

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION RC-339

Effective Date: July 1, 2012

*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 **July 2016**.*

*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.*

**Smart Rib Plus Minimum 29 gauge Steel Roof Panels Installed Over Wood Deck**, manufactured by

**Paramount Metals, Inc.**  
**761 W. Henri De Tonti Blvd.**  
**P.O. Box 249**  
**Springdale, Arkansas 72762-9610**  
**(479) 361-9477**

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 Smart Rib steel roof panel is a minimum 29 gauge steel panel that has an effective width of 36". The panel has a yield strength of 80,000 psi.

## LIMITATIONS

**Roof Decking:** The metal roof panels shall be installed over a minimum of  $\frac{7}{16}$ " thick OSB or  $\frac{5}{8}$ " thick plywood wood structural panel decking as specified in Table 1.

**New Roof Deck Attachment:** The roof decking shall meet or exceed the uplift requirements of the International Residential Code and International Building Code, and the decking shall be installed in a manner to resist lateral loads.

**Design Wind Pressures:** For installations to minimum  $\frac{7}{16}$ " thick OSB or  $\frac{5}{8}$ " thick plywood wood structural panel roof decks, design wind pressure limitations are specified in Table 1.

**Installation Over an Existing Roof Covering:** Installation over an existing roof covering is not permitted.

**Roof Slope:** The panels shall not be installed on roofs with a roof slope less than 3:12.

**Table 1**  
**Attachment of 36" Wide 29 Gauge Steel Roof Panel to**  
**Minimum  $\frac{7}{16}$ " OSB Deck or  $\frac{5}{8}$ " Plywood**

System	Roof Deck	Design Pressure (psf)	Panel Seam	Panel Fasteners
1	$\frac{7}{16}$ " OSB	-45.0	Smart Rib Plus	No. 9-15 x 1 inch long sharp point screws with a hex-washer head and sealing washer.
2	$\frac{5}{8}$ " Plywood	-45.0	Smart Rib Plus	$\frac{1}{4}$ -14 x 1 $\frac{1}{2}$ inch long Type AB or $\frac{1}{4}$ -14 x 1 $\frac{1}{2}$ inch long Type A screws

### INSTALLATION INSTRUCTIONS

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

**Roof Framing Members:** The roof framing members shall be spaced a maximum of 24 inches on center.

**Underlayment:** Minimum of one layer of No. 15 (Type I) asphalt felt shall be used. The underlayment used shall comply with one or more of the following: ASTM D 226, ASTM D 4869, or ASTM D 1970. The underlayment shall be installed in accordance with the minimum requirements in the IRC and IBC.

**Anchorage to Roof Decking (System 1):** The metal roof panels shall be fastened to the roof deck with No. 9-15 x 1 inch long sharp point screws with a hex-washer head and sealing washer. The screws shall be spaced a maximum of 12" o.c. along one side of each rib except at panel overlap locations where fasteners are to be spaced 12" o.c. and located on both sides of the lap.

**Anchorage to Roof Decking (System 2):** The metal roof panels shall be fastened to the roof deck with  $\frac{1}{4}$ -14 x 1  $\frac{1}{2}$  inch long Type AB or  $\frac{1}{4}$ -14 x 1  $\frac{1}{2}$  inch long Type A screws. The screws shall be spaced a maximum of 24" o.c. along the length of the panel. The fastener spacing across the width of the panel shall be 9" o.c. beginning 1  $\frac{3}{4}$  inches from the center line on one side of each major rib. Fastener spacing at panel ends shall be 1  $\frac{3}{4}$  inches from the center line on one side of each major rib. The fastener spacing at panel ends to be in a 1  $\frac{3}{4}$ , 5  $\frac{1}{2}$ , 3  $\frac{3}{4}$ , 5  $\frac{1}{2}$ , 3  $\frac{3}{4}$ , 5  $\frac{1}{2}$ , 3  $\frac{3}{4}$  and 5  $\frac{3}{4}$  inches.

**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.

**Panel Ends and End Laps:** As required by the manufacturer.

**Panel Edges:** As required by the manufacturer.

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