



Product Evaluation

RC506 | 1117

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-506

Effective Date: November 1, 2017

Re-evaluation Date: November 2021

Product Name: Double-Lock Zee-Lock 0.032" Aluminum Standing Seam Roof Panels Installed over a Plywood Deck

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 aluminum standing seam roofing panels. The metal roofing panels have a maximum 16" of coverage. The metal roof panels have a 2" rib height. The metal roofing panels are manufactured from 0.032", 3105-H14 aluminum with a yield strength of 18,000 psi.

Limitations:

Roof Framing: The metal roofing panels must be installed over a minimum 15/32" APA rated plywood roof deck.

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 metal roofing panels may be installed on roofs with a roof slope as low as 2:12.

Table 1

Attachment of minimum 0.032" Aluminum Double Lock Zee-Lock roofing panels to minimum 15/32" plywood roof deck

Design Wind Pressure	Attachment to 15/32" Plywood
-78.5 psf	Two Fasteners @ 24" o.c.
-191.0 psf	Two Fasteners @ 6" o.c.

Installation Over an Existing Roof Covering: Not permitted.

Installation:

General: The metal roofing panels must be installed in accordance with the manufacturer’s recommended installation instructions and this evaluation report.

Panels: The metal roofing panels must be secured to the roof framing as specified in Table 1 and in accordance with this section.

Underlayment: A minimum of one layer of No. 30 (Type II) asphalt must be used. The underlayment must comply with one of the following: ASTM D 226, ASTM D 4869, or ASTM D 1970. The felt must be installed with minimum 2" side laps and minimum 2" end laps. The felt must be fastened to the roof deck with corrosion resistant fasteners in accordance with the manufacturer’s installation instructions. Fasteners to be applied along the overlaps a maximum of 36" on center.

Attachment of Metal Roof Panels to the Wood Deck: The metal roofing panels must be secured to the wood deck with floating clips (22-gauge, stainless steel top (4.313" long x 0.620" wide x 2.230" high); 16-gauge, galvanized steel bottom (2.00" long x 1.150" wide x 0.565" high)). Each clip is secured to the wood deck with two #14-10 x 2" Panel-Tite HWH Type S fasteners without washers manufactured by Triangle Fastener Corporation. The fasteners must be long enough to ensure a minimum penetration of 3 pitches of thread below the wood deck. Each clip is secured to the panels with a 180 degree seam using a mechanical seamer.

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 installation. Use corrosion resistant fasteners as specified in the IRC, the IBC, and the Texas Revisions.