



Product Evaluation

RC272 | 0515

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-272

Effective Date: May 1, 2015

Re-evaluation Date: April 2019

Product Name: ABC Permaseam 24-Gauge Metal Roofing Panels Installed Over a Plywood Roof Deck

Manufacturer: McElroy Metal, Inc.
P.O. Box 1148
Shreveport, LA 71163
(318) 747-8000

Distributed By: McElroy Metal, Inc.
Metal Mart

General Description:

The ABC Permasaem roofing panel has a maximum net coverage of 18" and 1-3/4" tall standing seam snap lock rib. The panel is minimum 24-gauge minimum 50 ksi Alum-Zinc coated steel. The metal panels are available in acrylic coated galvalume and Kynar 500 finishes.

Limitations:

Roof Decking: The metal roofing panels must be installed over the following type of roof decking:

- Minimum 15/32" plywood roof decking

New Roof Decking Attachment: The roof decking must meet or exceed the uplift requirements of the IRC or IBC. Install as required for resistance to wind loads.

Design Wind Pressures: Table 1 specifies the design pressure uplift load resistance.

Roof Slope: Install the metal roofing panels on roofs with a roof slope as low as 3:12.

Table 1: Attachment of minimum 24-gauge ABC Permaseam metal roofing panels to plywood deck

Design Wind Pressure (psf)	Panel Seam	Panel Clip	Clip Spacing	Clip Fastener
-63.5	Snap Lock	3-1/2" long Fixed Clip, 18-gauge	24"	(2) #10
-68.5	Snap Lock	3-1/2" long Fixed Clip, 18-gauge	18"	(2) #10
-73.5	Snap Lock	3-1/2" long Fixed Clip, 18-gauge	12"	(2) #10
-78.5	Snap Lock	3-1/2" long Fixed Clip, 18-gauge	6"	(2) #10

Installation Over an Existing Roof Covering: Only install over 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 15/32" plywood. Note: Inspect the existing roof deck 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: Does not require underlayment.

Installation:

General: Install the metal roofing panels in accordance with the manufacturer's recommended installation instructions and this evaluation report.

Panels: Secure the metal roofing panels to the roof covering as Table 1 specifies and in accordance with this section.

Underlayment: For installations over a solid deck, use a minimum of one layer of No. 30 (Type II) asphalt felt. Use an underlayment that complies with one or more of the following: ASTM D 226, ASTM D 4869, or ASTM D 1970. Install the underlayment per manufacturer's installation instructions.

Attachment of Metal Roof Panels to the Roof Deck: Secure the metal roofing panels to the roof substrate in the following way:

- **Roofing Panels to Plywood Deck:** Minimum No. 10-12 x 1" long Pancake Head Type A. Use fasteners long enough to ensure a minimum penetration of 1/4" below the roof deck. (Note: If installing the metal roofing panels over an existing roof covering, then increase the fastener length so that the fasteners are long enough to ensure a minimum penetration of 1/4" below the existing plywood roof decking.). Table 1 specifies the required quantity of fasteners as well as the maximum allowable spacing of the fasteners.

Trims, Closures, and Accessories: Install components, such as the eave trim, rake trim, ridge trim, hip trim, and valley trim as required by the manufacturer.

Alternative Fasteners: Substitution of equivalent fasteners must meet the following requirements:

- No. 10-12 x 1" Pancake Head Type A, Ultimate withdrawal (pullout) \geq 339 lbs. in 15/32" plywood.

Note: Keep the manufacturer's installation instructions on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC, the IBC, and the Texas Revisions.