

Product Evaluation

RC311 | 1020

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-311

Effective Date: October 1, 2020

Re-evaluation Date: October 2024

Product Name: 24-gauge VS 216 QuadLok Steel Standing Seam Roof Panels Installed Over Steel Purlins

Manufacturer: Schulte Building Systems, Inc.
17600 Badtke Road
Hockley, TX 77447
(281) 304-6111

General Description:

This evaluation report is for VS 216 Quadlok metal roof panels installed over steel purlins. The VS 216 QuadLok panel is minimum 24-gauge galvalume steel with an optional paint finish. The 24-gauge metal roof panels have an actual coverage of 16" and a standing seam rib height of 2". The ribs are seamed to a quadlok seam. The metal roof panels conform to ASTM A792, with a minimum 50 ksi yield point.

Limitations:

Roof Framing: The metal roof panels must be installed over open steel purlins.

New Roof Framing Attachment: The roof framing must meet or exceed the uplift requirements of the IRC or IBC and must be installed in a manner to resist wind loads as required.

Design Wind Pressures: The design pressure uplift load resistance must be as specified in Table 1.

Roof Slope: The metal roof panels may be installed on roofs with a roof slope as low as 1/4:12 if sealant is used on the panel side laps. If sealant is not used on the panel side laps, then the minimum roof slope is 3:12.

Installation Over an Existing Roof Covering: Not permitted.

Table 1 Attachment of Minimum 24-gauge VS 216 Quadlok Steel Roof Panels to Steel Purlins

Design Wind Pressure (psf)	Purlins	Attachment of Panel to Steel Purlins
-163.0	Minimum 16-gauge; 2'-0" on center	MC1203 or MC1213 clips @ 2'-0" on center
-147.1	Minimum 16-gauge; 2'-6" on center	MC1203 or MC1213 clips @ 2'-6" on center
-131.1	Minimum 16-gauge; 3'-0" on center	MC1203 or MC1213 clips @ 3'-0" on center
-115.2	Minimum 16-gauge; 3'-6" on center	MC1203 or MC1213 clips @ 3'-6" on center
-99.2	Minimum 16-gauge; 4'-0" on center	MC1203 or MC1213 clips @ 4'-0" on center
-83.3	Minimum 16-gauge; 4'-6" on center	MC1203 or MC1213 clips @ 4'-6" on center
-67.3	Minimum 16-gauge; 5'-0" on center	MC1203 or MC1213 clips @ 5'-0" on center

Installation:

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

Steel Purlins: The minimum thickness of steel and the maximum spacing of the purlins must be as specified in Table 1.

Underlayment: N/A.

Attachment of Metal Roof Panels to the Steel Purlins: The metal roof panels must be secured to the steel purlins with two (2) No. 1/4 -14 x 1-1/2" long HWH self-driller screws and MC1203 or MC1213 slider clips (the clip tab is 0.032" G90 galvanized steel and the clip base is 0.060" G90 galvanized steel). The spacing of the clips must be as specified in Table 1. The fasteners must be long enough to ensure a minimum penetration of 3 pitches of thread below the steel purlin.

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.