

Product Evaluation

RC502 | 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-502

Effective Date: March 1, 2022

Re-evaluation Date: March 2026

Product Name: Tee-Lock 24-Gauge Steel Standing Seam Roofing Panels Installed over Steel Purlins

Manufacturer: Berridge Manufacturing Co.
6515 Fratt Rd.
San Antonio, TX 78218
(210) 650-3050

General Description:

The Tee-Lock steel roofing panels are steel standing seam roofing panels. The steel roofing panels have a maximum 18" of coverage. The steel roofing panels have a 2-3/8" rib height. The steel roofing panels are manufactured from minimum 24-gauge coated steel that conforms to ASTM A792, with a 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 Pressure: The design pressure uplift load resistance must be specified in Table 1 for panels with 18" exposure and as specified in Table 2 for panels with 15" exposure.

Roof Slope: The steel roofing panels must be installed on roof with a roof slope as low as 2:12.

Installation over an Existing Roof Covering: Not permitted.

Table 1. Attachment of 18" Wide, Minimum 24-gauge Steel Tee-Lock Standing Seam Roofing Panels to Steel Purlins

Design Wind Pressure	Purlins	Attachment of Panel to Steel Purlins
-33.8 psf	Minimum 16-gauge; 5'-0" on center	Two fasteners
-67.7 psf	Minimum 16-gauge; 2'-6" on center	Two fasteners

Table 2. Attachment of 15" Wide, Minimum 24-gauge Steel Tee-Lock Standing seam Roofing Panels to steel Purlins

Design Wind Pressure	Purlins	Attachment of Panel to Steel Purlins
-36.4 psf	Minimum 16-gauge; 5'-0" on center	Two fasteners
-85.9 psf	Minimum 16-gauge; 2'-6" on center	Two fasteners

Installation:

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

Steel Purlins: Berridge Manufacturing Company steel "CEE", "ZEE", or "HAT Section" purlins. The minimum thickness of the steel and the maximum spacing of the purlins must be as specified in Table 1 and 2.

Attachment of Steel Roofing Panels to the Steel Purlins: The steel roofing panels must be secured to the steel purlins with 6" long, 16-gauge, Grade 50 steel, one-piece, low fixed clips. Each clip is secured to the steel purlins with two #12-14 x 1-1/4" Fenderhead T-3 self-drilling screws manufactured by Dynamic Fastener Services, Inc. The fasteners must be long enough to ensure a minimum penetration of 3 pitched of thread below the purlins. The fasteners must be located at each steel purlin.

Trims, Closures, and Accessories: Components, such as 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.