

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

PRODUCT EVALUATION

RC-386

Effective October 1, 2013

Revised November 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 **March 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.

SMI 1.5 MS 24 gauge Mechanical Standing Seam Metal Roof Panel Installed Over a Plywood Deck,
manufactured by

Sheffield Metals International
5467 Evergreen Parkway
Sheffield Village, OH 44054
(800) 283-5262

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 SMI 1.5 MS is a mechanically seamed standing seam metal roof system. The panel is 24 gauge galvalume. The vertical leg of the panel measures 1.5 inches in height and has a maximum panel width of 16". The panel can be formed in continuous lengths and interlocks to adjoining panels by field seaming the panels to a 180 degree seam.

LIMITATIONS

Roof Decking: The metal roof panels shall be installed over a minimum of $\frac{15}{32}$ " thick plywood decking.

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 $\frac{15}{32}$ " thick plywood 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 metal roof 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 2:12.

Table 1
Attachment of 16" wide minimum 24 gauge Metal Roof Panels
to minimum 1⁵/₃₂" Plywood Deck

System	Design Pressure (psf)	Panel Seam	Panel Clip	Clip Spacing	Clip Fastener
1	-106.75	SMI 1.5 MS	2-piece Galvanized Steel Clips Comprised of Butterfly Base 1.5", 22gauge G-90 galvanized steel, (1" x 1.25" x 4.5" long); Clip Assembly Butterfly 1.5", 24 gauge G-90 galvanized steel, (5" x 0.910" with two return flaps 0.40" wide)	24"	(2) #10 x 1" Weather Gard pancake head screws, Type A

INSTALLATION INSTRUCTIONS

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

Deck: The roof deck shall be solidly sheathed with minimum 1⁵/₃₂" plywood.

Underlayment: A minimum of one layer of No. 30 (Type II) 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 felt shall be installed with 4 inch laps. The felt shall be fastened to the roof deck with corrosion resistant fasteners in accordance with the manufacturer's installation instructions. Fasteners shall be applied along the overlaps not farther apart than 36 inches on center.

Anchorage to Roof Decking: The metal roof panels shall be fastened in accordance with Table 1. The metal roofing panels shall be secured to the roof deck with the two part clip specified in Table 1. The clips are spaced 24 inches on center. The clips are secured with two (2) #10 x 1" Weather Gard pancake head screws, Type A. The screws must penetrate the sheathing a minimum of 3/16". The legs are mechanically seamed 180 degrees after the clips are installed.

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 shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.