

Product Evaluation

RC731 | 1023

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-731

Effective Date: October 1, 2023

Re-evaluation Date: October 2027

Product Name: SSR-LOK 210 Panel Installed Over Steel Purlins

Manufacturer: Encore Steel Building Co.
8901 First Industrial Drive
Southaven, MS 38671
(833) 733-4766

General Description:

The SSR-LOK 210 standing seam metal roof panels have maximum 16" of coverage. The metal roof panels have a 2" rib height and a mechanical seamed side lap. The panels are manufactured from minimum 24-gauge Galvalume coated steel that conform to ASTM A792, Grade 50, with a minimum yield strength of 50,000 psi. An optional paint finish is available. The panel rollformer is manufactured by New Tech Machinery Corp. with SSQ210A Panel Profile.

Limitations:

Framing: The metal panels must be installed over open 16-gauge steel purlins.

New Framing Attachment: The roof framing must meet or exceed the wind pressure requirements of the IRC or IBC and must be installed as required for resistance to wind loads.

Design Wind Pressures: The design pressure negative wind 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 1/2:12.

Table 1: Attachment of 24-gauge, 16" wide SSR-LOK 210 roof panels to 16-gauge steel purlins

Design Wind Pressure (psf)	Purlins	Attachment to Panels to Steel Purlin
-54.0	Minimum 16 Ga. 5'-0" on center	5'-0" on center
-64.7	Minimum 16 Ga. 4'-6" on center	4'-6" on center
-75.3	Minimum 16 Ga. 4'-0" on center	4'-0" on center
-86.0	Minimum 16 Ga. 3'-6" on center	3'-6" on center
-96.7	Minimum 16 Ga. 3'-0" on center	3'-0" on center
-107.3	Minimum 16 Ga. 2'-6" on center	2'-6" on center
-118.0	Minimum 16 Ga. 2'-0" on center	2'-0" on center

Installation:

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

Panels: Panels must be secured to the steel purlins in accordance with Table 1. Refer to Figure 1 in this evaluation report for installation instructions.

Underlayment: N/A

Attachment of Metal Roof Panels to the Steel Purlins:

The panels must be secured to the purlins with sliding clips using two (2) 1/4"-14 x 1-1/4" HWH SD3 screws. Two screws per clip are required. The fasteners must be long enough to ensure a minimum penetration of 3 pitches of thread below the steel purlin.

Panel Clip: NC-33003 sliding clips (2-1/2" tall; 22-gauge top; 16-gauge base; 50 ksi steel, G90 galvanized steel) by Logan Stamping, Inc.

Panel Seam: Adjacent panels are seamed together mechanically along the side laps with a mechanical seamer to a 180-degree seam.

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.