

## Product Evaluation

RC293 | 1218

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-293

**Effective date:** December 1, 2018

**Re-evaluation date:** November 2022

**Product name:** LS 150 DBL Steel Standing Seam Roofing Panels Installed over either a Plywood Deck or an OSB Deck

**Manufacturer:** Lone Star Aluminum Metal Roofing Systems, Inc.  
1917 Flour Bluff Drive  
Corpus Christi, TX 78418  
(361) 939-1101

**General description:**

LS 150 metal roof panels are standing seam roof panels that are manufactured from 24-gauge, coated steel, with a minimum yield strength of 50,000 psi. The steel roofing panels are 16" wide with a 1-1/2" deep double-lock side joint. The available panel coatings are Galvalume, Galvanized, Acrylic, Siliconized Polyester, Urethane and PVF2 (Kynar).

**Limitations:**

**Roof Deck:** The metal roofing panels must be installed over a solid deck or either plywood or OSB as specified in this evaluation report.

**New Roof Deck Attachment:** The roof deck must meet or exceed the uplift requirements of the IRC or the IBC and must be as required for resistance for wind loads.

**Roof Slope:** The metal roofing panels may be installed on roofs with a roof slope as low as 1:12 and as high as 8:12.

**Design Pressure:** The design pressure uplift load resistance must be as specified in Table 1, Table 2, or Table 3.

**Table 1.** Attachment of 24-gauge, 16" Wide LS 150 DBL Standing Seam Roofing Panels to Minimum 15/32" Plywood Deck

Design Wind Pressure (psf)	Clip Spacing	Clip Fastener
-78.6	6" o.c.	Two No. 10-12 x 1-1/2"
-71.0	24" o.c.	Two No. 10-12 x 1-1/2"

**Table 2.** Attachment of 24-gauge, 16" Wide LS 150 DBL Standing Seam Roofing Panels to Minimum 19/32" Plywood Deck

Design wind pressure (psf)	Clip Spacing	Clip Fastener
-84.0	6" o.c.	Two No. 10-12 x 1-1/2"
-71.0	24" o.c.	Two No. 10-12 x 1-1/2"

**Table 3.** Attachment of 24-gauge, 16" Wide LS 150 DBL Standing Seam Roofing Panels to Minimum 5/8" OSB

Design wind pressure (psf)	Clip Spacing	Clip Fastener
-86.0	6" o.c.	Two No. 10-12 x 1-1/2"
-71.0	24" o.c.	Two No. 10-12 x 1-1/2"

**Installation over Existing Roof Covering:** Not Permitted.

### Installation:

**General Installation Requirements:** The metal roofing panels must be installed in accordance with the manufacturer's installation instructions and this product evaluation.

**Underlayment:** A minimum of one layer of 40 mil W.R. Grace Ice and Water Shield self-adhered underlayment or other equivalent self-adhering underlayment complying with ASTM D 1970 applied over the solid plywood or solid OSB roof deck. Underlayment installed as required by the manufacturer.

**Anchorage to Roof Deck:** Fasten the metal roof panels in accordance with Tables 1-3. Secure the metal roofing panels to the roof deck with AMSI Corporation panel clips (Part no. 150-FC-24-G). The panel clip is 24-gauge, L-shaped galvanized steel that measures 2" wide x 1.58" high with the outstanding leg of 0.875". Secure each clip to the roof deck with two minimum No. 10-12 (12 threads per inch) x 1-1/2" long Pancake head wood screws as indicated in Tables 1-3. Use fasteners long enough to penetrate completely through the roof deck with a minimum exposure of 3/16" below the underside of the roof deck. Locate the clips at the panel ends and spaced as indicated in Tables 1-3.

**Panel Seam:** The panel side joints are seamed to a double lock with a power seamer.

**Panel Ends:** As required by the manufacturer.

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**Trims, Closures and Accessories:** Components such as eave, rake rim, rake trim, hip trim, and valley trim shall be as required by the manufacturer.

**Alternative Fasteners:** Alternative fasteners of equal or greater strength may be substituted.

**Note:** Keep the manufacturer's installation instructions available on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC, the IBC, and the Texas Revisions.