressures are for the roof covering only and its application to the roof deck. The roof deck and the supporting structural elements for the roof deck must be designed to withstand the applicable wind pressures.

Roof Slope: The roof deck must have a minimum slope of 1/4" in 12". The maximum roof slope is as specified in the Wind Resistant Assemblies section of this evaluation report.

Installation Over an Existing Roof Covering: Installation of the Ultra-Thane spray-applied polyurethane foam roof system over an existing roof covering is not within the scope of this evaluation report.

Product Identification: Containers for the individual components bear a label that has the manufacturer's name (General Coatings Manufacturing Corp.); their address and telephone number; the component name; and the use instructions.

Installation:

General: The Ultra-Thane foam roof covering must comply with the requirements of the IRC, the IBC, and must be installed as specified in the manufacturer's installation instructions and this product evaluation report. A copy of the manufacturer's installation instructions must be available at the jobsite during installation.

Roof Deck: The roof deck must be free of all grease, oil, loose particles, moisture and other foreign materials. Primers must be applied in accordance with the manufacturer's installation instructions. All primers must be thoroughly dry and cured prior to foam application.

Application Conditions: The foam must only be applied when the substrate temperature is at least 50°F; the ambient temperature is at least 50°F, and the wind speed is less than 15 miles per hour.

Wind Resistant Assemblies:**Assembly No. 1 (Concrete Roof Deck):****Design Pressure:** -285 psf

Roof Deck: Minimum 3000 psi normal weight, steel reinforced, concrete. Note: The roof deck and the supporting structural elements for the roof deck must be designed to withstand the applicable wind pressures.

Maximum Roof Slope: 4:12

Foam: Minimum 2" thick Ultra-Thane foam. The polyurethane foam is applied in a 1:1 ratio by volume of the A and B components using foam spraying equipment recommended by General Coatings Manufacturing.

Coating: The coating must be one of the following:

1. Ultra-Flex 1000. Application Rate: Two (2) coats at 1-1/2 gallons per 100 sq. ft. each
2. Ultra-Guard 5700. Application Rate: One (1) coat at 1-1/5 gallon per 100 sq. ft.

Assembly No. 2 (Steel Roof Deck):**Design Pressure:** -225 psf

Roof Deck: Minimum 2", 22-gauge galvanized steel fluted deck. The roof deck and the supporting structural elements for the roof deck must be designed to withstand the applicable wind pressures

Maximum Roof Slope: 4:12

Foam: Minimum 1" thick (above the top of the deck) Ultra-Thane foam. The polyurethane foam is applied in a 1:1 ratio by volume of the A and B components using foam spraying equipment recommended by General Coatings Manufacturing.

Coating: The coating must be one of the following:

1. Ultra-Flex 1000. Application Rate: Two (2) coats at 1-1/2 gallons per 100 sq. ft. each
2. Ultra-Guard 5700. Application Rate: One (1) coat at 1-1/5 gallon per 100 sq. ft.

Assembly No. 2 (Wood Roof Deck):**Design Pressure:** -330 psf

Roof Deck: Minimum 15/32" plywood. All plywood edges must be supported by blocking or have tongue-and-groove joints. The roof deck and the supporting structural elements for the roof deck must be designed to withstand the applicable wind pressures.

Maximum Roof Slope: 1/2:12

Foam: Minimum 2" thick Ultra-Thane foam. The polyurethane foam is applied in a 1:1 ratio by volume of the A and B components using foam spraying equipment recommended by General Coatings Manufacturing.

Coating: The coating must be one of the following:

1. Ultra-Flex 1000. Application Rate: Two (2) coats at 1-1/2 gallons per 100 sq. ft. each
2. Ultra-Guard 5700. Application Rate: One (1) coat at 1-1/5 gallon per 100 sq. ft.

Note: The manufacturer's installation instructions must be available on the job site during the application process. Only accredited applicators certified by General Coatings Manufacturing Corp must be allowed to perform the application. All fasteners used must be corrosion resistant as specified in the IRC and the IBC.