

## Product Evaluation

RC635 | 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-635

**Effective Date:** December 1, 2020

**Re-evaluation Date:** December 2024

**Product Name:** L7TX-SSH100 Steel Standing Seam 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-SSH100 metal roofing panels are minimum 24-gauge galvalume steel standing seam roofing panels with an optional paint finish. The metal roofing panels have a maximum 18" of coverage. The metal roof panels have a 1" tall mechanical double lock standing seam rib. The metal roofing panels are manufactured from minimum 24-gauge steel that conform to ASTM A792, AZ55, Grade 50, with a yield strength of 50,000 psi. The panels must be formed within the panel rollformer specifications and tolerances. The rollformer is a Panel Rollformer New Tech Machinery Corp., SS100 Profile.

### Limitations:

**Roof Framing:** The L7TX-SSH100 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 metal roofing panels may be installed on roofs with a roof slope as low as 2:12 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.

**Table 1:**

Attachment of Minimum 24-Gauge Steel L7TX-SSH100 Standing Roof Panels to a Minimum 15/32" Plywood Roof Deck.

Design Pressure (psf)	Panel Seam	Panel Clip	Clip Spacing	Clip Fastener
-93.5	180 Degree (Double Lock) Seam	30-gauge, 1-7/16" wide, 1-1/16" high, galvanized steel fixed clips	18"	Two (2) No. 10-9 x 1" pancake head Type A wood screws
-104.8	180 Degree (Double Lock) Seam	30-gauge, 1-7/16" wide, 1-1/16" high, galvanized steel fixed clips	15"	Two (2) No. 10-9 x 1" pancake head Type A wood screws
-116.0	180 Degree (Double Lock) Seam	30-gauge, 1-7/16" wide, 1-1/16" high, galvanized steel fixed clips	12"	Two (2) No. 10-9 x 1" pancake head Type A wood screws
-127.3	180 Degree (Double Lock) Seam	30-gauge, 1-7/16" wide, 1-1/16" high, galvanized steel fixed clips	9"	Two (2) No. 10-9 x 1" pancake head Type A wood screws
-138.5	180 Degree (Double Lock) Seam	30-gauge, 1-7/16" wide, 1-1/16" high, galvanized steel fixed clips	6"	Two (2) No. 10-9 x 1" pancake head Type A wood screws

**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.

**Roofing Panels:** The panels are secured to the wood deck using fixed clips (one piece, 0.0115" thick, 30-gauge, 33 ksi galvanized steel, 1-7/16" long) with two (2) No. 10-9 x 1" long Pancake Type A screws. The fasteners must be long enough to ensure a minimum penetration of 1/4" below the roof deck. (Note: if the metal roof panels are installed over an existing roof covering, then the fastener length must be increased so that the fasteners are long enough to ensure a minimum penetration of 1/4" below the existing roof deck). The maximum allowable spacing of the clips is specified in Table 1.

**Panel Seam:** The panel is seamed to a 180-degree seam (double lock) with a mechanical seamer.

**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.