

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION

Effective September 1, 2013

RC-259

*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 shall be subject to reevaluation in **September 2017**.*

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.

UC-14 Standing Seam Metal Roofing Panels Installed Over Steel Purlins, manufactured by

Firestone Building Products, LLC
250 West 96th Street
Indianapolis, Indiana 46260
Telephone: (800) 428-4442

will be accepted for use in areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

This evaluation report is for the UC-14 standing seam metal roofing panels installed over steel purlins. The standing seam metal roof panels in the evaluation report are either 24 gauge steel or 0.032" aluminum. The UC-14 metal roof panels have a maximum width of 16 inches or 18 inches for the steel standing seam panels and 18 inches for the aluminum standing seam panels. The metal roof panels have a 1 3/4" tall snap lock standing seam rib. The 24 gauge steel material is ASTM A 792 AZ-50 hot dipped Galvalume or ASTM A 653 G-90 galvanized steel with an optional Kynar 500/Hylar 5000 painted finish. The aluminum is ASTM B 209 minimum 0.032" thick.

LIMITATIONS

Roof Framing: The standing seam metal roofing panels shall be installed over minimum 16 gauge steel purlins.

New Roof Framing Attachment: The roof framing shall meet or exceed the uplift requirements of the International Residential Code or International Building Code and shall be installed as required for resistance to wind loads.

Design Wind Pressures: The design pressures shall be as specified in Tables 1 through 3.

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

Installation Over an Existing Roof Covering: Not permitted.

Table 1
24 Gauge UC-14, 16" Wide, Standing Seam Panels Over
Minimum 16 gauge Steel Purlins

Design Pressure (psf)	Purlin Spacing (feet)
-50.0	1.0
-45.8	1.5
-41.7	2.0
-37.5	2.5
-33.3	3.0
-29.2	3.5
-25.0	4.0

Table 2
24 Gauge UC-14, 18" Wide, Standing Seam Panels Over
Minimum 16 gauge Steel Purlins

Design Pressure (psf)	Purlin Spacing (feet)
-47.5	1.0
-42.9	1.5
-38.3	2.0
-33.8	2.5
-29.2	3.0
-24.6	3.5

Table 3
0.032" Aluminum UC-14, 18" Wide, Standing Seam Panels Over
Minimum 16 gauge Steel Purlins

Design Pressure (psf)	Purlin Spacing (feet)
-27.5	1.0
-25.4	1.5
-23.3	2.0

INSTALLATION INSTRUCTIONS

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

Roof Framing Members: The steel purlins shall be spaced as specified in Tables 1 through 3.

Steel Purlins: The steel purlins shall be minimum 16 gauge steel.

Underlayment: N/A

Attachment of Metal Roof Panels to the Steel Purlins: The panels are secured to the steel purlins with 18 gauge UC-14 fixed clips. The base of the clip is 3.75" long and 1.15" wide and is fabricated from 300 series stainless steel. The interlocking upper tab is 3.5" wide and 1.875" long and is fabricated from 300 series stainless steel. One (1) clip per purlin is required (the clip spacing shall be the spacing of the purlins as specified in Tables 1 and 2). Each clip is secured to the steel purlins with two (2) No. 10-16 x 1"

Pancake Self Driller screws. The fasteners shall be long enough to penetrate ensure a minimum penetration of 3 pitches of thread below the steel purlin.

Panel Ends and End Laps: The panel ends and endlaps shall be secured to the steel purlins as required by the manufacturer.

Panel Edges: The panel edges shall be secured to the steel purlins as required by the manufacturer.

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

No. 10-16 x 1" Pancake Self Driller

- Ultimate withdrawal (pullout) \geq 784 lbs. in minimum 16 gauge steel.

Note: The manufacturer's installation instructions shall be available on the job site during the installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.