

## Product Evaluation

RC372 | 0820

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-372

**Effective Date:** August 1, 2020

**Re-evaluation Date:** August 2024

**Product Name:** 24-Gauge or 22-Gauge LT-175 Steel Roofing Panels Installed Over Steel Purlins

**Manufacturer:** Northwest Roof Tile & Metal LLC  
6846 Theall Road  
Suite 400  
Houston, TX 77066  
(281) 893-8382

### General Description:

The LT-175 metal roof panels are minimum 24-gauge or 22-gauge galvalume steel panels with an optional paint finish. The metal roof panels have a maximum coverage of 18". The panel has a 1-3/4" snap lock standing seam rib. The metal roof panels conform to ASTM A792, AZ 55, Grade 50, with a 50 ksi yield point with optional paint finishes. The metal roof panels must be formed within the panel rollformer specifications and tolerances.

Panel Rollformer: Schleich Quadro-Plus Rollformer  
Metalforming, Inc.  
100 International Drive  
Peachtree City, Georgia 30269

**Limitations:**

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

**New Roof Deck Attachment:** The roof deck 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 wind uplift pressure load resistance must be as specified in Table 1 and 2.

**Roof Slope:** The metal roof 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** Attachment of Minimum 24-gauge LT-175 Steel Roof Panels to Steel Purlins

Design Wind Pressure (psf)	Panel Clip / Steel Purlin Spacing	Panel Clip
-55.0	1'-0"	18-gauge, 3-1/2" long, fixed clip with two (2) No. 10-16 x 1" long Pancake Self Driller by SFS Intec, Inc.
-52.5	1'-6"	
-50.0	2'-0"	
-47.5	2'-6"	
-45.0	3'-0"	
-42.5	3'-6"	
-40.0	4'-0"	

**Table 2** Attachment of Minimum 22-gauge LT-175 Steel Roof Panels to Steel Purlins

Design Wind Pressure (psf)	Panel Clip / Steel Purlin Spacing	Panel Clip
-72.5	1'-0"	18-gauge, 3-1/2" long, fixed clip with two (2) No. 10-16 x 1" long Pancake Self Driller by SFS Intec, Inc.
-70.8	1'-6"	
-69.2	2'-0"	
-67.5	2'-6"	
-65.8	3'-0"	
-64.2	3'-6"	
-62.5	4'-0"	

**Installation:**

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

**Panels:** The metal roofing panels must be secured to the roof deck as specified in Tables 1 and 2 and in accordance with this section.

**Roof Framing Members:** The steel purlins must be a minimum 16-gauge steel and spaced in accordance with Tables 1 and 2.

**Attachment of Metal Roof Panels to Roof Deck:** The metal roof panels must be secured to the roof deck as follows:

**Roof Panels to Steel Purlins:** The panels must be secured to the steel purlins us an 18-gauge, 3-1/2" long, fixed clip with two (2) No. 10-16 x 1" long Pancake Self Driller by SFS Intec, Inc. The clip spacing must be as specified in Tables 1 and 2. The fasteners must be long enough to ensure a minimum penetration of 3 pitches below the steel deck.

**Panel Ends, End Laps and Edges:** The panel ends, end laps and edges must be secured in accordance with the manufacturer's installation instructions.

**Trims, Closures and Accessories:** Components such as the eave trim, rake trim, ridge trim, hip trim and valley trim must be installed in accordance with the manufacturer's installation instructions.

**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.