

Product Evaluation

RC742 | 0224

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-742

Effective Date: February 1, 2024

Re-evaluation Date: February 2028

Product Name: 7/8" Corrugated 24-gauge Metal Panel Installed over Steel Purlins

Manufacturer: Western States Metal Roofing
901 W Watkins Street
Phoenix, AZ 85007
(602) 495-0048

General Description:

The 7/8" Corrugated metal roof panel is a minimum 24-gauge Galvalume steel panel with an optional paint finish. The 24-gauge metal roof panels are 0.0236". The metal roofing panels have a maximum coverage of 34.67". The 24-gauge metal roofing panels conform to ASTM A792, with a 50,000 psi yield point.

Limitations:

Framing: The metal panels must be installed over open 16-gauge steel purlins as specified in Table 1.

New Roof Framing Attachment: The roof framing must meet or exceed the uplift requirements of the IRC or the IBC and must be as required for resistance for wind loads.

Roof Slope: The metal roofing panels may be installed on roofs with a roof slope as low as 3:12.

Design Pressure: The design pressure uplift load resistance must be as specified in Tables 1.

Installation over Existing Roof Covering: Not Permitted

Table 1. Attachment of Minimum 24-gauge Multi-Rib Steel Roof Panels to Steel Purlins

Design Wind Pressure	Purlins	Fastener Spacing
-119.6 psi	Minimum 16-gauge 3'-0" on center	3'-0" on center

Installation:

General: The metal roofing panels must be installed in accordance with the manufacturer's installation instructions and this product evaluation report.

Underlayment: N/A

Attachment of Metal Roof Panels to Steel Purlins: The multi-rib metal roofing panels must be secured to the steel purlins/girts using #12-14 x 2-1/2" long, hex head, self-drilling fasteners with 5/8" diameter steel seal washer. The fasteners are 36" on center along steel purlins.

Panel Side Laps: Minimum 1/4-14 x 7/8" hex head screws with a sealing washer. The fasteners must be spaced 18" on center along the length of the side lap.

Trims, Closures, and Accessories: Components, such as the eave trim, rake start trim, rake end, rake tie-in, ridge trim, hi-side tie-in trim, high eave trim, hip trim, and valley trim must be installed 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.