

Product Evaluation

RC618 | 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-618

Effective Date: January 1, 2020

Re-evaluation Date: January 2024

Product Name: SOPREMA Waterproofing System Roof Covering with Wausau Lok-Down Pavers

Manufacturer: SOPREMA, Inc.
310 Quadral Drive
Wadsworth, OH 44281
(800) 356-3521

General Description:

This evaluation report is for SOPREMA waterproofing system roof coverings installed with Wausau Lok-Down pavers. The roof covering is installed over lightweight concrete roof decks.

The SOPREMA Waterproofing System roof covering must be installed in accordance with the installation instructions published by SOPREMA and this evaluation report. Flashing and detailing must be in accordance with SOPREMA published installation instructions using SOPREMA specified materials to establish a watertight condition.

The Wausau Lok-Down pavers must be installed in accordance with the installation instructions published by Wausau and this evaluation report.

Roof Covering Components:

Colvent Flam 180 TG: A non-woven polyester reinforced, modified bitumen membrane with a burn-off film on the back surface and a plastic film top surface. It is applied by heat welding.

Sopralene Flam 180 GR: A non-woven polyester reinforced, modified bitumen membrane with a plastic burn-off film on the back surface and mineral granules on the top surface. It is applied by heat welding.

Elastocol 500: ASTM D41 asphalt primer.

High Velocity Membrane Adhesive II (HVMA II): A two-component, solvent-free, cold press adhesive.

Wausau Lok-Down Paver: A proprietary concrete paver; 24" x 24" x 2"; 8,000 psi minimum compressive strength.

Wausau Lok-Down Terra-Stand Pedestal: A proprietary stand made of high impact, copolymer polypropylene. Adjustable to provide a level surface for the pavers.

Wausau Lok-Down Base Plate: A proprietary base plate. 7" x 7". Made of high impact, copolymer polypropylene. Secured to either the roof covering or the Terra Stand.

Wausau Lok-Down Top Plate: A proprietary top plate. 7" x 7". Made of high impact, copolymer polypropylene. Used to secure the paver to the base plate.

Limitations:

The roof covering is limited to installations over lightweight concrete roof decks.

For installations over existing lightweight concrete roof decks in a re-roof (tear off) installation, the existing concrete roof deck must be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, then field uplift testing must be conducted on mock-ups of the proposed new roof covering.

This evaluation report pertains to the SOPREMA components making up the waterproofing assembly and the performance of the waterproofing assembly when used in conjunction with non-SOPREMA components as outlined herein.

Design Wind Pressures: The roof covering assembly, when installed in accordance with this evaluation report, will have allowable uplift wind pressure ratings that are specified in the Wind Resistant Assemblies section of this evaluation report.

The design pressures listed are applicable to all roof pressure zones (i.e., field, perimeters, and corners).

Roof Slope: The roof deck must have a minimum slope of 1/4" in 12". The maximum roof slope is specified by the manufacturer.

Installation Over an Existing Roof Covering: Installation of the SOPREMA Waterproofing System over an existing roof covering is not within the scope of this evaluation report.

Installation:

General: The roof covering assembly must comply with the requirements of the IRC, the IBC, and must be installed as specified in the manufacturer's installation instructions (SOPREMA and Wausau) 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 lightweight concrete. 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.

Inspections: Inspection of the SOPREMA Waterproofing System must take place before the installation of the Wausau Lok-Down pavers. The SOPREMA Waterproofing System must be flood tested in accordance with ASTM D5957 prior to the installation of the Wausau Lok-Down pavers.

Wind Resistant Assemblies:

Assembly No. 1:

Design Pressure: -122.5 psf

Structural Deck: Structural concrete. Minimum 2,500 psi compressive strength.

LWC Deck: Celcore MF cellular lightweight concrete. Minimum 300 psi. Minimum 2" thick. Treated with Celcore PVA compound

Primer: The LWC deck is primed with Elastocol 500 at an application rate of 1 gal/sq.

Base Sheet: Colvent Flam 180 TG. Torch applied.

Membrane: Sopralene Flam 180 GR. Torch applied.

Surfacing: Wausau Lok-Down Paver atop Terra Stand Pedestal. The Terra Stand Pedestal base is bonded to the top surface of the waterproofing system with High Velocity Membrane Adhesive II at 150 ml per base. The Terra Stand Pedestal is secured to the base. The Lok-Down Base Plate is bonded to the top surface of the Terra Stand Pedestal with High Velocity Membrane Adhesive II at 120 ml per base. The Lok-Down Pavers are secured in place using the Lok-Down Top Plates and screws.

Assembly No. 2:**Design Pressure:** -142.5 psf**Structural Deck:** Structural concrete. Minimum 2,500 psi compressive strength.**LWC Deck:** Celcore MF cellular lightweight concrete. Minimum 300 psi. Minimum 2" thick. Treated with Celcore PVA compound**Primer:** The LWC deck is primed with Elastocol 500 at an application rate of 1 gal/sq.**Base Sheet:** Colvent Flam 180 TG. Torch applied.**Membrane:** Sopralene Flam 180 GR. Torch applied.**Surfacing:** Wausau Lok-Down Paver in Lok-Down Base Plates. The Lok-Down Base Plates are bonded to the top surface of the waterproofing system with High Velocity Membrane Adhesive II at 150 ml per base. The Lok-Down Pavers are secured in place using the Lok-Down Top Plates and screws.**Note:** The manufacturer's installation instructions must be available on the job site during the application process. All fasteners used must be corrosion resistant as specified in the IRC and the IBC.