

Product Evaluation

RC448 | 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-448

Effective Date: February 1, 2020

Re-evaluation Date: February 2024

Product Name: 24-Gauge Steel Central Seam Plus Standing Seam Roofing Panel (with Wind Clamps) Installed Over Steel Purlins

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

General Description:

The Central Seam Plus standing seam steel roofing panel is a minimum 24-gauge steel panel that has a maximum coverage width of 24". The metal roofing panels have a 3" rib height. The metal roofing panel has a yield strength of 50,000 psi. The installation of this panel requires the use of a wind clamp as specified in the evaluation report.

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 Seam Plus Standing Seam Roofing Panel (with Wind Clamps) Installed Over Steel Purlins

Design wind pressure	Steel purlin spacing	Clip spacing
-176.5 psf	1'-0" on center	1'-0" on center
-55.8 psf	5'-0" on center	5'-0" on center

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 HW2122 Low Sliding steel clips and S5 DL Wind Clamp (HW-569). Regarding the HW2122 Low Sliding steel clips, the base clip is 5" long x 2.375" high 14-gauge steel. The clip top is 2" wide x 2.990" high 20-gauge steel. The S5 DL wind clip (HW-569) is fastened to the panel seam and over each clip. The base clip is secured to the purlins with two 1/4-14 x 1-1/4" long HWD self-driller 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 HW2122 Low Sliding steel clips and S5 DL Wind Clamp (HW-569). Regarding the HW2122 Low Sliding steel clips, the base clip is 5" long x 2.375" high 14-gauge steel. The clip top is 2" wide x 2.990" high 20-gauge steel. The S5 DL wind clip (HW-569) is fastened to the panel seam and over each clip. The base clip is secured to the purlins with two 1/4-14 x 1-1/4" long HWD self-driller 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.