

Product Evaluation

RC396 | 0720

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-396

Effective Date: July 1, 2020

Re-evaluation Date: July 2024

Product Name: SMI 1.5 SL 550 24 Gauge Snap Lock Standing Seam Steel Roof Panel Installed Over a Plywood Deck

Manufacturer: Sheffield Metals International
5467 Evergreen Parkway
Sheffield Village, OH 44054
(800) 283-5262

General Description:

The SMI 1.5 SL 550 is a snap lock standing seam metal roof system. The panel is made of 24-gauge galvalume steel. The vertical leg of the panel measures 1 1/2" in height and has a maximum panel width of 19". The panel can be formed in continuous lengths and interlocks to adjoining panels with a female rib that snaps over the male rib locking the panels together.

Limitations:

Roof Decking: The metal roof panels must be installed over a minimum of 15/32" thick plywood deck.

Roof Deck Attachment: The roof deck must meet or exceed the uplift requirements of the IRC and IBC, and the deck must be installed in a manner to resist lateral loads if required.

Installation Over an Existing Roof Covering: Installation over an existing roof covering is not permitted.

Roof Slope: The minimum roof slope is 2:12.

Design Wind Pressure: The design wind pressure limitations are specified in Table 1.

Table 1. SMI 1.5 SL 550 24 Gauge Snap Lock Standing Seam Steel Roof Panel Installed Over a Plywood Deck

Design Wind Pressure (psf)	Panel Seam	Panel Clip	Clip Spacing	Clip Fastener
-129.25	SMI 1.5 SL 550	SMI 1 1/2" SnapLock 550, 20 gauge G-90 galvanized steel, (1.610" x 2.010" x 2" long)	24" Max	(2) #10 x 1" Weather Gard pancake head screws, Type A

Installation:

General Installation Requirements:

The metal roof panels must be installed in accordance with the manufacturer's recommended installation instructions and this evaluation report.

Underlayment: A minimum of one layer of No. 30 (Type II) asphalt felt must be used. The underlayment used must comply with one or more of the following: ASTM D 226, ASTM D 4869, or ASTM D 1970. The felt must be installed with a minimum of 4" laps. The felt must be fastened to the roof deck with corrosion resistant fasteners in accordance with the manufacturer's installation instructions and the IRC and the IBC. Fasteners must be applied along the overlaps not farther apart than 36" on center.

Anchorage to Roof Decking: The metal roof panels must be fastened in accordance with Table 1. The metal roofing panels must be secured to the roof deck with the clip specified in Table 1, and the clips are spaced at a maximum of 24" on center. The clips are secured with two (2) #10 x 1" Weather Gard pancake head screws, Type A. The screws must be long enough to penetrate complete through the roof deck. The female leg of the adjacent roof panel is snap-locked over the clips and male leg of the panel.

Trims, Closures, and Accessories: Components, such as the eave trim, rake trim, ridge trim, hip trim, and valley trim must be installed as required by the manufacturer.

Panel Ends and End Laps: As required by the manufacturer.

Panel Edges: As required by the manufacturer.

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.