

Product Evaluation

RC338 | 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-338

Effective Date: February 1, 2020

Re-evaluation Date: February 2024

Product Name: Smart Rib Plus Minimum 29-Gauge Steel Roof Panels Installed Over Wood Purlins

Manufacturer: Paramount Metals, Inc.
761 W. Henri De Tonti Blvd.
P.O. Box 249
Springdale, AR 72762
(479) 361-9477

General Description:

The Smart Rib steel roof panel is a minimum 29-gauge steel panel that has an effective width of 36". The panel has a yield strength of 80,000 psi.

Wood Purlins: The metal roof panels must be installed over open 2 x 4 wood purlins.

Design Wind Pressures: The design wind pressure limitations are specified in Table 1.

Installation Over an Existing Roof Covering: Installation over an existing roof covering is not permitted.

Roof Slope: The panels must not be installed on roofs with a roof slope less than 3:12.

Table 1. Attachment of 29 Gauge Steel Roof Panels to 2 x 4 Wood Purlins

System	Purlins	Design Pressure (psf)	Panel Seam	Panel Fasteners
1	Minimum 2 x 4, No. 2 or better, Southern Yellow Pine	-52.5	Smart Rib Plus	1/4-14 x 1-1/2" long Type AB; 14 x 1-1/2" long Type AB; 14 x 1-1/2" long Type A screws; or No. 10 x 1-1/2" long Woodgrip screws

Installation:

General: The steel roofing panels shall be installed in accordance with the manufacturer's recommended installation instructions and this evaluation report.

Roof Framing Members: The roof framing members must be spaced a maximum of 48" on center.

Wood Purlin Members: The 2 x 4 wood purlins must be spaced a maximum of 24" on center. The wood purlins must be attached to the wood framing members with No. 8 x 3" long bugle head screws, two (2) screws per attachment point.

Anchorage to Wood Purlins: The metal roof panels must be fastened to the wood purlins with 1/4-14 x 1-1/2" long Type AB; 14 x 1-1/2" long Type AB; 14 x 1-1/2" long Type A screws; or No. 10 x 1-1/2" long Woodgrip screws. The screws must be spaced a maximum of 24" on center along the length of the panel. The fastener spacing across the width of the panel must be 9" on center beginning 1-3/4" from the center line on one side of each major rib. Fastener spacing at panel ends must be 1-3/4" from the center line on one side of each major rib. The fastener spacing at panel ends to be in a 1-3/4, 5-1/2, 3-3/4, 5-1/2, 3-3/4, 5-1/2, 3-3/4 and 5-3/4" pattern.

Trims, Closures, and Accessories: Components, such as the eave trim, rake trim, ridge trim, hip trim, and valley trim must be installed as required by the manufacturer.

Panel Ends and End Laps: As required by the manufacturer.

Panel Edges: 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.