

Product Evaluation

RC446 | 0220

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-446

Effective Date: February 1, 2020

Re-evaluation Date: February 2024

Product Name: 24-Gauge Steel Central Span Quad Lock Standing Seam Roofing Panel Installed Over Steel Purlins

Manufacturer: Central States Manufacturing
302 Jane Place
Lowell, AR 72745
(800) 356-2733

General Description:

The Central Span Quad Lock standing seam steel roofing panel is a minimum 24-gauge steel panel with a 180-degree seam that has a maximum coverage width of 16". The metal roofing panels have a 2" rib height. The metal roofing panel has a yield strength of 50,000 psi.

Limitations:

Roof Framing: Install the metal roofing panels over a minimum 16-gauge steel purlins as specified in Table 1.

New Roof Framing Attachment: The roof framing must meet or exceed the uplift requirements of the IRC and IBC. Install the decking in a manner to resist lateral loads.

Design Wind Pressures: Table 1 specifies installations to minimum 16-gauge steel purlins, design wind pressure limitations.

Installation Over an Existing Roof Covering: Installation over an existing roof covering is not permitted.

Roof Slope: The metal roofing panels may be installed on roofs with a roof slope as low as 1/4:12.

Table 1. 24-Gauge Steel Central Span Quad Lock Standing Seam Metal Roofing Panel Installed Over Steel Purlins

Design Wind Pressure	Steel Purlin Spacing	Clip Spacing
-112.5 psf	2'-0" o.c.	2'-0" o.c.
-30.0 psf	5'-0" o.c.	5'-0" o.c.

Installation:

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

Roof Framing Members: The steel purlins must be minimum 16 gauge. The spacing of the steel purlins must be as specified in Table 1.

Underlayment: N/A.

Anchorage of Metal Panels to Steel Purlins: Secure the metal roofing panels to the steel purlins with the VSRLCLIP. The floating clip is 4-5/16" long x 2.375" high. The base clip is 16-gauge steel. The tab is 22-gauge steel. The VSRLCLIP is secured to the purlins with two 1/4-14 x 1-1/4" long Hex Head Drill Point (TEK 3) screws with washer by SFS. Use fasteners long enough to ensure a minimum penetration of 3 pitches of thread below the steel purlin.

Panel Side Laps: Panels to be snapped into place over each clip location.

Panel Edges to Steel Purlins: Secure the metal roofing panels to the steel purlins with the VSRLCLIP. The floating clip is 4-5/16" long x 2.375" high. The base clip is 16-gauge steel. The tab is 22-gauge steel. The VSRLCLIP is secured to the purlins with two 1/4-14 x 1-1/4" long Hex Head Drill Point (TEK 3) screws with washer by SFS. Use fasteners long enough to ensure a minimum penetration of 3 pitches of thread below the steel purlin.

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.

Panel Ends and End Laps: 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.