



Product Evaluation

RC150| 0715

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-150

Effective Date: July 1, 2015

Re-evaluation Date: July 2019

Product Name: 5V Metal Roofing Panels Installed Over a Plywood Deck

Manufacturer: Central States Manufacturing
302 Jane Place
Lowell, AR 72745
(800) 356-2733

General Description:

- The 5V metal roofing panel is a minimum 29-gauge steel panel that has a coverage width of 24". The metal roofing panels have 1/2" inverted ribs. The metal roofing panel has a yield strength of 80,000 psi.

Limitations:

- **Roof Framing:** Install the metal roofing panels over a minimum 19/32" plywood deck as specified in Table 1.
- **New Roof Framing Attachment:** The roof framing must meet or exceed the uplift requirements of the IRC and IBC. Install the decking in a manner to resist lateral loads.
- **Design Wind Pressures:** Table 1 specifies installations to minimum 19/32" plywood deck and design wind pressure limitations.
- **Installation Over an Existing Roof Covering:** If installing over an existing roof covering, limit 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 15/32" plywood. Note: Inspect the existing roof deck prior to the installation of the roof panels. The existing roof deck's condition must be acceptable to receive the metal roofing panels before installing the metal roofing panel. Installation does not require Underlayment.

- **Roof Slope:** The metal roof panels may be installed on roofs with a roof slope as low as 1/2:12 if sealant is used on the panel laps. If sealant is not used on the panel laps, then the minimum roof slope is 3:12.

Table 1. Attachment of Minimum 29-Gauge 5V Metal Roofing Panels to Minimum 19/32" Plywood Deck

Design Wind Pressure (psf)	Fastener Type	Fastener Spacing
-115.4	No. 9-15 x 1-1/2" Sharp Point screws with Hex head washer	6" on center

Installation:

- **General:** Install the steel roofing panels in accordance with the manufacturer's recommended installation instructions and this evaluation report.
- **Roof Deck:** Minimum 19/32" plywood deck.
- **Underlayment:** Use a minimum of one layer of No. 30 (Type II) asphalt felt. Use underlayment that complies with one or more of the following: ASTM D 226, ASTM D 4869, or ASTM D 1970. Install the underlayment with 4" side laps and 6" end laps. Apply the underlayment with corrosion resistant fasteners in accordance with the manufacturer's installation instructions and the IRC or the IBC.
- **Anchorage of Metal Panels to the Roof Deck:** Secure the metal roofing panels to the plywood deck in accordance with Table 1. Each panel must have one fastener located 3" from the center of each sidelap. Use fasteners long enough to ensure a minimum penetration of 1/4" below the roof deck.
- **Panel Side Laps:** As required by the manufacturer.
- **Panel Edges to the Roof Deck:** Secure the metal roofing panels to the plywood deck in accordance with Table 1. Each panel must have one fastener located 3" from the center of each sidelap. Use fasteners long enough to ensure a minimum penetration of 1/4" below the roof deck.
- **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.
- **Panel Ends and End Laps:** 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, the IBC, and the Texas Revisions.