



EAGLE ROOFING PRODUCTS – CONCRETE ROOF TILES

CSI Section: 07 32 16 Concrete Roof Tiles

1.0 RECOGNITION

The Eagle Roofing Product’s Eagle and Eaglelite Interlocking Concrete Roofing Tiles recognized in this report have been evaluated for weather resistance, wind uplift resistance, and fire retardant classification and found to be in compliance with IBC Chapter 15 and IRC Chapter 9 for use as a component in a Class A, B or C roof covering. The following code editions are recognized:

- 2015, 2012, 2009, 2006 International Building Code® (IBC)
- 2015, 2012, 2009, 2006 International Residential Code® (IRC)
- 2013 California Building Code (CBC) and 2013 California Residential Code (CRC)–See attached Supplement
- 2014 Florida Building Code, Building (FBC-Building) and 2014 Florida Building Code, Residential (FBC, Residential)-See attached Supplement

2.0 LIMITATIONS

2.1 The roof tiles shall be manufactured, identified and installed in accordance with this report, the applicable code and the Roof Tile Installation Manual. In the event of a conflict this report governs.

2.2 Eagle Roofing Product’s “concrete roof tile shall be installed on roof slopes of 2½ units vertical in 12 units horizontal (21-percent slope) or greater.” (2015 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.

3.0 PRODUCT USE

3.1 General: Eagle Roofing Product’s Concrete Roof Tiles recognized in this report are identified in Tables 2A through 2D of this report. These tiles:

- Satisfy the requirements of ASTM C1492;
- Provide a Class A Fire Retardant Classification when tested on combustible decks in accordance with ASTM E108.

3.2 Anchoring: Eagle Roofing Product’s Concrete Roof Tiles shall be anchored by mortar or adhesively attached in accordance with each respective adhesive manufacturer’s approved research report.

3.3 Wind uplift resistance is addressed in Section 4.0 of this report.

4.0 PRODUCT DESCRIPTION

4.1 General: Eagle Roofing Product’s Concrete Roof Tiles installation shall be in accordance with the applicable code, the Concrete and Clay Roof Tile Installation Manual for Moderate Climate Regions, dated August 2015, published by the Tile Roofing Institute and the Western States Roofing Contractors Association, and this report. In the event of a conflict, provisions of this report govern. The TRI manual is available for download attached to ER-2015 from the UES website at www.uniform-es.org. The Eagle roof tiles and Eaglelite roof tiles are similar in production except that the Eaglelite tiles are produced with lightweight aggregates in lieu of sand. Figure 1 of this report includes typical profiles of the Eagle roof tiles.

4.2 Attachment: Tile shall be attached to the roof structure based the applicable code as noted in Table 1 of this report:

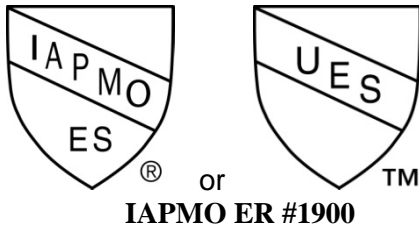
Table 1 Attachment Design		
Applicable Code	Criteria for Applicability	Design Information Location
2015 or 2012 IBC	Ultimate Design Wind Speeds (V_{ult}) ≤ 130 MPH and Mean Roof Height ≤ 60 feet	Roof Tile Installation Manual & Table 1507.3.7 of the applicable IBC
2009 or 2006 IBC	Basic Wind Speed (3 sec gust) ≤ 100 mph and Mean Roof Height ≤ 60 feet	
2015, 2012, 2009 or 2006 IRC	Mean Roof Height ≤ 40 feet	Roof Tile Installation Manual & Section R905.3.7

4.3 Fire Classification: Eagle Roofing Product’s Concrete Roof Tiles, installed in accordance with this evaluation report, are Class A roof coverings in accordance with Section 1505.2 of the IBC and Section R902.1 of the IRC, as applicable. Roof classifications for adhesively attached systems shall be in accordance with the adhesive manufacturer’s approved research report.

5.0 IDENTIFICATION

Shipping pallets are identified with the report holder’s name (Eagle Roofing Products), manufacturing address, product name, installed weight, shift and date of production, the UES Mark of conformity and evaluation report number (ER-1900). The tiles produced in the Sumterville, Florida manufacturing facility are additionally identified with “Florida” imprinted on each tile. Either UES Mark of Conformity may be used as shown below:





8.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research carried out by IAPMO Uniform Evaluation Service on Eagle Roofing Product’s Concrete Roof Tiles to assess its conformance to the codes and standards shown in Section 1.0 of this report and documents the product’s certification.

6.0 SUBSTANTIATING DATA

Data in accordance with ICC-ES AC180, dated February 2012 (editorially revised April 2015), manufacturer’s descriptive literature and installation instructions. Test results are from laboratories in compliance with ISO/IEC 17025.

Eagle Roofing Product’s Concrete Roof Tiles are manufactured in the facilities specified in Tables 2A through 2D of this report, under a quality control program.

7.0 CONTACT INFORMATION

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



Table 2A - Tiles Manufactured at Stockton, California

Tile	Installed Dry Weight ¹ (psf)	Dimensions ² (inch)	Tile Factor		Tile Type
		Length X Width	TF (ft ³)	Ratio ¹	
Capistrano	9.0	17 X 12 ³ / ₈	1.4625	1.039	Type I – High Profile
Malibu	9.0	17 X 12 ³ / ₈	1.486	1.056	Type II – Medium Profile
Bel Air	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Ponderosa	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Golden Eagle	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Double Eagle Ponderosa	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Estate	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Double Eagle Bel Air	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Eaglelite Capistrano	5.7	17 X 12 ³ / ₈	1.4625	1.039	Type I – High Profile
Eaglelite Malibu	5.5	17 X 12 ³ / ₈	1.486	1.056	Type II – Medium Profile
Eaglelite Ponderosa	7.2	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Eaglelite Bel Air	7.2	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Eaglelite Double Eagle Ponderosa	7.2	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile

For SI: 1 inch = 25.4 mm, 1 psf = 4.88 kg/m²

Table 2B - Tiles Manufactured at Rialto, California

Tile	Installed Dry Weight ¹ (psf)	Dimensions ² (inch)	Tile Factor		Tile Type
		Length X Width	TF (ft ³)	Ratio ¹	
Capistrano	9.0	17 X 12 ³ / ₈	1.4625	1.039	Type I – High Profile
Malibu	9.0	17 X 12 ³ / ₈	1.486	1.056	Type II – Medium Profile
Bel Air	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Estate	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Double Eagle Bel Air	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Ponderosa	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Double Eagle Ponderosa	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Golden Eagle	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Eaglelite Capistrano	5.7	17 X 12 ³ / ₈	1.4625	1.039	Type I – High Profile
Eaglelite Malibu	5.5	17 X 12 ³ / ₈	1.486	1.056	Type II – Medium Profile
Eaglelite Ponderosa	7.2	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile

For SI: 1 inch = 25.4 mm, 1 psf = 4.88 kg/m²



Table 2C - Tiles Manufactured at Phoenix, Arizona					
Tile	Installed Dry Weight ¹ (psf)	Dimensions ² (inch)	Tile Factor		Tile Type
		Length X Width	TF (ft ³)	Ratio ¹	
Capistrano	9.0	17 X 12 ³ / ₈	1.4625	1.039	Type I – High Profile
Malibu	9.0	17 X 12 ³ / ₈	1.486	1.056	Type II – Medium Profile
Bel Air	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Estate	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Double Eagle Bel Air	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Ponderosa	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Double Eagle Ponderosa	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Golden Eagle	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile

For SI: 1 inch = 25.4 mm, 1 psf = 4.88 kg/m²

Table 2D - Tiles Manufactured at Sumterville, Florida					
Tile	Installed Dry Weight ¹ (psf)	Dimensions ² (inch)	Tile Factor		Tile Type
		Length X Width	TF (ft ³)	Ratio ¹	
Capistrano	8.8	17 X 12 ³ / ₈	1.4625	1.039	Type I – High Profile
Malibu	7.95	17 X 12 ³ / ₈	1.486	1.056	Type II – Medium Profile
Bel Air	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Estate	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Double Eagle Bel Air	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Ponderosa	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Double Eagle Ponderosa	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile
Golden Eagle	9.7	17 X 12 ³ / ₈	1.4683	1.044	Type III – Low Profile

For SI: 1 inch = 25.4 mm, 1 psf = 4.88 kg/m²

Notes:

- Used on a 3-inch headlap
- Nominal Dimension

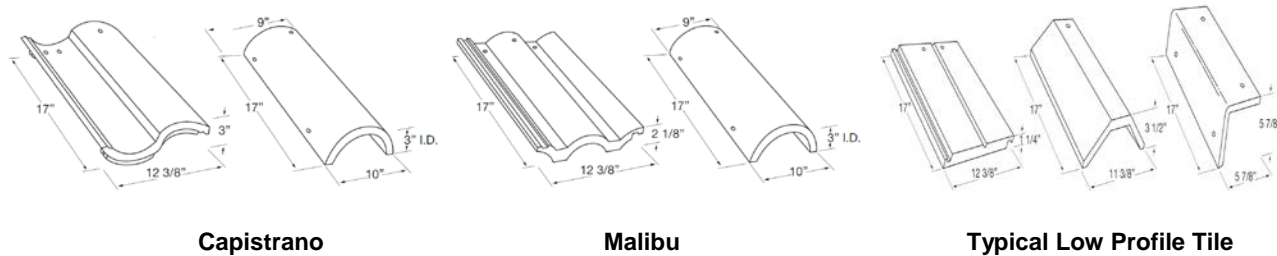


FIGURE 1

CONCRETE TILE AND TRIM PROFILES



CALIFORNIA SUPPLEMENT

EAGLE ROOFING PRODUCTS – CONCRETE ROOF TILES

Eagle Roofing Products
3546 N. Riverside Avenue
Rialto, CA 92377

CSI Section: 07 32 16 Concrete Roof Tiles

1.0 RECOGNITION

The Eagle and Eaglelite Interlocking Concrete Roof Tiles evaluated in IAPMO UES ER-1900 are satisfactory alternatives to the following codes and regulations:

- 2016 California Building Code (CBC)
- 2016 California Residential Code (CRC)

2.0 PRODUCT USE

2.1 GENERAL

The Eagle and Eaglelite Interlocking Concrete Roof Tiles may be used as a Class A, B, or C roof covering systems complying with Sections 1505.1.1 of the CBC or R902.1.1 of the CRC; Sections 1505.1.2 of the CBC or R902.1.2 of the CRC; or Sections 1505.1.3 of the CBC or R902.1.3 of the CRC, respectively.

The design and installation of the Eagle and Eaglelite Interlocking Concrete Roof Tiles shall be in accordance with Sections 1507.3.10 and 1513 of the CBC or Section 905.3 of the CRC, as applicable, and ER-1900 with respect to the 2015 IBC or 2015 IRC.

Eagle and Eaglelite Interlocking Concrete Roof Tiles may be used in “new buildings located in any Fire Hazard Severity Zone or any Wildland-Urban Interface Fire Area designated by the enforcing agency constructed after the application date shall comply with the provisions” in accordance with Sections 701A.3 and 705A of the CBC or Sections R902.1.4, R337.1.3.1 and R337.5 of the CRC, as applicable, and with the 2015 IBC as presented in ER-1900.

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



FLORIDA SUPPLEMENT

EAGLE ROOFING PRODUCTS– CONCRETE ROOF TILES

Eagle Roofing Products
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Design wind loads shall be in accordance with Section 1609.5 of the FBC, Building or Section R301.2.1 of the FBC, Residential, as applicable.

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

CSI Section: 07 32 16 Concrete Roof Tiles

1.0 RECOGNITION

The Eagle and Eaglelite Interlocking Concrete Roof Tiles evaluated in IAPMO UES ER-1900 are satisfactory alternatives to the following codes and regulations:

- 2014 Florida Building Code, Building (FBC, Building)
- 2014 Florida Building Code, Residential (FBC, Residential)

2.0 LIMITATIONS

2.1 Verification shall be provided that a quality assurance agency audits the manufacturers 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 in Sections 1518, 1620 and 1626 of the FBC, Building and Chapter 44 of the FBC, Residential is beyond the scope of this report.

3.0 PRODUCT USE

The design and installation of the Eagle and Eaglelite Interlocking Concrete Roofing Tiles shall be in accordance with the 2012 International Building Code and the 2012 International Residential Code as noted in ER-1900. From FBC-Building Section 1507.3 and FBC-Residential Section R905.3 we see that the installation of the Eagle Roofing concrete roof tiles “shall be in accordance with the requirements of the FRSA/TRI *Florida High Wind Concrete and Clay Roof Tile Installation Manual*, Fifth Edition where the V_{asd} is determined in accordance with” FBC, Building Section 1609.3.1, FBC, Residential Section R301.2.1.3, or the recommendations of RAS 118, 119 or 120.

Load combinations shall be in accordance with Sections 1605.2 or 1605.3 of the FBC, Building, as applicable.