

Product Evaluation

RC398 | 0522

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-398

Effective Date: May 1, 2022

Re-evaluation Date: May 2026

Product Name: Image II Aluminum Roofing Panels Installed Over an OSB Roof Deck

Manufacturer: Metal Sales Manufacturing Corporation
3838 North General Bruce Dr.
Temple, TX 76501
(254) 791-6550

General Description:

The Image II metal roof panels have 16" maximum coverage. The metal roof panels have ribs 1" high and located along the sides of the panel width. The aluminum roof panels are manufactured from minimum 0.032" thick aluminum with minimum yield strength of 21 ksi. The aluminum roof panels conform to ASTM B 209 and may be pre-painted.

Limitations:

Roof Framing: The metal roof panels must be installed over a solidly sheathed minimum 7/16" OSB roof deck. Roof framing (rafters or trusses) must not exceed 24" on center.

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

Design Wind Pressures: The design pressure uplift load resistance must be as specified in Table 1.

Roof Slope: The metal roofing panels may be installed on roofs with a roof slope as low as 1/2:12 if sealant is used on the side laps. If sealant is not used on the panel side laps, the minimum roof slope is 3:12. Application of the sealant must be in accordance with the manufacturer's installation instructions and the Image II Metal Roof Panel Details.

Installation Over an Existing Roof Covering: Installation over an existing roof covering is limited to a maximum of one existing layer of composition shingles, wood shingles or shakes, built-up roofing, or roll roofing applied over an existing, solid roof deck of minimum 7/16" OSB. Inspection of the existing roof deck must be made prior to the installation of the roof panels. The condition of the existing roof deck must be acceptable to receive the metal roofing panels before the metal roofing panel installation proceeds. Note: Underlayment is required to be installed. The fasteners must be long enough to penetrate completely through the roof deck.

Table 1

Attachment of Minimum 0.032" Aluminum Image II Roofing Panels to Minimum 7/16" OSB

Design Wind Pressure (psf)	Attachment of Roof Panel to 7/16" OSB
-30.0	No. 10-12 screws @ 24" on center
-56.1	No. 10-12 screws @ 18" on center
-82.3	No. 10-12 screws @ 12" on center
-108.4	No. 10-12 screws @ 6" on center

Installation:

General: The panel must be installed square (flush) with the eave and rake. The panels must not extend beyond the plane of the fascia board. All IRC and IBC requirements must be satisfied and the manufacturer's Image II Metal Roof Panel Details followed, unless otherwise specified by this product evaluation.

Underlayment: Use a minimum of one layer of No. 30 (Type II) asphalt felt shall 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 underlayment must be installed with 6-inch side laps and 3-inch end laps. The underlayment must be applied with corrosion-resistant roofing nails spaced a maximum of 36" on center along the side laps.

Attachment of Metal Roofing Panels to Wood Deck: The metal roof panels must be secured to the wood deck as follows:

Anchorage: (Exposed Fastened End) The panels must be fastened in the center of the fastening groove located along the male leg of the panel in accordance with Table 1 with No. 10-12 x 2" Pancake Head wood screws to minimum 7/16" OSB roof sheathing. The panel must be fastened along the rake at 6" on center with No. 10-14 x 1-1/2" wood screws. The panel must be fastened

along the high end of the panels at 4" on center with No. 10-14 x 1-1/2" wood screws. The fasteners must be corrosion resistant, with a painted or plated finish and must be properly driven, with No. 10-12 Pancake Head wood screws driven flush with the panel surface and No. 10-14 wood screws driven so that the sealing material is slightly visible at the edge of the washer.

Ridge Cap and Rake Trim: The ridge cap and the rake trim must be attached to the panels with 1/8" x 3/16" Weather Gard pop rivets as indicated in the Image II Metal Roof Panel Details. Double bead tape sealant and urethane tube sealant are required at the trim.

Trims, Closures and Accessories: Components, such as eave trim, rake trim, ridge trim, hip trim and valley trim, must be installed as required by the manufacturer and the Image II Metal Roof Panel Details.

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.