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CROWN ROOF TILES, LLC 6018 SW Hwy 72 Arcadia, Florida 34266 (805) 405-1569 www.CrownRoofTiles.com

# CONCRETE ROOF TILES: SANIBEL, TUSCANY, AND WINDSOR FLAT PROFILES

**CSI Section:** 

07 32 16 Concrete Roof Tiles

## 1.0 RECOGNITION

Crown Roof Tiles, LLC's Concrete Roof Tiles recognized in this report have been evaluated for use as concrete roof tiles. The weather resistance, wind uplift resistance, and fire classification properties of the roof tiles comply with the intent of the provisions of the following codes and regulations:

- 2021, 2018, and 2015 International Building Code<sup>®</sup> (IBC)
- 2021, 2018, and 2015 International Residential Code<sup>®</sup> (IRC)
- 2020 Florida Building Code, Building (FBC, Building)
  Supplement attached
- 2020 Florida Building Code, Residential (FBC, Residential) – Supplement attached

## 2.0 LIMITATIONS

Use of the Crown Roof Tiles, LLC's Concrete Roof Tiles recognized in this report is subject to the following limitations:

- **2.1** The roof tiles shall be manufactured, identified, and installed in accordance with this report and the applicable code. In the event of a conflict, this report governs.
- **2.2** Crown Roof Tiles, LLC's Concrete Roof Tile "shall be installed on roof slopes of  $2\frac{1}{2}$  units vertical in 12 units horizontal (21-percent slope) or greater." IBC Section 1507.3.2.
- **2.3** The supporting structure shall be designed to support the loads and is beyond the scope of this report.
- **2.4** The Crown Roof Tiles, LLC's Concrete Roof Tiles recognized in this report are manufactured in Arcadia, Florida.

#### 3.0 PRODUCT USE

**3.1 General:** Crown Roof Tiles, LLC's Concrete Roof Tiles are recognized for use as a roof covering in accordance with IBC Section 1503 or IRC Section 903, as applicable.

#### 3.2 Installation:

- **3.2.1 Installation in Accordance with the 2021 or 2018 IBC or IRC**: Crown Roof Tiles, LLC's Concrete Roof Tiles shall be installed and attached in accordance with IBC Section 1507.3 or IRC Section R905.3 as applicable. Underlayment shall conform to 2021 or 2018 IBC Section 1507.1.1 or 2018 IRC Section R905.1.1.
- **3.2.2** Installation in Accordance with the 2015 IBC or IRC: Crown Roof Tiles, LLC's Concrete Roof Tiles shall be fastened in accordance with the code specific requirements in Table 1 of this report using The Concrete and Clay Roof Tile Installation Manual for Moderate Climate Regions, dated July 2015, published by the Tile Roofing Institute and the Western States Roofing Contractors Association. The July 2015 TRI manual is associated with.

TABLE 1 – ATTACHMENT DESIGN

Applicable Code	Criteria for Applicability	Design Information Location
2015 BC	Ultimate Design Wind Speeds $(V_{ult}) \le 130$ MPH and Mean Roof Height $\le$ 60 feet	Roof Tile Installation Manual & Table 1507.3.7 of the applicable IBC
2015 IRC	Mean Roof Height ≤ 40 feet	Roof Tile Installation Manual & Section R905.3.7

For **SI:** 1 foot = 305 mm, 1 mph = 1.6 m/s

**3.3 Anchoring:** Crown Roof Tiles, LLC's Concrete Roof tiles may be anchored using mortar in accordance with the applicable building code and, where permitted, the TRI Manual or adhesively attached in accordance with the adhesive manufacturer's research report issued by an approved evaluation service agency.

## 4.0 PRODUCT DESCRIPTION

**4.1 General:** Crown Roof Tiles, LLC's Concrete Roof Tiles comply with ASTM C1492 as required by Section 1507.3.5 of the IBC and Section R905.3.5 of the IRC.



The product described in this Uniform Evaluation Service (UES) Report has been evaluated as an alternative material, design or method of construction in order to satisfy and comply with the intent of the provision of the code, as noted in this report, and for at least equivalence to that prescribed in the code in quality, strength, effectiveness, fire resistance, durability and safety, as applicable, in accordance with IBC Section 104.11. This document shall only be reproduced in its entirety.

VALUATION REPORT Number: 814

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## 4.2 Roofing Classification

Crown Concrete Roof tiles are recognized as a Class A roof covering when installed on non-combustible decks in accordance with Exception 2 in IBC Section 1505.2 and IRC Section 902.1. The roof tiles installed over combustible roofs are nonclassified and may be used as defined in Table 1505.1 of the IBC.

## 4.3 Profile Details

- **4.3.1 Sanibel:** Crown Roof Tiles, LLC's Sanibel Profile Concrete Roof Tiles are classified as Type I-a, high profile, and are available in various colors. Dimensions of Sanibel Concrete Roof Tiles are 17 inches long by 13¼ inches wide and 3.1 inches high (432 x 337 x 79 mm) with a nominal thickness of 0.56 inches (14 mm). The weight is 11 pounds per tile (5 kg) nominal, when installed with a 3 inch (76 mm) head lap, translates to 9.6 pounds per square foot (47 kg/m²).
- **4.3.2 Tuscany:** Crown Roof Tiles, LLC's Tuscany Concrete Roof Tiles are classified as Type I-b, low profile, and are available in various colors. Dimensions of the Tuscany Concrete Roof Tiles are 17 inches long by 13 inches wide by 2.3 inches high (390 x 260 x 58 mm) with a nominal thickness, of  $\frac{1}{2}$  inch (13 mm). The weight is 10.5 pounds per tile (4.8 kg) nominal, and when installed with a 3-inch (76 mm) head lap, translates to 8.9 pounds per square foot (44 kg/m2).
- **4.3.3 Windsor Flat:** Crown Roof Tiles, LLC's Windsor Flat Concrete Roof Tiles are classified as Type III-a, low profile, and are available in various colors. The dimensions of the Flat Concrete Roof Tiles are 17 inches long by 13 inches wide (390 x 260 mm) with a nominal thickness of <sup>19</sup>/<sub>32</sub> inches (15 mm). The weight is 12.5 pounds per tile (5.7 kg) nominal, and when installed with a 3-inch (76 mm) head lap, translates to 10.6 pounds per square foot (52 kg/m²).
- **4.3.4 Trim:** The Trim tiles for the Sanibel, Tuscany, and Windsor concrete tiles include hip, end cap, ridge, rake, and starter.

#### 5.0 IDENTIFICATION

Shipping pallets are identified with the report holder's name (Crown Roof Tiles, LLC), manufacturing address, product name, installed weight, inspection agency, and evaluation report number (ER-814). The IAPMO Uniform Evaluation Service Mark of Conformity may also be used as shown below:



**IAPMO UES ER-814** 

#### 6.0 SUBSTANTIATING DATA

- **6.1** Data in accordance with ICC-ES AC180, dated February 2012 (editorially revised March 2018), manufacturer's descriptive literature, and installation instructions.
- **6.2** Test reports are from laboratories in compliance with ISO/IEC 17025.

#### 7.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research completed by IAPMO Uniform Evaluation Service on Crown Roof Tiles, LLC's Concrete Roof Tiles to assess conformance to the codes shown in Section 1.0 of this report and serves as documentation of the product certification. Products are manufactured at locations noted in Section 2.4 of this report under a quality control program with periodic inspection under the supervision of IAPMO UES.

For additional information about this evaluation report please visit www.uniform-es.org or email us at info@uniform-es.org

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# FLORIDA SUPPLEMENT

CROWN ROOF TILES, LLC 6018 SW Hwy 72 Arcadia, Florida 34266 (805) 405-1569 www.CrownRoofTiles.com

CONCRETE ROOF TILES: SANIBEL, TUSCANY, AND WINDSOR FLAT PROFILES

**CSI Section:** 

07 32 16 Concrete Roof Tiles

#### 1.0 RECOGNITION

Crown Roof Tiles, LLC's Concrete Roof Tiles and accessories evaluated in IAPMO UES ER-814 are a satisfactory alternative roof covering material in accordance with the following codes and regulations:

- 2020 Florida Building Code, Building (FBC, Building)
- 2020 Florida Building Code, Residential (FBC, Residential)

## 2.0 LIMITATIONS

Use of the Crown Roof Tiles, LLC's Concrete Roof Tiles recognized in ER-814 and this supplement is subject to the following limitations:

- **2.1** Verification shall be provided that a quality assurance agency audits the manufacturer's quality assurance program and audits the production quality of products, in accordance with Section (5)(d) of Florida Rule 61G20-3.008. The quality assurance agency shall be approved by the Commission (or the building official when the report holder does not possess an approval by the Commission).
- **2.2** Evaluation to the high-velocity hurricane zone provisions is beyond the scope of this report.
- **2.3** This supplement expires concurrently with ER-814.

#### 3.0 PRODUCT USE

The design requirements shall be determined in accordance with the FBC, Building or FBC, Residential, as applicable. Installation of the Crown Roof Tiles, LLC's concrete roof tiles shall be in accordance with ER-814 and FBC, Building, Section 1507.3 or FBC, Residential, Section R905.3, as applicable.

For additional information about this evaluation report please visit www.uniform-es.org or email us at info@uniform-es.org