



Product Evaluation

RC280 | 1215

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-280

Effective Date: December 1, 2015

Re-evaluation Date: December 2019

Product Name: DECRA Shingle lightweight steel shingles Installed over a Plywood Deck

Manufacturer: DECRA Roofing Systems, Inc.
1230 Railroad Street
Corona, CA 92882
(951) 272-8180

General Description:

The DECRA Shingle panels measure 52" long by 21" wide with installed expose of 49" by 19 3/4". The lightweight steel roofing panels are pressure formed, 26 gauge, and 55 percent aluminum-zinc alloy coated steel. The steel is coated with corrosion-inhibiting acrylic primer, an acrylic resin base coat, an embedded stone granule surface, and a clear acrylic resin binder. Ridge, gable, rake, and hip trim pieces are constructed similar to the panels. Flashing pieces are made from the same material as the panels, but may or may not have the stone granule coating. The panels are installed directly to the roof deck.

Limitations:

- **Roof Decking** - A minimum of 15/32" thick plywood sheathing.
- **New Roof Deck Attachment:** The roof decking must meet or exceed the uplift requirements of the IRC or IBC and must be installed as required for resistance to lateral wind loads.
- **Roof Slope** - Decra shingle panels must not be installed on roof slopes less than 4:12.
- **Design Wind Pressures:** The design pressure uplift load resistance must be as specified in Table 1.

Table 1

SYSTEM	Design Pressure (psf)
1	30
2	52.5

Installation over an Existing Roof Covering: Installation over an existing roof covering is limited to a maximum of one existing layer of composition shingles, built-up roofing, or roll roofing applied over an existing, solid roof deck. The minimum thickness of roof deck must be as required for a new metal roof installation. Note: Inspection of the existing roof deck must be made prior to the installation of the roof panels. The condition of the existing roof deck must be acceptable to receive the metal roofing panels before the metal roofing panel installation proceeds. A layer of underlayment over the existing roof covering is not required.

Installation Instructions:

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

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

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

System 1: The steel panels are installed with a male interlock on the bottom and right edges and a female interlock on the top and left edges. A steel starter strip was utilized the length of the bottom plate. Each panel was secured with four minimum #9 x 1-1/2" long hex head self-drilling screws located in the pre-drilled holes in the panel.

System 2: The steel panels are installed with a male interlock on the bottom and right edges and a female interlock on the top and left edges. A steel starter strip was utilized the length of the bottom plate. Each panel was secured with eight minimum #9 x 1-1/2" long hex head self-drilling screws located in the pre-drilled holes in the panel.

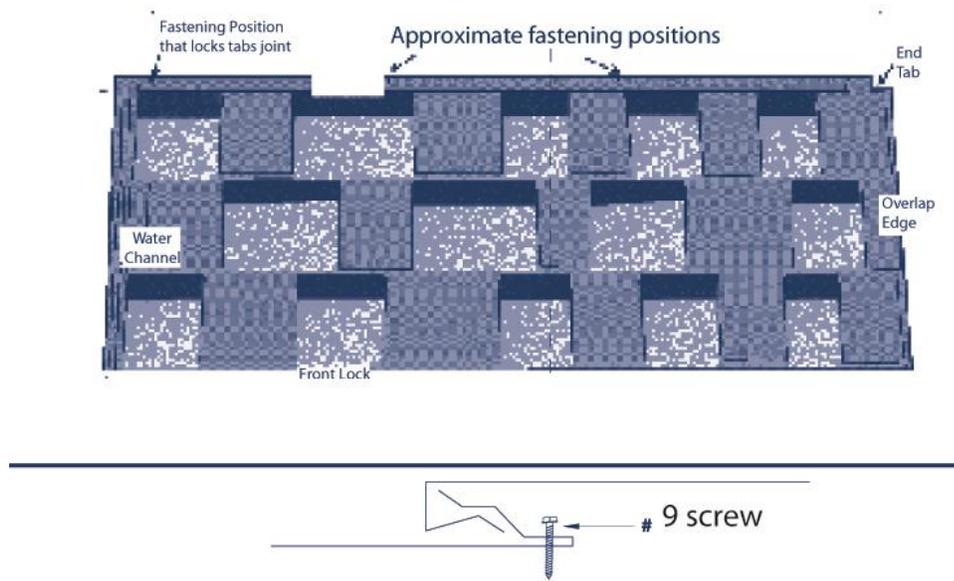


Figure 1. Fastener Locations

Note: Keep the manufacturer’s installation instructions available on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC, the IBC, and the Texas Revisions.