

Product Evaluation

RC659 | 0621

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-659

Effective Date: June 1, 2021

Re-evaluation Date: June 2025

Product Name: Paragon Natural Mission/High Barrel Composite Roof Tiles Installed over a Plywood Deck

Manufacturer: Paragon Roof Systems
13903 Huffmeister Road
Cypress, TX 77429
(281) 747-9518

General Description:

The Natural Mission/High Barrel Composite Roof tile is a non-structural resin-based composite roof tile. The tiles have an average thickness of 0.28". The finished tile is 17" long and 13" wide. The tiles are suitable for installation with an exposure of 13". The finished eave starters are 11-3/4" long and 3" wide.

Limitations:

Design Wind Pressure: Design wind pressure limitations are specified in Table 1.

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

Roof Deck Attachment: The roof deck must be attached to roof framing to resist the required wind uplift pressured of either the IRC or the IBC.

Limitations (continued):

Roof Framing Spacing: A maximum of 24" on center.

Roof Slope: The roofing tiles are for application to roof decks with slopes of 4:12 and greater.

Installation Over an Existing Roof Covering: Not permitted

Table 1. Natural Mission/High Barrel Composite Roofing Tiles

Design wind pressure
-108.5 psf

Installation over Existing Roof Covering: Not permitted.

Installation:

Underlayment: A minimum of one layer of No. 30 (Type II) asphalt felt or equivalent must be used. The underlayment used must comply with one or more of the following standards: ASTM D226; ASTM D4869; or ASTM D1970. The underlayment must be installed with 6" side laps and 3" end laps. The underlayment must be applied with corrosion resistant fasteners in accordance with the manufacturer's installation instructions, the IRC, or the IBC.

Metal Drip Edge and Flashing: A metal drip edge must be provided as required by the IRC or IBC.

Exposure: The roofing tiles must have a maximum exposure of 12".

Attachment of Eave Starter to Wood Deck: Secure each eave starter to the roof deck with two (2) 0.120" x 1-3/4" stainless steel ring shank nails. The eave starter is installed flush with the drip edge in a bed of urethane sealant.

Attachment of Tiles to Wood Deck: Secure each tile to the roof deck with two (2) No. 10 x 1-1/2" stainless steel screws. One (1) fastener is located in each of the designated fastener locations on the tile.

Trims, Closures, and Accessories: Installation of components such as eave, rake trim, ridge trim, hip trim, and valley trim must be 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.