

Product Evaluation

RC582 | 0922

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-582

Effective Date: September 1, 2022

Re-evaluation Date: September 2026

Product Name: CF-16 Steel Roofing Panels Installed Over a Plywood Deck

Manufacturer: Hilco Metal Roofing Supply
12503 Highway 6
Navasota, TX 77868
(936) 825-0500

General Description:

The CF-16 steel roofing panels are 24-gauge Galvalume steel with an optional paint finish. The 1" fastener flange steel roofing panels have a maximum coverage of 16". The panel has a 1" tall snap lock rib with a nail fastener flange with 1" x 1/4" slots at 5-3/16" on center. The 24-gauge steel material is ASTM A 792 AZ55, Grade 50, with a minimum 50 ksi yield point with optional painted finishes. The panel rollformer is manufactured by New Tech Machinery Corp.

Limitations:

Rood Deck: The steel roofing panels must be installed over a minimum 15/32" plywood deck.

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 to wind loads.

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

Design Wind Pressures: The design wind pressure uplift resistance is specified in Table 1.

Table 1

Attachment of 24-gauge CF-16 Steel Roofing Panel to Nominal 15/32" Plywood Deck

Design Wind Pressure (psf)	Attachment of Panel to 15/32" Plywood Deck
-138.5	Fasteners @ 5-3/16" on center
-56.0	Fasteners @ 15-9/16" on center

Installation Over an 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. If the roof panels are attached directly to the roof deck, then the existing roof deck must be nominal 15/32" plywood wood structural panels. Note: Inspection of the existing roof deck must be made before installing the roofing panels. The condition of the existing roof deck must be acceptable to receive the roofing panels before the roofing panel installation can proceed.

Installation:

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

Underlayment: A minimum of one layer of No. 30 (Type II) asphalt felt must be used. The underlayment used must comply with one or more of the following: ASTM D 226, ASTM D 4869, or ASTM D 1970. The felt must be installed with 6" side laps and 3" end laps. The underlayment must be fastened to the roof deck with galvanized fasteners in accordance with the IRC and the IBC.

Installation: The steel roofing panels must be secured to the roof deck using minimum No. 10-12 x 1" Type A Pancake head screws. The fasteners must be long enough to penetrate completely through the plywood deck with a minimum exposure of 1/4" below the underside of the plywood deck. Fastener must be spaced as specified in Table 1.

Panel Ends: As required by the manufacturer.

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Trim, Closures, and Accessories: Components such as eave trim, rake 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.