DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 32 16 —Concrete Roof Tiles

REPORT HOLDER:
AUBURN TILE, INC.

EVALUATION SUBJECT:
AUBURN CONCRETE ROOFING TILES

1.0 EVALUATION SCOPE
1.1 Compliance with the following codes:
- 2015, 2012 and 2009 International Residential Code® (IRC)

Properties evaluated:
- Durability
- Fire classification
- Wind-uplift resistance

1.2 Evaluation to the following green code:
- 2016 California Green Building Standards Code (CALGreen), Title 24, Part 11

Attributes verified:
- See Section 3.1

2.0 USES
The Auburn extruded concrete roof tiles, when installed in accordance with this report, are Class A roof coverings in accordance with Section 15 05.2 of the IBC and Section R902.1 of the IRC.

3.0 DESCRIPTION
3.1 General:
The Auburn extruded concrete roofing tiles are available as regular-weight and lightweight tiles. The tiles are manufactured with portland cement, sand, coloring agents and admixtures. Accessory and trim tiles are available. Lightweight tiles are manufactured in a similar manner to the regular-weight tiles, except that lightweight aggregates are used. See Figure 1 for tile profile and other details.

The attributes of the roof tiles have been verified as conforming to the requirements of CALGreen Section A5.406.1.2 for reduced maintenance. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. The code may provide supplemental information as guidance.

3.2 Auburn Tile Types:
3.2.1 Regular Weight: The tiles are 15 inches (381 mm) long and have a 9 1/4-inch (235 mm) overall width. Longitudinal edges have interlocking ribs and grooves designed to restrict lateral movement and provide a series of weather checks. Tiles have a minimum thickness of 3/8 inch (9.5 mm) at longitudinal edges, with a maximum thickness of 1 inch (25.4 mm) at the central portion. Each tile has two 1/2-inch-deep (12.7 mm) projecting anchor lugs across the tile top to engage the wood battens. A single nail hole centered at the upper left edge is provided for attachment to the sheathing or battens. The installed dry weight is 9.7 pounds per square foot (47.36 kg/m²) when installation is with a 3-inch (76 mm) headlap.

3.2.2 Lightweight: The tiles have an installed dry weight of 7.8 pounds per square foot (28.1 kg/m²) when installed with a 3-inch (76 mm) headlap. The size and shape are the same as for the regular-weight tiles.

3.3 Underlayment:
Underlayment must comply with Section 1507.3.3 of the IBC or Section R905.3.3 of the IRC.

For roof slopes below 2 1/2:12 (21 percent slope), tiles are considered decorative only and must be applied over an approved roof covering, subject to the local building official’s approval.

4.0 INSTALLATION
4.1 General:
Auburn concrete roof tiles must be installed in accordance with IBC Section 1507.3 or IRC Section R905.3, as applicable, and the manufacturer’s installation manual. This report and the manufacturer’s instructions must be available at the jobsite at all times during installation.

Auburn concrete roof tiles may also be installed in accordance with the Concrete and Clay Roof Tile Installation Manual for Moderate Climate Regions, dated March 2010, published by the Tile Roofing Institute and Western States Roofing Contractors Association, in locations where the January mean temperature is greater than 25°F (–4°C) and where ice damming does not occur.

4.2 Roof Slope:
For roof slopes from 2 1/2:12 (21 percent slope) to 4:12 (33 percent slope), the roof deck must be covered with a minimum of two layers of underlayment complying with
IBC Section 1507.3.3 or IRC Section R905.3.3, as applicable.

For roof slopes greater than 4:12 (33 percent slope), the roof deck must be covered with a minimum of one layer of underlayment complying with IBC Section 1507.3.3 or IRC Section R905.3.3, as applicable.

4.3 Wind Resistance:

4.3.1 2015 IBC, 2015 IRC and 2012 IBC: When installed in accordance with this report, the Auburn concrete roof tiles are limited to areas subject to a maximum ultimate design wind speed ($V_{ult}$) of 130 mph (209 km/h) in accordance with 2015 and 2012 IBC Figure 1609.3 and 2015 IRC Figure 301.2(4), on structures having a maximum mean roof height of 60 feet (18.3 m) or less under the IBC or a maximum mean roof height of 40 feet (12.2 m) or less under the IRC.

4.3.2 2009 IBC: When installed in accordance with this report, the Auburn concrete roof tiles are limited to areas subject to a maximum basic wind speed of 100 mph (161 km/h) in accordance with 2009 IBC Figure 1609, on structures having a maximum mean roof height of 60 feet (18.3 m).

4.3.3 2012 and 2009 IRC: When installed in accordance with this report, the Auburn concrete roof tiles are limited to areas subject to a maximum basic wind speed of 100 mph (161 km/h) in accordance with 2012 IRC Figure R301.2(4)A, or 2009 IRC Figure R301.2(4)A, as applicable, on structures having a maximum mean roof height of 40 feet (12.2 m).

4.4 Adhesive Set Systems:

The Auburn concrete roof tiles may be installed with a roof tile adhesive that is recognized in a current ICC-ES evaluation report for use in concrete roof tile applications. Installation of tiles using the tile adhesive must be in accordance with the adhesive manufacturer's ICC-ES evaluation report.

4.5 Fire Classification:

4.5.1 New Construction: When installed in accordance with this report, the Auburn Regular Weight and Lightweight concrete roof tiles are Class A roof coverings in accordance with IBC Section 1505.2 and IRC Section R902.1. When roof tiles are installed with a roof tile adhesive, installation must be in accordance with ESR-1709.

4.5.2 Reroofing Applications: The existing roof coverings must be removed and the new roof installed in accordance with the requirements of 2015 IBC Section 1511 [2012 and 2009 IBC Section 1510] or 2015 IRC Section R908 [2012 and 2009 IRC Section R907], as applicable. The roof classification is as noted in Section 4.5.1.

5.0 CONDITIONS OF USE

The Auburn Tile, Inc., concrete roofing tiles described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 The tiles must be manufactured and installed in accordance with this report, the applicable code and the manufacturer’s published instructions. If there is a conflict between the published instructions and this report, this report governs.

5.2 The roof framing and sheathing must be designed for the appropriate loads determined in accordance with the applicable code, subject to the approval of the code official.

5.3 The tiles are manufactured at the Auburn Tile, Inc., facility in Ontario, California, under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

Reports of tests in accordance with the Acceptance Criteria for Clay and Concrete Roof Tiles (AC180), dated February 2012 (editorially revised April 2015).

7.0 IDENTIFICATION

7.1 Each shipping crate notes the manufacturer’s name (Auburn Tile, Inc.) and address, product name, color, installed weight and evaluation report number (ESR-2567).

7.2 The report holder’s contact information is the following:

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