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Product Evaluation

RC748 | 0424

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-748

Effective Date: April 1, 2024
Re-evaluation Date: April 2028

Product Name: AR 150 SL Standing Seam Metal Panel Installed Over Plywood Deck

Manufacturer: Absolute Roofing
2920 N. Twin City Hwy.
Nederland, TX 77627
(409) 724-0304

General Description:
AR 150 SL is a snap lock standing seam metal roof system. The 24-gauge steel material is ASTM A 792 AZ-55, Grade 50, with a 50 ksi yield point with optional paint finishes. The maximum height of the female rib is 1-1/2". The panel has a maximum width of 16-5/8". The panel can be formed in continuous lengths and interlocks to adjoining panels by snapping male and female legs together and fastening the panel to the deck using a concealed fastener system (clips with screws). The panel rollformer is from New Tech Machinery Corp. with an SS450SL panel profile.

Limitations:
Roof Decking: Install the metal roof panels with clips over a minimum 15/32" thick plywood deck.

New Roof Deck 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 wind uplift pressure must be as specified in Tables 1.

Installation Over an Existing Roof Covering: Installation over an existing roof covering is limited to a maximum of one existing layer of composition shingles, wood shingles or shakes, built-up roofing, or roll roofing applied over an existing solid roof deck of minimum 15/32" plywood. Note: Inspection of existing roof deck must be made prior to the installation of the roofing panels. The condition of the existing roof deck must be acceptable to receive the metal roofing panels before roof panel installation can begin.

Roof Slope: The metal roofing panels may be installed on roofs with a roof slope as low as 3:12.

Table 1 Attachment of 24-gauge AR 150 SL standing seam roof panels to minimum 15/32" Plywood deck

Panel Clip Spacing	Design Wind Pressure (psf)
18" on center	-52.5
15" on center	-60.9
12" on center	-69.3
9" on center	-77.6
6" on center	-86.0

Installation:

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

Roof Framing Members: Space the roof-framing members at maximum of 24" on center.

Underlayment: Use a minimum of one layer of No. 30 (Type II) asphalt felt. The underlayment used must comply with one or more of the following: ASTM D 226, ASTM D 4869, or ASTM D 1970. Install the underlayment with 6" side laps and 3" end laps. The underlayment must be applied with corrosion resistant fasteners in accordance with the manufacturer's installation instructions, the IRC, or the IBC.

Attachment of Roof Panels to Plywood Deck: The panels are secured to the deck with one-piece, 24-gauge, galvanized steel clips. The clips are 1-3/4" wide and 1-1/4" high. Each clip is secured to the roof deck using two #10-12 x 1" long, No. 2 Phillips Drive, Pancake head screws. The fasteners must be long enough to ensure a minimum penetration of 1/4" below the roof deck. (Note: if the roof panels are installed over an existing roof covering, then the fastener length must be increased so that the fasteners are long enough to ensure a minimum penetration of 1/4" below the existing roof deck). The maximum allowable spacing of the clips is specified in Table 1.

Panel Seam: The panel is seamed to a 180-degree seam (double lock) with a mechanical seamer.

Panel Ends and Edges: As required by the manufacturer.

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.