

Product Evaluation

RC738 | 1123

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-738

Effective Date: November 1, 2023

Re-evaluation Date: November 2027

Product Name: Max150SL Steel Panels Installed over Plywood Deck

Manufacturer: MetalMax Roofing and Siding
900 Cpt Joe Fulghum Drive
Murfreesboro, TN 37129
(615) 295-2561

General Description:

Max150SL is a snap lock standing seam metal roof system. The 26-gauge steel material is ASTM A792 AZ-50, Grade 50, with a 50 ksi yield point with optional paint finishes. The maximum height of the female rib is 1-1/2". The panel has a maximum width of 15-5/8". The panel can be formed in continuous lengths and interlocks to adjoining panels by snapping male and female legs together and fastening the panel to the deck using a concealed fastener system (clips with screws). The panel rollformer is from New Tech Machinery Corp. with an SS450SL panel profile.

This evaluation report is for residential steel roofing panels that are secured to nominal 15/32" plywood roof decks. Thicker plywood may be used; however, the design pressure rating for the metal panels must be as specified in this evaluation report.

Limitations:

Roof Decking: Install metal roof panels over a minimum 15/32" thick plywood wood structural panel decking.

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

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

Table 1: Attachment of Minimum 26-gauge Max150SL Panels to Minimum 15/32" Plywood Deck

Design Wind Pressure (psf)	Attachment of Panel Clip to Plywood
-35.0	24" on center
-39.1	21" on center
-43.1	18" on center
-47.2	15" on center
-51.2	12" on center
-55.3	9" on center
-59.3	6" on center

Roof Slope: The metal roofing panels may be installed on roofs with a roof slope as low as 3:12.

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 existing roof deck must be made prior to the installation of the roofing panels. The condition of the existing roof deck must be acceptable to receive the aluminum roofing panels before roof panel installation can begin.

Installation:

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

Roof Framing Members: Space the roof-framing members at maximum of 24" on center.

Underlayment: Use a minimum of one layer of No. 30 (Type II) asphalt felt. The underlayment used must comply with one or more of the following: ASTM D 226, ASTM D 4869, or ASTM D 1970. Install the underlayment with 6" side laps and 3" end laps. The underlayment must be applied with corrosion resistant fasteners in accordance with the manufacturer's installation instructions, the IRC or the IBC.

Attachment of Metal Roof Panels to the Roof Deck: Secure the roofing panels to the wood roof deck with clips. The clips are secured to the roof deck with two #10-9 x 1" long pancake head Type 17 wood screws. The fasteners must be long enough to ensure a minimum penetration of 1/4" below the roof deck. (Note: if the roof 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 roof deck). Table 1 specifies the spacing of the clips.

Panel Clip: A one-piece fixed clip. 3" long, 1.3" tall, 24-gauge galvanized clip.

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.

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