

# TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104  
Phone No. (512) 322-2212 Fax No. (512) 463-6693

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## PRODUCT EVALUATION RC-163

Effective August 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 **June 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.*

**Stile Metal Roof Panels** manufactured by

**Metal Sales Manufacturing Corporation**  
**7800 State Road 60**  
**Sellersburg, Indiana 47172**  
**(812) 246-1866**

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

## PRODUCT DESCRIPTION

Stile Roof Panels are minimum 26 gauge (0.021" thick) galvanized steel with a painted finish. The panel width is 42.3" and covers 39.4". Corrugations are 1  $\frac{3}{16}$ " high and are spaced 5" on center.

## LIMITATIONS

**Design Wind Pressures:** For installation to minimum nominal  $\frac{15}{32}$ " plywood roof decks, design wind pressure limitations are specified in Table 1. For installation on nominal  $\frac{5}{8}$ " plywood roof decks, design wind pressure limitations are specified in Table 2.

**Roof Slope:** : Stile roof panel shall not be installed on roofs with a roof slope greater than 3:12, unless minimum No. 30 (Type II) asphalt felt underlayment is installed under the panels. Stile roof panel shall not be installed on roofs with a roof slope less than 3:12 and greater than or equal to  $\frac{1}{2}$ :12, unless Metal Sales Hi-Temp (MS-HT) underlayment is installed under the panels. Stile roof panel shall not be installed on roofs with a roof slope less than  $\frac{1}{2}$ :12. Stile roof panel shall be installed in accordance with the Stile Metal Roof Panel Details and the IRC, Section R905.10.2, or the IBC, Section 1507.4.2.

## INSTALLATION INSTRUCTIONS

### General Installation Requirements:

Stile panels must be installed from right to left. The installation of the panels shall be limited to extending one to two inches beyond the plane of the fascia board. Tube sealant is required at the panel sidelaps in accordance with the Stile Metal Roof Panel Details.

All IRC and IBC requirements must be satisfied and the Stile Metal Roof Panel Details followed, unless otherwise specified by this product evaluation.

### PANEL INSTALLATION REQUIREMENTS

**Panels:** Panels shall be secured to the roof deck in accordance with Table 1 or Table 2. Refer to the Stile Metal Roof Panel Details for an illustration of the screw pattern.

**TABLE 1**

Attachment of 26 gauge Stile Roof Panel to plywood roof decking:

Wind Pressure (psf)	Attachment of Roof Panel to $\frac{15}{32}$ " thick plywood deck
-89	Screw Pattern #1 @ 2'-0" o.c.
-108	Screw Pattern #1 @ 1'-0" o.c.

**TABLE 2**

Attachment of 26 gauge Stile Roof Panel to plywood roof decking:

Wind Pressure (psf)	Attachment of Roof Panel to $\frac{5}{8}$ " thick plywood deck
-50	Screw Pattern #1 @ 3'-0" o.c.
-76	Screw Pattern #1 @ 2'-0" o.c.
-103	Screw Pattern #1 @ 1'-0" o.c.

**Underlayment:** A minimum of one layer of No. 30 (Type II) asphalt felt underlayment shall be used. The underlayment shall comply with one or more of the following: ASTM D 226 or ASTM D 4869 if used over the field or perimeter of the roof, or ASTM D 1970 if Metal Sales Hi-Temp (MS-HT) is used. The felt shall be installed with 10" side laps and 3" end laps. The nailable felt shall be fastened to the roof deck with corrosion resistant 12 gauge, 1  $\frac{1}{2}$ " long ring shank roofing nails, spaced 6" o.c. at all laps and 12" o.c. staggered in the field.

**Anchorage:** The panels shall be fastened in accordance with Table 1 or Table 2, depending on the thickness of the roof deck, with  $\frac{1}{4}$ "-14 x 1  $\frac{1}{2}$ ", Type AB, milled point  $\frac{3}{8}$ " AF zinc alloy capped wood screws with seal washer ( $\frac{1}{4}$ "-14 x 1  $\frac{1}{2}$ ", Type ABMP Wood Grip self-drilling, self-tapping hex head screws) to the plywood roof decking as specified in Table 1 and Table 2. Refer to Figure 1 for Screw Pattern #1. The panels shall be fastened along the panel ends at every valley with  $\frac{1}{4}$ "-14 x 1  $\frac{1}{2}$ ", Type ABMP Wood Grip self-drilling, self-tapping hex head screws in accordance with Screw Pattern #2. Refer to Figure 1 for Screw Pattern #2. The panels shall be fastened along the rakes with  $\frac{1}{4}$ "-14 x 1  $\frac{1}{2}$ ", Type ABMP Wood Grip self-drilling, self-tapping hex head screws spaced 6" o.c. The panel side overlaps shall be fastened with  $\frac{1}{8}$ " x  $\frac{3}{16}$ " Weather Gard pop rivets spaced at 12" o.c. Panel wood screws and pop rivets shall be corrosion resistant. Screws shall be properly driven, so that the sealing material is slightly visible at the edge of the washer.

**Ridge Cap and Rake Trim:** The ridge cap and the rake trim shall be attached to the panels with  $\frac{1}{4}$ "-14 x 1  $\frac{1}{2}$ ", Type ABMP Wood Grip self-drilling, self-tapping hex head screws and  $\frac{1}{8}$ " x  $\frac{3}{16}$ " pop rivets as

indicated in the Stile Metal Roof Panel Details. Elastic butyl tape sealant is required at the panel end laps and trim.

**Note:** Stile Metal Roof Panel Details shall be 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.

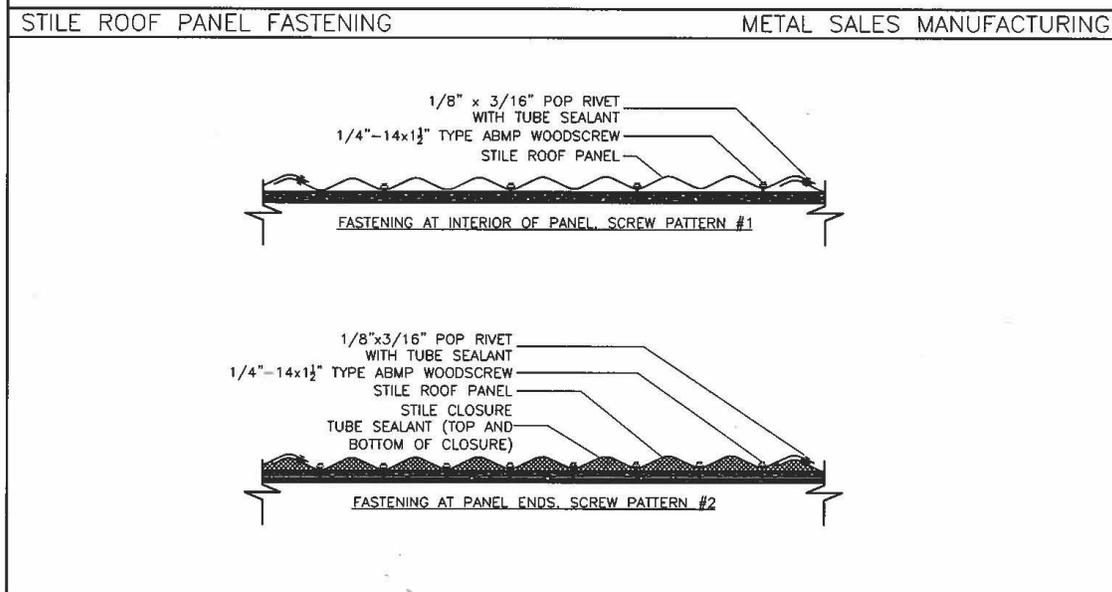
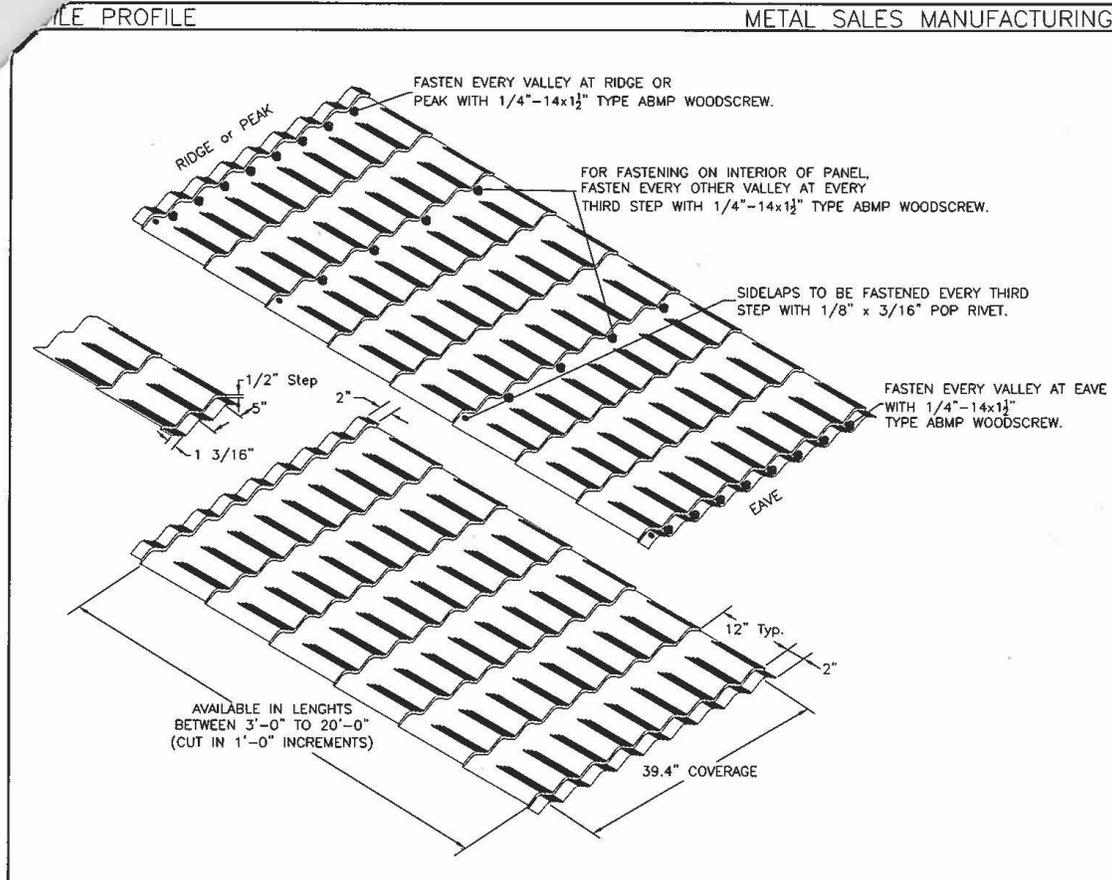


Figure 1. Screw Pattern #1 and Screw Pattern #2