

Product Evaluation

RC328 | 0522

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-328

Effective Date:

May 2022

Re-evaluation Date:

May 2026

Product Name: 26-Gauge PBR Steel Roofing Panels Installed Over Steel Purlins

Manufacturer: Victoria Metal Supply
5274 State Hwy 185
Victoria, TX 77905
(361) 570-5775

General Description:

The PBR metal roofing panels are steel roofing panels. The metal roofing panels have a maximum 36" of coverage. The metal roof panels have a 1-1/4" height. The metal roofing panels are manufactured from minimum 26-gauge steel that conform to ASTM A792, with a yield strength of 80,000 psi. The panels are available with an optional paint finish.

Limitations:

Roof Framing: The metal roofing panels must be installed over open steel purlins.

New Roof Framing Attachment: The roof framing must meet or exceed the uplift requirements of the IRC or IBC and must be installed as required for resistance to wind loads.

Design Wind Pressure: The design pressure uplift load resistance must be as specified in Table 1.

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

Installation Over an Existing Roof Covering: Not permitted.

Table 1

Attachment of 36" Wide, Minimum 26-gauge Steel PBR Roofing Panels to Steel Purlins

Design Wind Pressure	Purlins	Attachment of Panels to Steel Purlins
-130.0 psf	Minimum 16-gauge; 2'-0" on center	Fasteners @ 12"-12"-12" 2'-0" on center
-115.8 psf	Minimum 16-gauge; 2'-6" on center	Fasteners @ 12"-12"-12" 2'-6" on center
-101.7 psf	Minimum 16-gauge; 3'-0" on center	Fasteners @ 12"-12"-12" 3'-0" on center
-87.5 psf	Minimum 16-gauge; 3'-6" on center	Fasteners @ 12"-12"-12" 3'-6" on center
-73.3 psf	Minimum 16-gauge; 4'-0" on center	Fasteners @ 12"-12"-12" 4'-0" on center
-59.2 psf	Minimum 16-gauge; 4'-6" on center	Fasteners @ 12"-12"-12"- 4'-6" on center
-45.0 psf	Minimum 16-gauge; 5'-0" on center	Fasteners @ 12"-12"-12" 5'-0" on center

Installation:

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

Steel Purlins: The minimum thickness of the steel and the maximum spacing of the purlins must be as specified in Table1.

Attachment of Metal Roofing Panels to the Steel Purlins: The metal roofing panels must be secured to the steel purlins with No. 12-14 x 1-1/4" HWH DP3 self-drilling screws with a 15mm bonded sealing washer. A line of fasteners is required along each purlin. The fastener pattern and spacing is as specified in Table 1. The fasteners must be long enough to ensure a minimum penetration of 3 pitches of thread below the purlins. Refer to Figure 1 in this evaluation report.

Panel Side Laps: The panels are stitched together with minimum 1/4-14 x 7/8" HWH DP1 screws with a 15mm bonded sealing washer. The fasteners are spaced 20" on center along the length of the side laps.

Panel Ends and End Laps: The metal roofing panels must be secured to the steel purlins with No. 12-14 x 1-1/4" HWH DP3 self-drilling screws with a 15mm bonded sealing washer. A line of fasteners in a 5"-7"-5"-7"-5" pattern is required along each purlin. The fasteners must be long enough to ensure a minimum penetration of 3 pitches of thread below the purlins. Refer to Figure 1 in this evaluation report.

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