

Product Evaluation

RC698 | 0722

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-698

Effective Date: July 1, 2022

Re-evaluation Date: July 2026

Product Name: CW ML-200 2" Mechanical Lock 24-Gauge Steel Standing Seam Roofing Panels
Installed Over a Wood Structural Panel Deck

Manufacturer: CW Metal Products
14333 Sommermeyer Street
Houston, TX 77041
(832) 300-3700

General Description:

The CW ML-200 mechanical lock standing seam roofing panels are 24-gauge galvalume steel roofing panel with an optional paint finish. The steel roofing panels have a maximum coverage of 15-3/4". The steel panels have a 2" tall mechanical lock standing seam rib. The panel is minimum 24-gauge steel conforming to ASTM A 792 grade 50 with a 50 ksi yield point. The panels must be formed within specifications and tolerances of the panel rollformer. The panel rollformer is Schlebach Quadro.

Limitations:

Roof Deck: This evaluation report is for residential steel roofing panels that are secured to either a minimum nominal 15/32" plywood roof deck or a minimum nominal 7/16" OSB roof deck. Thick plywood or OSB may be used; however, the design pressure rating for the steel roof panels must be as specified in this evaluation report.

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

Roof Slope: Install the steel roofing panels on roofs with a roof slope as low as 1/2:12.

Design Wind Pressures: The design pressure uplift load resistance must be as specified in either Table 1 or Table 2.

Table 1: Attachment of Minimum 24-gauge CW ML-200 Roofing Panels to Plywood Deck

Design Wind Pressure (psf)	Panel Seam	Panel Clip	Clip Spacing	Clip Fastener
-71.0	Double Lock	Fixed Clip	36"	(2) #10-12
-84.5	Double Lock	Fixed Clip	30"	(2) #10-12
-98.0	Double Lock	Fixed Clip	24"	(2) #10-12
-111.5	Double Lock	Fixed Clip	18"	(2) #10-12
-125.0	Double Lock	Fixed Clip	12"	(2) #10-12
-138.5	Double Lock	Fixed Clip	6"	(2) #10-12

Table 2: Attachment of Minimum 24-gauge CW ML-200 Roofing Panels to OSB Deck

Design Wind Pressure (psf)	Panel Seam	Panel Clip	Clip Spacing	Clip Fastener
-93.5	Double Lock	Fixed Clip	18"	(2) #10-12
-104.8	Double Lock	Fixed Clip	12"	(2) #10-12
-116.0	Double Lock	Fixed Clip	6"	(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 either minimum 15/32" plywood or 7/16" OSB. Note: Inspect the existing roof deck prior to the installation of the roofing panels. The condition of the existing roof deck must be acceptable to receive the steel roofing panels before the steel roofing panel installation proceeds. NOTE: Underlayment is not required to be installed.

Installation:

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

Underlayment: Use a minimum of one layer of No. 30 (Type II) asphalt felt or equivalent. 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, and the IBC.

Attachment of Steel Roofing Panels to the Plywood or OSB Roof Deck: Secure the panels to the roof deck using fixed clips. Each clip is secured to the roof deck with two (2) minimum No. 10-12 x 1" long Pancake T-17 fasteners. Use fasteners long enough to ensure a minimum penetration of 1/4" below the roof deck. (Note: If the steel 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.) Table 1 and Table 2 specify the required quantity of fasteners as well as the maximum allowable spacing of the panel clips.

Panel Clip: The clip is a fixed clip. The clip is 24-gauge steel; 2" tall; 3" long.

Panel Seam: The panels are seamed to a 180-degree seam (double lock) with a mechanical seamer.

Panel Ends: As required by the manufacturer.

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Trims, Closures, and Accessories: Install components, such as the eave trim, rake trim, ridge trim, hip trim, and valley trim 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.