

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION RC-358

Effective Date: January 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 in **January 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.*

**Minimum 24 Gauge PBR Metal Roofing Panels Over Steel Purlins** manufactured by

**Metal Building Components, Inc. (MBCI), L.P., a division of NCI, L.P.**  
**14031 West Hardy**  
**Houston, Texas 77060**  
**(281) 445-8555**

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 PBR metal roofing panel is minimum 24 gauge, 0.024" thick, coated steel. The 24 gauge panel has an actual coverage of 36". The metal roof panels have a 1 ¼" rib height. The panel conforms to ASTM A 653 Grade E, 50,000 psi yield point and galvanized.

## LIMITATIONS

**Roof Framing:** The metal roofing panels shall be installed over open 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 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 panels shall not be installed on roofs with a roof slope less than ½:12.

**Installation Over an Existing Roof Covering:** Not permitted.

**Table 1**  
Attachment of Minimum 24 gauge PBR Metal Roofing  
Panels to Steel Purlins

Design Wind Pressure (psf)	Purlins	Attachment of Panels to Steel Purlins
-158.5	Minimum 16 gauge; 1'-0" on center	Fasteners at 12"-12"-12"; 1'-0" on center
-60	Minimum 16 gauge; 5'-0" on center	Fasteners at 12"-12"-12"; 5'-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 and maximum spacing of the purlins shall be as specified in Table 1.

**Underlayment:** NA.

**Attachment of Metal Roofing Panels to the Steel Purlins:** The PBR metal roofing panels shall be secured to the steel purlins with No.  $\frac{1}{4}$ "-14 x 1  $\frac{1}{4}$ " long HWH Ultimate Long Life Head SD #3 by Atlas. A line of fasteners shall be located along each purlin. The fastener pattern and the spacing of the fasteners shall be as specified in Table 1. The fasteners shall be long enough to ensure a minimum penetration of 3 pitches of thread below the steel purlin.

**Panel Side Laps:** The panels are stitched together with minimum  $\frac{1}{4}$ "-14 x  $\frac{7}{8}$ " Lap Tek screws with a sealing washer. The fasteners shall be spaced at 12 inches on center along the length of the side lap.

**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.