TDI | Texas Department of Insurance

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Product Evaluation

RC262 | 0620

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-262

Effective Date: June 1, 2020
Re-evaluation Date: June 2024

Product Name: Carlisle SynTec Sure-Weld TPO and Sure-Flex PVC Roofing Systems

Manufacturer: Carlisle SynTec
P.O. Box 7000
Carlisle, PA 17013
(800) 479-6832

General Description:
Carlisle SynTec TPO roof membranes are nominal 0.045" thick or thicker flexible TPO (thermoplastic olefin) sheets. Carlisle SynTec PVC roof membranes are nominal 0.050" thick or thicker flexible PVC (polyvinyl chloride) sheets.

Limitations:
Roof Slope: The roof must have a minimum slope of 1/4:12.
Roof Framing: The roof framing members must be spaced a maximum of 24" o.c.

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

TPO Assembly No. 1

Design Wind Pressure: -67.5 psf

Roof Deck: The roof deck must consist of 19/32" thick or greater plywood.

Insulation: A minimum of 1.5" thick polyisocyanurate roof insulation. The roof insulation is secured with four (4) #12 insulation fasteners and 3" steel plates per every 4' x 8' board.

Membrane: One ply of Carlisle Sure-Weld TPO membrane, 6'-0" wide sheet. The membrane is secured to the roof deck with Carlisle HP-X fasteners and 2-3/8" barbed plates spaced 6" o.c. along the seams of the membrane. The overlapping membrane edge is sealed with a 1-1/2" wide heat weld.

TPO Assembly No. 2

Design Wind Pressure: -52.5 psf

Roof Deck: The roof deck must consist of 19/32" thick or greater plywood.

Insulation: A minimum of 1.5" thick polyisocyanurate roof insulation. The roof insulation is secured with four (4) #12 insulation fasteners and 3" steel plates per every 4' x 8' board.

Membrane: One ply of Carlisle Sure-Weld TPO membrane, 8'-0" wide sheet. The membrane is secured to the roof deck with Carlisle HP-X fasteners and 2-3/8" barbed plates spaced 6" o.c. along the seams of the membrane. The overlapping membrane edge is sealed with a 1-1/2" wide heat weld.

PVC Assembly No. 1

Design Wind Pressure: -60 psf

Roof Deck: The roof deck must consist of 19/32" thick or greater plywood.

Insulation: A minimum of 1.5" thick polyisocyanurate roof insulation. The roof insulation is secured with four (4) #12 insulation fasteners and 3" steel plates per every 4' x 8' board.

Membrane: One ply of Carlisle Sure-Flex PVC membrane, 81" wide sheet. The membrane is secured to the roof deck with Carlisle HP-X fasteners and 2-3/8" barbed plates spaced 6" o.c. along the seams of the membrane. The overlapping membrane edge is sealed with a 1-1/2" wide heat weld.

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.