

Product Evaluation

RC755 | 0924

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-755

Effective Date: September 1, 2024

Re-evaluation Date: September 2028

Product Name: DS 150 Snap Lock 24-Gauge Steel Standing Seam Roofing Panels Installed Over an OSB Roof Deck

Manufacturer: Dalco Services, LLC
1177 Butler Rd.
League City, TX 77573
(832) 408-5517

General Description:

DS 150 is a snap lock standing seam metal roof system. The 24-gauge steel material is ASTM A 792 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 Deck: Install metal roof panels with clips over minimum 7/16" thick OSB decking.

New Roof Deck Attachment: The roof deck must meet or exceed the uplift requirements of IRC or the IBC.

Design Wind Pressures: For installations to minimum 7/16" thick OSB deck, Table 1 specifies the design wind pressure limitations.

Table 1: Minimum 24-gauge DS 150 Panels to Minimum 7/16" OSB Deck.

Design Pressure (uplift)	Panel Seam	Panel Clip	Panel Clip Fasteners	Panel Clip Spacing
-41.7 psf	Snap Lock	Fixed Clip	(2) #10-12 pancake head screws	24" on center
-54.0 psf				18" on center
-66.2 psf				12" on center
-78.5psf				9" on center

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

Installation over 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 7/16" OSB.

Note: inspection of existing roof deck must be made prior to the installation of the roof panels. The condition of the existing roof deck must be acceptable to receive the metal roofing panels before roof panel installation can begin.

Installation:

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

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

Underlayment: Use a minimum of one layer of No. 30 (Type II) asphalt felt. The underlayment 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. Apply the underlayment with corrosion-resistant fasteners in accordance with the manufacturer's installation instructions and the IRC and the IBC.

Attachment of Roofing Panels to OSB 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 (2) No. 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. Clips are spaced as specified in Table 1. (Note: if the roofing 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 OSB roof decking.)

Panel Ends and Edges: As required by the manufacturer.

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. All fasteners must be corrosion resistant as specified in the IRC and the IBC.