

Product Evaluation

RC509 | 1221

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-509

Effective Date: December 1, 2021

Re-evaluation Date: October 2025

Product Name: NTMR-ML-200 24-Gauge Steel Standing Seam Roof Panels Installed over Steel Purlins

Manufacturer: North Texas Metal Roofing & Construction, Inc.
P.O. Box 1699
Mansfield, TX 76063
(817) 845-8900

General Description:

The NTMR-ML-200 metal roofing panels are steel standing seam roofing panels. The steel roofing panels have a maximum 18-1/2" of coverage. The steel roofing panels have a 2" rib height and a mechanically seamed side lap. The steel roofing panels are manufactured from minimum 24-gauge Galvalume coated steel that conform to ASTM A792, with a minimum yield strength of 50,000 psi. Panel Rollformer New Tech Machinery, Corp.

Limitations:

Roof Framing: The steel roofing panels must be installed over open steel purlins.

New Roof Framing Attachment: The roof framing must meet or exceed the uplift requirements of the IRC or IBC 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: The steel roofing panels may be installed on roofs with a roof slope as low as 1/2:12.

Installation Over an Existing Roof Covering: Not permitted.

Table 1

Attachment of 24-gauge Steel NTMR-ML-200 Standing Seam Roofing Panels to Steel Purlins

Design Wind Pressure	Purlins	Attachment of Panel to Purlins
-32.5 psf	16-Gauge Steel; 5'-0" on center	Clips @ 60" o.c.
-43.4 psf	16-Gauge Steel; 4'-6" on center	Clips @ 54" o.c.
-54.4 psf	16-Gauge Steel; 4'-0" on center	Clips @ 48" o.c.
-65.3 psf	16-Gauge Steel; 3'-6" on center	Clips @ 42" o.c.
-76.3 psf	16-Gauge Steel; 3'-0" on center	Clips @ 36" o.c.
-87.2 psf	16-Gauge Steel; 2'-6" on center	Clips @ 30" o.c.
-98.1 psf	16-Gauge Steel; 2'-0" on center	Clips @ 24" o.c.
-109.1 psf	16-Gauge Steel; 1'-6" on center	Clips @ 18" o.c.
-120.0 psf	16-Gauge Steel; 1'-0" on center	Clips @ 12" o.c.

Installation:

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

Steel Purlins: The minimum thickness of the steel and the maximum spacing of the purlins must be as specified in Table 1.

Attachment of Steel Roofing Panels to the Steel Purlins: The steel roofing panels must be secured to the steel purlins with NC-33001-3 or NC-33002-3 sliding clips (3" tall, 22-gauge top, 16-gauge bottom, 50 ksi, G90 galvanized) by Logan Stamping, Inc/BPD. Each clip is secured to the steel purlins with two (2) minimum #1/4-14 x 1-1/4" HWH T3 self-driller screws manufactured by Dynamic Fasteners. The spacing of the clips are as specified in Table 1. The fasteners must be long enough to ensure a minimum penetration of 3 pitches of thread below the steel deck.

Panel Seam: The panel ribs to be seamed with a mechanical seamer to a double lock, 180-degree seam.

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.