Product Evaluation

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-235

Effective Date: September 1, 2017
Re-evaluation Date: September 2021

Product Name: DECRA Shake XD lightweight steel shingles

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

General Description:
DECRA Shake XD panels measure 52-1/8" long by 14-1/8" wide. 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 Slope: Do not install the product on roof slopes less 3:12.

Roof Deck: Minimum nominal 15/32" thick plywood sheathing.

Roof Framing: Rafters or trusses must not exceed 24" on center.

Roof Deck Attachment: The roof deck must be secured to the roof framing to resist the required wind uplift design pressures.

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. The existing roof deck must be minimum 15/32" plywood. Note: Inspection of the existing roof deck must be made before installing the roof panels. The condition of the existing roof deck must be acceptable to receive the roof panels before the roof panel installation can proceed. A layer of underlayment over the existing roof covering is not required.

Installation:
Underlayment: A minimum of one layer of No. 30 (Type II) asphalt felt must be used. The underlayment used must comply with one or more of the following: ASTM D 226, ASTM D 4869, or ASTM D 1970. The felt must be installed with minimum 6" side laps and minimum 2" end laps. The underlayment must be applied with corrosion-resistant fasteners in accordance with manufacturer's installation instructions. Fasteners must be applied along the overlaps not farther apart than 36" on center.

Assembly No. 1
Design Pressure: -78.5 psf
The steel panels are installed with a 2-3/4" side lap and are interlocked in the vertical position with the course below (Figure 1). The shingles are attached to the plywood deck with minimum No. 8 by 1-1/2" long hex head steel screws spaced 10" on center for a total of five fasteners per shingle length.

Assembly No. 2
Design Pressure: -153.5 psf
The steel panels are installed with a 2-3/4" side lap and are interlocked in the vertical position with the course below (Figure 1). The shingles are attached to the plywood deck with minimum No. 8 by 1-1/2" long hex head steel screws spaced 5" on center for a total of ten fasteners per shingle length.

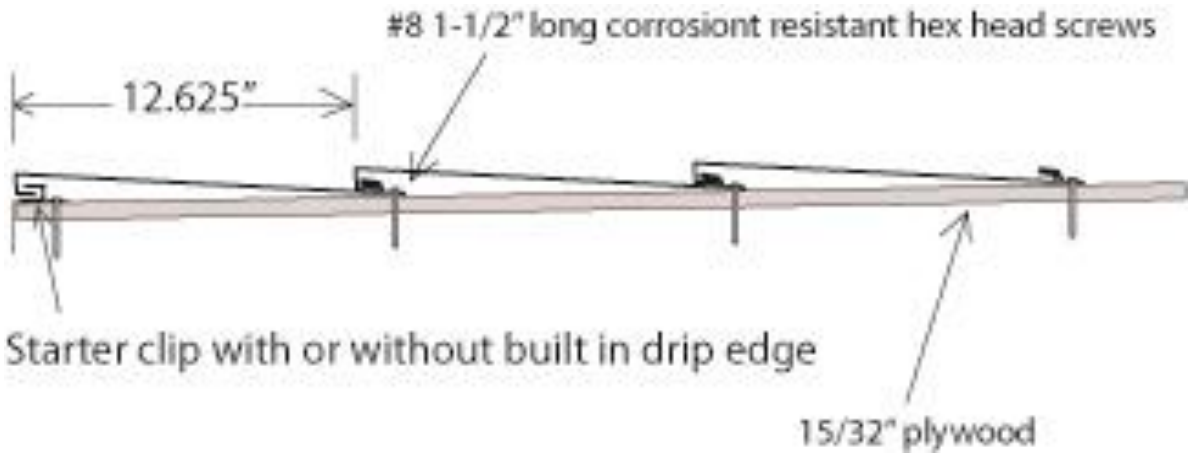

Figure 1: Fastener Locations

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.