

Product Evaluation

RC202 | 0322

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-202

Effective Date: March 1, 2022

Re-evaluation Date: March 2026

Product Name: Double-Lock-Zee-Lock Standing Seam Steel Roofing Panels Installed over Steel Purlins

Manufacturer: Berridge Manufacturing Company
6515 Fratt Road
San Antonio, TX 78218
(210) 650-3050

General Description:

The Double-Lock Zee-Lock metal roofing panels are standing seam steel roofing panels. The steel roofing panels have 16" of coverage. The steel roofing panels have a 2" rib height. The steel roofing panels are manufactured from minimum 24-gauge coated steel that conform to ASTM A792, Grade 40, with a minimum yield strength of 40,000 psi.

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 Minimum 24-gauge Double-Lock-Zee-Lock Steel Roofing Panels to Steel Purlins

Design Wind Pressure	Purlins	Attachment of Panel to Steel Purlins
-62.5 psf	Minimum 16-gauge; 5'-0" on center	Two fasteners at 60" o.c.
-120.0 psf	Minimum 16-gauge; 2'-0" on center	Two fasteners at 24" 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: Berridge Manufacturing Company steel "CEE" or "ZEE" purlins. The minimum thickness of the steel and the maximum spacing of the purlins must be as specified in Table 1.

Attachment of Metal Roof Panels to the Steel Purlins: The steel roofing panels must be secured to the steel purlins with two (2) 1/4-14 x 1" DP3 pancake head screws manufactured by Triangle Fasteners and with Zee-Rib clips (2" high) manufactured by Berridge Manufacturing Company. The Zee-Rib clips are minimum 24-gauge galvanized steel with a yield strength of 40 ksi. The Zee-Rib clips are continuous and extend the length of the steel roofing panels. The Zee-Rib clips are secured to the steel purlins with the screws. The fasteners must be long enough to ensure a minimum penetration of 3 pitches of thread below the steel deck. The fasteners must be located at each steel purlin.

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.