

## Product Evaluation

RC326 | 0220

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-326

**Effective Date:** February 1, 2020

**Re-evaluation Date:** February 2024

**Product Name:** Panel-Loc Plus Minimum 29-Gauge Steel Roofing Panels Installed Over a Wood Deck

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

### General Description:

The Panel-Loc Plus metal roofing panel is a minimum 29-gauge steel panel that has a coverage width of 36". The metal roofing panels have a 3/4" rib height. The metal roofing panel has a yield strength of 80,000 psi.

### Limitations:

**Roof Deck:** A wood deck is required. The wood deck may be either 7/16" OSB, 15/32" plywood, or 5/8" plywood.

**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 installation to either 7/16" OSB, 15/32" plywood, or 5/8" plywood and the design wind pressure limitations.

**Installation Over an Existing Roof Covering:** Not permitted.

**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.** Panel-Loc Plus Minimum 29-Gauge Steel Roofing Panels Installed Over a Wood Deck

System	Design Wind Pressure	Roof Deck	Attachment of Panels to Wood Deck
1	-52.5 psf	7/16" OSB 15/32" Plywood	No. 9-15 x 1" Sharp Point screws with a hex head and a sealing washer
2	-52.5 psf	5/8" Plywood	1/4-14 x 1-1/2" Type AB screws; <b>or</b> 1/4-14 x 1-1/2" Type A screws

**Installation:**

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

**Underlayment:** Use a minimum of one layer of No. 15 (Type I) 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:**

**System 1:** Secure the metal roofing panels to the wood deck in accordance with Table 1. The screws are to be located a maximum of 12" on center along one side of each rib.

**System 2:** Secure the metal roofing panels to the wood deck in accordance with Table 1. The screws are to be located a maximum of 24" on center along the length of panel. The fastener spacing across the width of the panel must be 9" on center beginning 1-3/4" from the centerline on one side of each major rib.

**Panel Side Laps:** As required by the manufacturer.

**Panel Edges to the Roof Deck:** The screws are to be located a maximum of 24" on center along the length of panel.

**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:**

**System 1:** Secure the metal roofing panels to the wood deck in accordance with Table 1. The screws are to be located 12" on center and located on both sides of the lap.

**System 2:** Fastener spacing at panel ends to be 1-3/4" from the centerline on one side of each major rib.

**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.