

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION

RC-265

Effective April 1, 2014

*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 shall be subject to reevaluation **April 2018**.*

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.

PBR-Panel Metal Roof Panel Installed over 16 gauge Steel Purlins manufactured by:

Metal Sales Manufacturing Corporation
3838 North General Bruce Drive
Temple, Texas 76501-6505
(254) 791-6650

is acceptable in designated catastrophe zones along the Texas Gulf Coast when installed in accordance with the distributor's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

This evaluation report is for PBR-Panel metal roofing panels installed over open steel purlins. The metal roofing panels are formed metal roofing panels. The metal roofing panels have 36 inches of coverage. The metal roofing panels have ribs 1 ¼ inch high and spaced 12 inches on center. The metal roofing panels are manufactured from a 26 gauge (0.019" thick) aluminum-zinc alloy coated steel with a Galvalume or painted finish with a minimum yield strength of 80 ksi. The metal roofing panels conform to ASTM A 653 or ASTM A 792.

LIMITATIONS

Roof Framing: The metal roofing panels shall be installed over open 16 gauge steel purlins.

New Roof Framing Attachment: The roof framing shall meet or exceed the uplift requirements of the International Residential Code or International Building Code along with the Texas Revisions and shall be installed as required for resistance to wind loads.

Design Wind Pressures: The design pressure uplift load resistance shall 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 side laps. If sealant is not used on the panel side laps, then the minimum roof slope is 3:12. Application of the sealant shall be in accordance with the manufacturer's installation instructions and the Metal Sales PBR-Panel Metal Roof Panel Details.

Installation Over an Existing Roof Covering: Not permitted.

TABLE 1

Attachment of 26 gauge PBR-Panel roofing panel to steel purlins:

Design Wind Pressure (psf)	Attachment of roofing panel to steel purlins
-41.9	Fastening Pattern #1 @ 5'-0" on center
-60.6	Fastening Pattern #1 @ 4'-6" on center
-79.4	Fastening Pattern #1 @ 4'-0" on center
-98.1	Fastening Pattern #1 @ 3'-6" on center
-117	Fastening Pattern #1 @ 3'-0" on center
-136	Fastening Pattern #1 @ 2'-6" on center
-154	Fastening Pattern #1 @ 2'-0" on center

INSTALLATION INSTRUCTIONS

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

Steel Purlins: The minimum thickness of the steel purlins shall be 16 gauge. The maximum spacing of the steel purlins shall be 5 feet on center.

Underlayment: Not required.

Attachment of Metal Roof Panels to the Steel Purlins: The metal roofing panels shall be secured to the steel purlins with No. 12-14x1 ¼" HWH self-drilling screws with a sealing washer manufactured by Atlas. A line of fasteners shall be located along each steel purlin. The spacing of the fasteners shall be as determined from Table 1. The fasteners shall be long enough to ensure a minimum of three threads below the steel purlin. The fasteners in the purlin nearest the ends of the metal roofing panels shall be per Fastening Pattern #2. The fasteners in the interior purlins shall be per Fastening Pattern #1. Refer to Figure 1 for interior and panel end fastening patterns.

Panel Side Laps: The panels shall overlap one corrugation. The panels are stitched together with a minimum 1/4"-14x7/8" lap screw manufactured by Atlas. The lap screws shall be spaced 12 inches on center along the length of the side lap.

Trims, Closures and Accessories: Components, such as eave trim, rake trim, ridge trim, hip trim and valley trim, shall be installed as required by the manufacturer and the Metal Sales PBR-Panel Metal Roof Panel Details.

Note: The manufacturer's installation instructions shall be available on the job site during the installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.

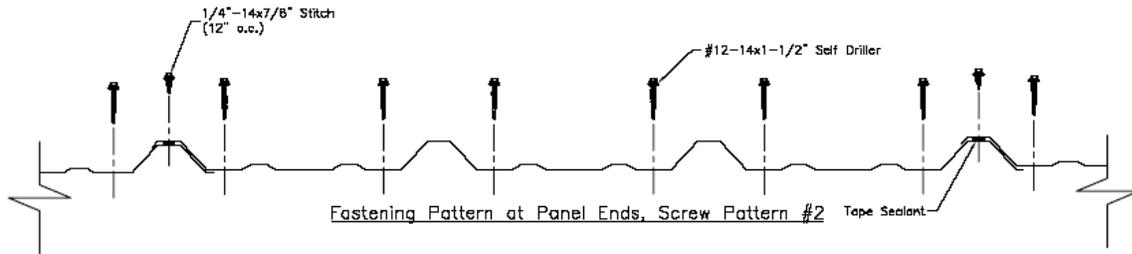
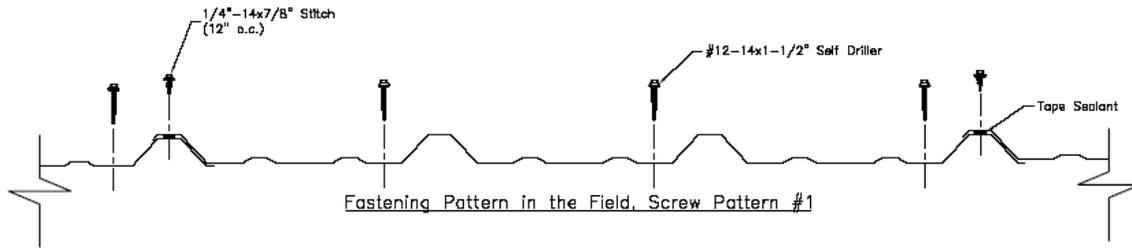


Figure 1. Minimum 26 Gauge PBR-Panel Fastener Patterns