

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION
RC-371

Effective Date: May 1, 2013

*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 **May 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.

24 Gauge LT-175 Metal Roofing Panels Over Steel Deck manufactured by

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

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

The LT-175 metal roofing panel is minimum 24 gauge galvalume steel panels with an optional paint finish. The metal roofing panels have a maximum coverage of $17\frac{3}{4}$ ". The panel has a $1\frac{3}{4}$ " snap lock standing seam rib. The metal roofing panels conform to ASTM A792, AZ 55, Grade 50, with a 50,000 psi yield point with optional paint finishes. The metal roofing 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 roofing panels shall be installed over minimum 22 gauge B steel decking.

New Roof Deck Attachment: The roof decking 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 lateral wind loads.

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

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

Table 1

Attachment of minimum 24 gauge LT-175 metal roofing panels to minimum 22 gauge B steel decking

| Design Wind Pressure (psf) | Panel Seam | Purlin Spacing | Panel Clip | Clip Spacing | Clip Fastener |
|-----------------------------------|-------------------|-----------------------|-------------------|---------------------|----------------------|
| -71 | Snap Lock | 5'-0" o.c. | 20 gauge fixed | 24" o.c. | (2) #14 |
| -108.5 | Snap Lock | 2'-6" o.c. | 20 gauge fixed | 6" o.c. | (2) #14 |

Installation Over an Existing Roof Covering: Not permitted.

INSTALLATION INSTRUCTIONS

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

Panels: The metal roofing panels shall be secured to the roof deck as specified in Table 1 and in accordance with this section.

Roof Framing Members: The steel deck shall be attached to minimum 8 x 2.5Zee16 purlins spaced in accordance with Table 1.

Structural Steel Deck: Minimum 22 gauge B coated steel deck with minimum yield strength of 33 ksi and minimum depth of 1 ½" and a maximum pitch of 6".

Fire Barrier: Minimum ½" thick roof gypsum board with minimum 900 psi compressive strength.

Rigid Insulation: Minimum 1" thick polyiso rigid roof insulation with minimum 20 psi compressive strength.

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

Roof Panels to Steel Structural Deck: The panels shall be installed using a minimum 20 gauge, 2 ¼" long, fixed clip, using minimum two (2) No. 14-13 Dekfast screws by SFS Intec, Inc. The fasteners shall 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 shall 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 shall be installed in accordance with the manufacturer's installation instructions.

Alternative Fasteners: Substitution of equivalent fasteners shall meet the following requirements:

No 14-13 Dekfast Screw by SFS Intec, Inc.
Ultimate withdrawal (pullout) ≥ 540 lbs in 22 gauge steel deck.

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.