

Product Evaluation

RC324 | 0622

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-324

Effective Date: June 1, 2022

Re-evaluation Date: March 2026

Product Name: FOAM-LOK LPA 2500, 2800, and 3000 Spray Applied Foam Roof Covering Systems

Manufacturer: Huntsman Building Solutions
3315 East Division St.
Arlington, TX 77032
(877) 636-1633

General Description:

The FOAM-LOK LPA 2500, LPA 2800, and LPA 3000 are two-component, closed-cell, spray-applied polyurethane insulation systems. The LPA 2500 has a product density of 2.5 pcf. The LPA 2800 has a product density of 2.8 pcf, and the LPA 3000 has a product density of 3.0 pcf.

Limitations:

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

Coatings: The coatings recognized in this report for use in the FOAM-LOK spray-applied polyurethane foam insulation roofing systems are the Thermo-Flex 1000 acrylic coating systems. The Thermo-Flex 1000 is a 100 percent acrylic, fire retardant, thixotropic, acrylic elastomeric coating used for the protection of the polyurethane foam insulation systems.

Design Wind Pressures: The FOAM-LOK LPA 2500, LPA 2800, and LPA 3000 polyurethane insulation systems, when installed in accordance with this evaluation report, shall have the allowable uplift wind pressure specified in each assembly.

Installation Over an Existing Roof Covering: Installation of the FOAM-LOK LPA 2500, LPA 2800, and LPA 3000 polyurethane insulation systems over an existing roof covering is not within the scope of this evaluation report.

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

Application Conditions: Do not apply the FOAM-LOK LPA 2500, LPA 2800, and LPA 3000 polyurethane insulation systems if the ambient temperature is expected to fall below 50 degrees F. Do not apply if weather conditions will not permit complete cure before rain, dew, fog, or freezing temperatures.

Installation:

General: All IRC and IBC requirements must be satisfied, and the manufacturer's installation instructions followed, unless otherwise specified, by this product evaluation.

Roof Slope: Positive drainage of the roof deck must be provided.

Roof Deck: The roof deck must be concrete or steel. Remove any contaminants that will interfere with total adhesion of the sprayed polyurethane to the 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 the foam application.

CONCRETE DECK ASSEMBLIES

Assembly No. 1

Design Pressure: -355 psf

Roof Deck: Minimum 2500 psi cast-in-place or pre-cast structural concrete.

Foam Application: A minimum of 2" thickness of FOAM-LOK LPA 2500, LPA 2800, or LPA 3000 polyurethane insulation uniformly applied directly to the roof deck in accordance with the manufacturer's installation instructions.

Coating: The Thermo-Flex 1000 acrylic coating system shall be applied in accordance with the manufacturer's installation instructions.

STEEL DECK ASSEMBLIES

Assembly No. 1

Design Pressure: -112.5 psf

Roof Deck: Minimum 22 gauge, 33 ksi steel deck secured to steel joists spaced 6 feet on center. The steel deck is secured with Tek 5 SD screws located in each bottom flute along the joists. The side laps are secured with No. 12 self-drilling screws at 12" on center.

Foam Application: The FOAM-LOK LPA 2500, LPA 2800, or LPA 3000 polyurethane insulation fills the deck flutes and is applied uniformly over a polyester mesh fabric loose laid over the steel deck previously primed with Lapolla Therm-o-Prime to a minimum 1" thickness over the deck flutes in accordance with the manufacturer's installation instructions.

Coating: The Thermo-Flex 1000 acrylic coating system shall be applied in accordance with the manufacturer's installation instructions.

Assembly No. 2

Design Pressure: -120.0 psf

Roof Deck: Minimum 22 gauge, 33 ksi steel deck secured to steel joists spaced 6 feet on center. The steel deck is secured with Tek 5 SD screws located in each bottom flute along the joists. The side laps are secured with No. 12 self-drilling screws at 12" on center.

Foam Application: The FOAM-LOK LPA 2500, LPA 2800, or LPA 3000 polyurethane insulation fills the deck flutes and is applied uniformly over the steel deck previously primed with Lapolla Therm-o-Prime to a minimum 1" thickness over the deck flutes in accordance with the manufacturer's installation instructions.

Coating: The Thermo-Flex 1000 acrylic coating system shall be applied in accordance with the manufacturer's installation instructions.

WOOD DECK ASSEMBLIES

Assembly No. 1

- Design Pressure:** -90.0 psf
- Roof Deck:** Minimum nominal 19/32" plywood deck.
- Insulation Layer:** Minimum 1/2" SecuRock insulation board. The insulation board is primed with Lapolla Therm-o-Prime in accordance with the manufacturer's installation instructions and secured to the roof deck with minimum No. 14 screws with 3" diameter metal insulation plates. A minimum of 16 fasteners must be used per 4'x8' insulation board.
- Foam Application:** A minimum of 1" thickness of FOAM-LOK LPA 2500, LPA 2800, or LPA 3000 polyurethane insulation uniformly applied over the insulation board in accordance with the manufacturer's installation instructions.
- Coating:** The Thermo-Flex 1000 acrylic coating system must be applied in accordance with the manufacturer's installation instructions.

Assembly No. 2

- Design Pressure:** -105 psf
- Roof Deck:** Minimum nominal 19/32" plywood deck.
- Base Sheet:** One layer of GAF Stratovent Eliminator perforated venting base sheet. The base sheet is primed with Lapolla Therm-o-Prime in accordance with the manufacturer's installation instructions and secured to the roof deck with minimum 1-1/4" ring shank nails with 3" diameter metal plates. The fasteners are spaced a maximum of 7" on center at the side laps and two staggered rows in the field spaced a maximum of 7" on center.
- Foam Application:** A minimum of 2" thickness of FOAM-LOK LPA 2500, LPA 2800, or LPA 3000 polyurethane insulation uniformly applied over the base sheet in accordance with the manufacturer's installation instructions.
- Coating:** The Thermo-Flex 1000 acrylic coating system must be applied in accordance with the manufacturer's installation instructions.

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