



# Product Evaluation

RC417 | 0215

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-417

**Effective Date:** October 1, 2014

**Revised:** February 1, 2015

**Re-evaluation Date:** October 2018

**Product Name:** Minimum 26-Gauge PBU Metal Roofing Panels Over Steel Purlins

**Manufacturer:** Triple S Steel Supply  
6000 Jensen Drive  
Houston, TX 77026  
(800) 231-1034

## Product Description:

The PBU metal roofing panels are minimum 26-gauge galvalume steel with an optional paint finish. The 26-gauge panel has an actual coverage of 36". The metal roof panels have a 3/4" rib height. The metal roofing panels conform to ASTM A792, with an 80,000 psi yield point.

## Limitations:

- **Roof Framing:** Install the metal roofing panels over open steel purlins.
- **New Roof Framing Attachment:** The roof framing 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 requirements.
- **Roof Slope:** Install the panels on roofs with slopes as low as 1/2:12 if using sealant on the panel side laps. If not using panels on the panel side laps, then the minimum slope is 3:12.
- **Installation Over an Existing Roof Covering:** Not permitted.

**Table 1:** Attachment of Minimum 26-gauge PBU Metal Roofing Panels to Steel Purlins

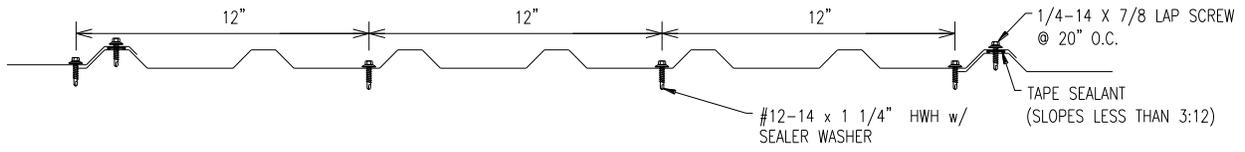
Design Wind Pressure (psf)	Purlins	Attachment of Panels to Steel Purlins
-150.8	Minimum 16-gauge; 2'-0" on center	Fasteners at 12"-12"-12"; 2'-0" on center
-134.3	Minimum 16-gauge; 2'-6" on center	Fasteners at 12"-12"-12"; 2'-6" on center
-117.9	Minimum 16-gauge; 3'-0" on center	Fasteners at 12"-12"-12"; 3'-0" on center
-101.4	Minimum 16-gauge; 3'-6" on center	Fasteners at 12"-12"-12"; 3'-6" on center
-84.9	Minimum 16-gauge; 4'-0" on center	Fasteners at 12"-12"-12"; 4'-0" on center
-68.5	Minimum 16-gauge; 4'-6" on center	Fasteners at 12"-12"-12"; 4'-6" on center
-52.0	Minimum 16-gauge; 5'-0" on center	Fasteners at 12"-12"-12"; 5'-0" on center

**Installation:**

- **General:** Install the metal roofing panels in accordance with the manufacturer's recommended installation instructions and this evaluation report.
- **Steel Purlins:** Follow the specifications in table 1 for the minimum thickness of the steel and maximum spacing of the purlins.
- **Underlayment:** NA.
- **Attachment of Metal Roofing Panels to the Steel Purlins:** Secure the PBU metal roofing panels to the steel purlins with No. 12-14 x 1-1/4" long HWH self-drilling with an integral washer. Locate a line of fasteners along each steel purlin. Follow the specifications in Table 1 for the fastener pattern and the spacing of the fasteners. Use fasteners that are long enough to ensure a minimum penetration of three pitches of thread below the steel purlin. Refer to Figure 1 for the fastening pattern on interior panels.
- **Panel Side Laps:** Stitch the panels together with minimum 1/4"-14 x 7/8" Lap Tek screws with a sealing washer. Space the fasteners at 20" on center along the length of the side lap.
- **Panel Ends and Edges to the Steel Purlins:** Minimum No. 12-14 x 1-1/4" long HWH self-drilling with an integral washer. Locate a line of fasteners in a 6"-6"-6"-6"-6" pattern along the steel purlin. Use fasteners that are long enough to ensure a minimum penetration of three pitches of thread below the steel purlin. Refer to Figure 1 for the fastening pattern for panel ends and endlaps.
- **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.

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

TYPICAL FASTENER PATTERN FOR INTERIOR SUPPORTS



FASTENER PATTERN FOR PANEL ENDS & ENDLAPS

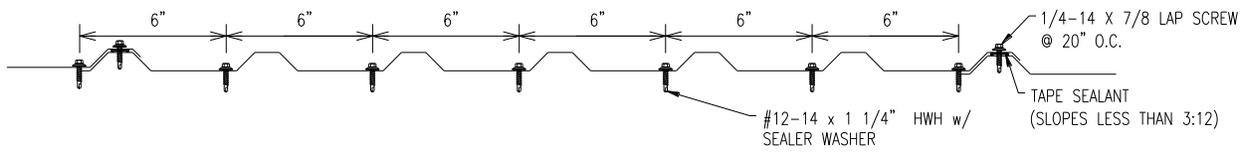


Figure 1: Fastener Patterns