

Product Evaluation

RC634 | 1220

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-634

Effective Date: December 1, 2020

Re-evaluation Date: December 2024

Product Name: L7TX-FFH100 Steel Roof Panels Installed Over a Plywood Deck

Manufacturer: Level 7 Construction LLC
1014 Legend Spring Drive
Katy, TX 77494
(281) 770-3221

General Description:

The L7TX-FFH100 metal roofing panel is a minimum 24-gauge galvalume steel panel with an optional paint finish. The metal roofing panels have a maximum coverage of 16". The panel has a 1" tall snap lock with a nail fastener flange with 1" x 1/4" slots at 5-3/16" o.c. The metal roofing panels conform to ASTM A 792 AZ55, Grade 50, with a minimum 50 ksi yield point. The panel rollformer is from New Tech Machinery Corp.; 1" fastener flange profile.

Limitations:

Roof Framing: The L7TX-FFH100 metal roofing panels must be installed over a minimum 15/32" plywood roof deck.

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

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 applied over an existing solid roof deck of minimum 15/32" plywood. Note: Inspection of existing roof deck must be made prior to the installation of the roofing panels. The condition of the existing roof deck must be acceptable to receive the metal roofing panels before roof panel installation can begin

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

Roof Slope: The roofing panels must be installed on roofs with a roof slope not less than 3:12.

Table 1:

Attachment of Minimum 24-Gauge Steel L7TX-FFH100 Roof Panels to a Minimum 15/32" Plywood Roof Deck.

Design Pressure (psf)	Attachment of Panel to Plywood Deck	Fastener Location
-56.0	15-9/16" on center	Nail Slot in Flange
-97.3	10-3/8" on center	Nail Slot in Flange
-138.5	5-3/16" on center	Nail Slot in Flange

Installation:

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

Roof Framing Member Spacing: The roof-framing members spacing must not exceed 24" on center.

Roof Deck: The roof deck must be solidly sheathed with minimum 15/32" plywood.

Underlayment: Use a minimum of one layer of No. 30 (Type II) asphalt felt. The underlayment used must comply with one or more of the following: ASTM D 226, ASTM D 4869, or ASTM D 1970. Install the underlayment with 6" side laps and 3" end laps. Apply the underlayment with corrosion-resistant fasteners in accordance with the manufacturer's installation instructions. Apply fasteners along the overlaps not farther apart than 36" on center.

Roof Panels: The roofing panels must be secured to the roof framing as specified in Table 1.

Attachment of Metal Roof Panels to Plywood Deck: The metal roofing panels must be secured to the plywood deck with minimum No. 10-12 x 1" long Pancake Type A screws. The fastener location and the spacing of the fasteners must be as specified in Table 1. The fasteners must be long enough to ensure a minimum penetration of 1/4" below the wood deck.

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.

Panel Ends, Panel Edges, and Panel End Laps: 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.