TDI | Texas Department of Insurance

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Product Evaluation

RC658 | 0521

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-658

Effective Date: May 1, 2021
Re-evaluation Date: May 2025

Product Name: RM 100 SL 24-Gauge Steel Standing Seam Roof Panel Installed Over a Plywood Deck

Manufacturer: Rigo's Roofing Installers, Inc.
4990 Crockett Martin Rd.
Conroe, TX 77306
(936) 520-3787

General Description:

The RM 100 SL standing seam panels are minimum 24-gauge galvalume steel panels. The steel roof panels have a maximum coverage of 16". The panel has a 1" tall snap lock standing seam rib with a nail fastener flange with 1" x 1/4" slots at 5-3/16" on center. The 24-gauge steel material is ASTM A792 AZ 50 or AZ-55, Grade 50 with a minimum 50 ksi yield point with optional painted finishes. The panels must be formed within the panel roll former from New Tech Machinery Corp with a 1" fastener flange panel profile.

This product evaluation report is for steel roof panels that are secured to a nominal 15/32" plywood deck. A thicker plywood deck may be used; however, the design pressure rating for the steel panels must be as specified in the evaluation report.

Limitations:
Roof Deck: The steel roof panels must be installed over a minimum 15/32" plywood deck. The plywood sheathing must be attached to wood roof framing. The wood roof framing spacing must not exceed 24" on center.

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

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

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

Table 1. Attachment of RM SL 24-Gauge Steel Roofing Panels to Minimum 15/32" Plywood Roof Deck

Design Wind Pressure	Panel Fastener Spacing
-56.0 psf	15-9/16" o.c.
-97.3 psf	10-3/8" o.c.
-138.5 psf	5-3/16" o.c.

Installation over 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 roof panels. The condition of the existing roof deck must be acceptable to receive the steel roofing panels before roof panel installation can begin.

Installation Instructions:
General: The steel roof panels must be installed in accordance with the manufacturer's installation instructions and this product evaluation report.

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 standards: ASTM D226; ASTM D4869; or ASTM D1970. 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 instructions, the IRC, or the IBC.

Attachment of Metal Roof Panels to the Plywood Deck: The steel roof panels must be secured to the roof deck with minimum No. 10-12 x 1" long Pancake Type A screws. The fasteners must be long enough to ensure a minimum penetration of 1/4" below the roof deck. (Note: If the steel 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

plywood roof deck.). The fasteners must be located in the nail slot in the flange. The maximum allowable spacing of the fasteners is specified in Table 1.

Panel Ends: As required by the manufacturer.

Panel Edges: As required by the manufacturer.

Trims, Closures, and Accessories: Installation of components such as eave, rake trim, ridge trim, hip trim, and valley trim must be 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.