



Product Evaluation

RC470 | 1115

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-470

Effective Date: November 1, 2015

Re-evaluation Date: October 2019

Product Name: Scottish Clay Roofing Tiles

Manufacturer: Ladrillera Mecanizada S. A. de C. V.
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General Description:

The Scottish Clay roofing tiles are extruded tiles that are made from natural clay. The clay roofing tiles are available in a variety of colors. Two nail holes are located at the top of the tile.

Mechanical Attachment Only: The Scottish clay roofing tiles are to be installed mechanically with fasteners.

Roof Tile Dimensions: The dimensions of the Scottish Clay roofing tile that apply to this product evaluation report are specified in Table 1.

Table 1: Roof Tile Dimensions

Tile Designation	Width	Length	Thickness
Scottish Tile	7"	16"	5/8"

Limitations:

Roof Slope Limitations: Only install the roof tiles on buildings with a roof slope greater than or equal to 5:12, but not exceeding 12:12. Table 2 specifies the specific roof slope limitations.

Mean Roof Height Limitations: The mean roof height limitations must be as specified in Table 2. The roof tiles must not be installed on buildings with a mean roof height greater than 60 feet.

Table 2
Mean Roof Height Limitations²

Gable and Hip Roofs - Roof Slope: $\geq 5:12$ and $\leq 12:12$

Mean Roof Height Limitation					
Inland II		Inland I		Seaward	
Exposure B ¹	Exposure C ¹	Exposure B ¹	Exposure C ¹	Exposure B ¹	Exposure C ¹
60'	60'	60'	60'	60'	60'

Note: ¹ The Exposure category for the structure location must be as defined in either the IRC or the IBC.

² Table is based on an Importance factor of 1.0

Roof Framing and Roof Deck: The roof framing materials and connections must comply with the wind load provisions of either the IRC or the IBC. The roof framing member spacing must not exceed 24" on center.

Solidly sheath the roof deck with minimum 7/16" thick OSB or plywood (the manufacturer recommends a minimum 3/4" thick deck). Fasten the roof deck to the roof-framing members in accordance with the wind uplift requirements as stipulated by the IRC or the IBC.

If the existing roof framing consists of spaced boards, then a solid deck must be constructed using one of the following two options: (1) remove and replace the spaced boards with a solid OSB or plywood deck (7/16" minimum thickness); or (2) cover the spaced boards with an OSB or plywood deck (7/16" minimum thickness). Fasten the wood structural panel deck over the spaced boards in accordance with the wind uplift requirements as stipulated by the IRC or the IBC.

Metal drip edge: Fasten a metal drip edge to the roof deck with either 11-gauge or 12-gauge roofing nails spaced a maximum of 10" on center. Fasten the underlayment and the drip edge with the same fastener. Use the more stringent fastener pattern.

At the eaves, fasten the drip edge directly to the deck and apply the underlayment over the drip edge. At the gable ends, apply the drip over the underlayment.

Roof Underlayment:

Roof Slope $\geq 3:12$ and $< 4:12$: Use two layers of underlayment complying with ASTM D 226, Type II (No. 30 asphalt felt) or equivalent. Install the underlayment as specified in either the 2006 IRC (Section R905.3.3.1) or the 2006 IBC (Section 1507.3.3.1) and the manufacturer's installation instructions.

Roof Slope $\geq 4:12$: Use one layer of underlayment complying with ASTM D 226, Type II (No. 30 asphalt felt) or equivalent. Lap the underlayment a minimum of 2" at the head laps and a minimum of 6" at the side laps. Install the underlayment as specified in either the 2006 IRC (Section R905.3.3.2) or the 2006 IBC (Section 1507.3.3.2) and the manufacturer's installation instructions.

Battens (Optional): The roofing tiles may be installed over battens. Install the battens over the underlayment. The battens must, at a minimum, consist of nominal 1x2 Southern Yellow Pine wood members. Fasten the battens to the roof deck with minimum No. 8 x 2-1/2" corrosion resistant screws. The fasteners must be located at each end and a maximum of 18" on center. Use fasteners long enough to penetrate a minimum of 3/4" into (or through) the roof deck. Batten ends must be separated a minimum of 1-1/2" every 4'.

Roof Tile Installation Instructions

General:

- The roofing tiles and the underlayment system must be clean and dry at the time of application.
- Secure the Scottish clay roofing tiles to the roof deck. If battens are used, then the fasteners must penetrate through the battens and into the roof deck.
- Install the roofing tiles in accordance with this product evaluation report and the manufacturer's installation instructions.

Roof Tile Fasteners: Mechanically fasten the roofing tiles to the roof deck. At a minimum, use No. 8 x 2-1/2" Philips bugle head corrosion resistant screws (the manufacturer recommends stainless steel screws). Fasteners must be of sufficient length to penetrate at least 3/4" into (or through) the roof deck.

Application: Lay out the roof tiles from the right to the left, starting at the right rake/hip edge. Install the roof tiles allowing a 7" x 7" exposed area following the instructions of the TRI/WSRCA Installation Manual for double lap tiles (non-interlocking).

Rake Tiles, Hip Tiles, and Ridge Tiles: Refer to the roofing tile manufacturer's installation instructions for the installation of the rake, hip, and ridge tiles.

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