

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION RC-179

Effective Date: September 1, 2013

*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 **September 2017**.*

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.

Mighti-Rib PBR Metal Roofing Panels manufactured by

Fabral, Inc.
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will be accepted for use in areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

The Mighti-Rib PBR metal roofing panels are either 26 gauge or 24 gauge galvalume steel with an optional paint finish. The metal roofing panels have an actual coverage of 36". Each metal roofing panel has ribs that are 1 ¼" deep. The 26 gauge metal roofing panels have an 80,000 psi yield point. The 24 gauge metal roofing panels have a 50,000 psi yield point. The panels have either a G90 hot-dipped galvanized coating, conforming to ASTM A653 or an AZ50 aluminum alloy coating, conforming to ASTM A792. The metal roofing panels can be finished with a factory applied Kynar 500/Hylar 5000 coating. The 26 gauge panels have an Enduracote finish. Refer to Figure 1 for an illustration of the Mighti-Rib PBR metal roofing panel.

LIMITATIONS

Roof Framing: The Mighti-Rib PBR metal roofing panels shall be installed over minimum 16 gauge steel purlins.

New Roof Framing Attachment: The roof framing and steel purlins shall meet or exceed the uplift requirements of the International Residential Code or International Building Code 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.

Table 1

Attachment of 26 gauge or 24 gauge Mighti-Rib PBR metal roofing panels to minimum 16 gauge steel purlins

Design Wind Pressure	Fastener Pattern	Purlin Spacing
-52.5 psf	6"-6"-6"-6"-6"	60 inches on center

Roof Slope: The metal roofing panels may be installed on roofs with a roof slope as low as $\frac{1}{2}$: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 INSTRUCTIONS

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

Panels: The Mighti-Rib PBR metal roofing panels shall be secured to the roof framing as specified in Table 1 and in accordance with this section.

Underlayment: N/A

Attachment of Metal Roof Panels to the Steel Purlins: The Mighti-Rib PBR metal roofing panels shall be secured to the steel purlins as follows:

Roofing Panels to the Steel Purlins: Minimum No. 12-14 x $1\frac{1}{2}$ " long self drilling, self tapping, hex head, plated screws with a $\frac{1}{2}$ " OD coated steel washer and a neoprene sealing washer. The fasteners shall be long enough to ensure a minimum penetration of 3 pitches of thread below the steel framing. A line of fasteners in a 6"-6"-6"-6"-6" pattern are to be installed. The spacing of the line of fasteners (purlin span) along the length of the panel shall be as specified in Table 1. Refer to Figure 2 for an illustration of the fastener pattern.

Panel Side Laps: Minimum No. 12 x $\frac{3}{4}$ " long self drilling, self tapping, hex head, plated screws with a $\frac{5}{8}$ " OD coated steel washer and a neoprene sealing washer.. The fasteners shall be spaced 12 inches on center along the length of the side lap.

Panel Ends and End Laps to the Steel Purlins: Panel ends and end laps shall occur over the steel purlins. Minimum No. 12-14 x $1\frac{1}{2}$ " long self drilling, self tapping, hex head, plated screws with a $\frac{1}{2}$ " OD coated steel washer and a neoprene sealing washer. The fasteners shall be long enough to ensure a minimum penetration of 3 pitches of thread below the steel framing. A line of fasteners in a 6"-6"-6"-6"-6" pattern are to be installed. The spacing of the line of fasteners (purlin span) along the length of the panel shall be as specified in Table 1. Refer to Figure 2 for an illustration of the fastener pattern.

Panel Edges to the Steel Purlins: Minimum No. 12-14 x $1\frac{1}{2}$ " long self drilling, self tapping, hex head, plated screws with a $\frac{1}{2}$ " OD coated steel washer and a neoprene sealing washer. The fasteners shall be long enough to ensure a minimum penetration of 3 pitches of thread below the steel framing. Along the edge of a panel, the fasteners shall be spaced as specified in Table 1.

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

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.

Mighti-Rib

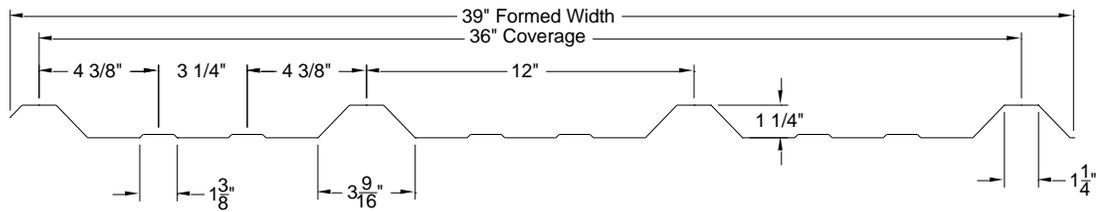


Figure 1. Mighti-Rib PBR Metal Panel

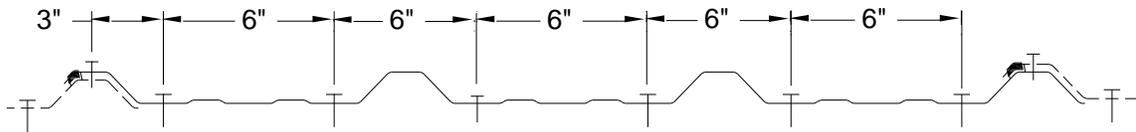


Figure 2. Mighti-Rib PBR Metal Panel – Fastener Pattern