



Product Evaluation

RC475| 0116

Engineering Services Program

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 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.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: RC-475

Effective Date: January 1, 2016

Re-evaluation Date: January 2020

Product Name: HS 150 24 Gauge Metal Roofing Panels

Manufacturer: H&S Building Material
12400 Taylor Road
Houston, Texas 77041
Telephone: (832) 300-3700

General Description: The HS 150 metal roofing panel is minimum 24 gauge galvalume steel panels with an optional paint finish. The metal roofing panels have a maximum coverage of 16-5/8". The panel has a 1-1/2" tall snap lock standing seam rib. The 24 gauge. Steel material is ASTM A 792 AZ55, Grade 50, with a 50 ksi yield point with optional painted finishes. Panels must be formed within the panel rollformer specifications and tolerances. Panel Rollformer: New Tech Machinery Corp., SS450SL Panel Profile.ption

Limitations:

Roof Decking: The HS 150 metal roofing panels must be installed over minimum 15/32" plywood roof decking.

New Roof Deck Attachment: The roof decking must meet or exceed the uplift requirements of the International Residential Code or International Building Code and must be installed as required for resistance to wind loads.

Design Wind Pressures: The design pressure uplift load resistance must be as specified in Table 1.

Roof Slope: Do not install the metal roofing panels on roofs with a roof slope less than 3:12

Table 1:

Attachment of minimum 24 gauge HS 150 metal roofing panels to minimum 15/32" plywood decking.

Design Pressure (psf)	Panel Gauge	Panel Seam	Panel Clip	Clip Spacing	Clip Fastener
-52.5	24 Ga. Steel	Snap Lock	24 Ga. Fixed	18" O.C.	(2) #10-12
-86.0	24 Ga. Steel	Snap Lock	24 Ga. Fixed	6" O.C.	(2) #10-12

Installation Over an Existing Roof Covering: Installation over an existing roof covering is limited to a maximum of one existing layer of composition shingles, wood shingles or shakes, built-up roofing, or roll roofing applied over an existing, solid roof deck of minimum 15/32" plywood. Note: Inspection of the existing roof deck must be made prior to the installation of the roof panels. The condition of the existing roof deck must be acceptable to receive the metal roofing panels before the metal roofing panel installation proceeds. NOTE: Underlayment is not required to be installed.

Installation Instructions:

General: The HS 150 metal roofing panels must be installed in accordance with the manufacturer's recommended installation instructions and this evaluation report.

Panels: The metal roofing panels must be secured to the roof covering as specified in Table 1 and in accordance with this section.

Underlayment: A minimum of one layer of No. 30 (Type II) asphalt felt or equivalent must be used. The underlayment used must comply with one or more of the following: ASTM D 226, ASTM D 4869, or ASTM D 1970. The underlayment must be installed with 6" side laps and 3" end laps. The underlayment must be applied with corrosion-resistant fasteners in accordance with the manufacturer's installation instruction. Fasteners must be applied along the overlaps not farther apart than 36" on center.

Attachment of Metal Roof Panels to the Roof Deck: The HS 150 metal roofing panels must be secured to the roof substrate in the following way:

- **Roofing Panels to Plywood Deck:** The panels must be installed using a fixed clip with (2) No. 10-12 x 1" long Pancake Type A. The fasteners must be long enough to ensure a minimum penetration of 1/4" below the roof deck. (Note: If the metal roofing panels are installed over an existing roof covering, then the fastener length must be increased so that the fasteners are long enough to ensure a minimum penetration of 1/4" below the existing plywood roof decking.) The required size and quantity of fasteners as well as the maximum allowable spacing of the fasteners is specified in Table 1.
- **Panel Clip:** One piece fixed clip. 24 gauge x 1-3/4" long Galvanized steel.
- **Panel Seam:** The panel is a snap lock seam.
- **Panel Ends and Edges:** As required by the manufacturer.
- **Trims, Closures, and Accessories:** Components, such as the eave trim, rake trim, ridge trim, hip trim, and valley trim must be installed as required by the manufacturer.
- **Alternative Fasteners:** Alternative fasteners of equal or greater strength may be substituted.

Note: Keep the manufacturer's installation instructions available on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC, IBC, and the Texas Revisions.