



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

**MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION**

11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

Clay Tile Ventures, Inc.
d/b/a Redland Clay Tile
9155 Brown Deer Rd., Suite 5
San Diego, CA 92121

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER -Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Mission 2000, Baja Mission, and Junipero Clay Roof Tiles

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This renews and revises NOA No. 14-0421.06 consists of pages 1 through 7.
The submitted documentation was reviewed by Alex Tigera.



NOA No.: 14-1105.07
Expiration Date: 05/14/19
Approval Date: 05/21/15
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ROOFING ASSEMBLY APPROVAL

Category: Roofing
Sub-Category: Roofing Tiles
Material: Clay
Deck Type: Wood

1. SCOPE

This approves a roofing system using **Mission 2000, Baja Mission, and Junipero Clay Roof Tiles**, as manufactured by **California Clay Tile De Mexico SA De C.V.**, and distributed by **Clay Tile Ventures, Inc. d/b/a Redland Clay Tile**, as described in Section 2 of this Notice of Acceptance. For locations where the pressure requirements, as determined by applicable Building Code does not exceed the design pressure values obtained by calculations in compliance with RAS 127 using the values listed in section 4 herein. The attachment calculations shall be done as a moment based system.

2. PRODUCT DESCRIPTION

| <u>Manufactured by Applicant</u> | <u>Dimensions</u> | <u>Test Specifications</u> | <u>Product Description</u> |
|----------------------------------|---|----------------------------------|---|
| Mission 2000 Barrel | Length = 20" Width = 8.5" Height = 3" Thickness = ½" | ASTM C 1167 Type I Grade 2 | High profile, two-piece, clay roof tile. For mortar set or adhesive set applications. |
| Baja Mission | Length = 17.5" Width = 6.75" Height = 2.9" Thickness = 0.5" | ASTM C 1167 Type I Grade 2 | High profile, two-piece, clay roof tile. For mortar set or adhesive set applications. |
| Junipero | Length = 16.75" Width = 7.25" Height = 3.3" Thickness = 0.5" | ASTM C 1167 Type I Grade 2 | High profile, two-piece, clay roof tile. For mortar set or adhesive set applications. |
| Trim Pieces | Length = varies Width = varies Varying thickness | | Accessory trim, clay roof pieces for use at hips, rakes, ridges and valley terminations. Manufactured for each tile profile. |

2.1 PRODUCTS MANUFACTURED BY OTHERS

| <u>Product Name</u> | <u>Product Description</u> | <u>Manufacturer (With Current NOA)</u> |
|---|---|--|
| 3M™ 2- Component Foam Roof Tile Adhesive AH-160 | Two component polyurethane foam adhesive. | 3M Company |
| Bonsal Roof Tile Mortar | Premixed, pre-bagged roof tile mortar. | Bonsal American |



2.2 MANUFACTURING LOCATION

1. Tecate, Mexico (Plant Tecate 2)

2.3 SUBMITTED EVIDENCE:

| <u>Test Agency</u> | <u>Test Identifier</u> | <u>Test Name/Report</u> | <u>Date</u> |
|------------------------------------|------------------------|--|-------------|
| PRI Asphalt Technology, Inc. | SPC-003-02-01 | ASTM C 1167 | 12/30/03 |
| | SPC-003-02-02 | TAS 101 | 11/14/03 |
| | SPC-003-02-04 | TAS 101 | 01/06/04 |
| American Test Lab of South Florida | RT0402.04-14 | ASTM C 1167 | 04/09/14 |
| | RT0825.01-14 | Aerodynamic Multiplier / Restoring Moments | 08/26/14 |
| | RT0825.02-14 | Aerodynamic Multiplier / Restoring Moments | 08/26/14 |
| | RT1010.02-14 | ASTM C 1167 | 05/19/15 |
| | RT0102.01-15 | ASTM C 1167 | 03/27/15 |
| | RT0402.01-15 | ASTM C 1167 | 04/09/15 |
| | RT0409.01-15 | TAS 101 | 04/14/15 |

3. LIMITATIONS

- 3.1 Fire classification is not part of this acceptance.
- 3.2 For mortar or adhesive set tile applications, a static field uplift test shall be performed in accordance with TAS 106.
- 3.3 Applicant shall retain the services of a Miami-Dade County Certified Laboratory to perform quarterly test in accordance with TAS 112, appendix 'A'. Such testing shall be submitted to the Miami-Dade Product Control office for review.
- 3.4 Minimum underlayment shall be in compliance with the applicable Roofing Applications Standards listed section 4.1 herein.
- 3.5 30/90 hot mopped underlayment applications may be installed perpendicular to the roof slope unless stated otherwise by the underlayment material manufacturers published literature.
- 3.6 This acceptance is for wood deck applications. Minimum deck requirements shall be in compliance with applicable building code.
- 3.7 All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.



4. INSTALLATION

4.1 Mission 2000 & Baja Mission Clay Roof Tiles and its components shall be installed in strict compliance with Roofing Application Standard RAS 120.

4.2 Data For Attachment Calculations

Table 1: Average Weight (W) and Dimensions (l x w)

| Tile Profile | Weight-W (lbf) | Length-l (ft) | Width-w (ft) |
|--------------|----------------|---------------|--------------|
| Mission 2000 | 6.75 | 1.67 | 0.71 |
| Baja Mission | 4.7 | 1.46 | 0.56 |
| Junipero | 4.7 | 1.39 | 0.604 |

Table 2: Aerodynamic Multipliers - λ (ft³)

| Tile Profile | λ (ft ³) Batten Application | λ (ft ³) Direct Deck Application |
|--------------|--|---|
| Mission 2000 | N/A | 0.31 |
| Baja Mission | N/A | 0.31 |
| Junipero | | 0.16 |

Table 3: Restoring Moments due to Gravity - M_g (ft-lbf)

| Tile Profile | 2:12 | 3:12 | 4:12 | 5:12 | 6:12 | 7:12 or greater |
|--------------|-------------|-------------|-------------|-------------|-------------|-----------------|
| | Direct Deck | Direct Deck | Direct Deck | Direct Deck | Direct Deck | Direct Deck |
| Mission 2000 | 5.67 | 5.58 | 5.46 | 5.31 | 5.15 | 4.97 |
| Baja Mission | 3.53 | 3.47 | 3.39 | 3.30 | 3.20 | 3.09 |
| Junipero | 3.21 | 3.15 | 3.08 | 3.00 | 2.91 | 2.81 |

**Table 6: Attachment Resistance Expressed as a Moment - M_f (ft-lbf)
for Single Patty Adhesive Set Systems**

| Tile Profile | Tile Application | Minimum Attachment Resistance |
|-----------------------------|--|-------------------------------|
| Mission 2000 & Baja Mission | 3M™ 2-Component Foam Roof Tile Adhesive AH-160 | 179.83 ¹ |
| Junipero | 3M™ 2-Component Foam Roof Tile Adhesive AH-160 | 99.19 ² |

1 Place (1) one 2" wide x 10" long, 40 gram, paddy per pan tile, and (1) one 1" wide x 10" long, 20 gram, paddy on each side of the cap tile of 3M™ 2-Component Foam Roof Tile Adhesive AH-160.

2 Place (1) one 4" wide x 10" long, 44.5 gram, paddy per pan tile, and (1) one 2" wide x 10" long, 22.3 gram, paddy on each side of the cap tile of 3M™ 2-Component Foam Roof Tile Adhesive AH-160.

| Table 7: Attachment Resistance Expressed as a Moment - M_f (ft-lbf) for Mortar Set Systems | | |
|---|------------------|-------------------------------|
| Tile Profile | Tile Application | Minimum Attachment Resistance |
| Mission 2000 & Baja Mission | Mortar Set | 148.78 ² |
| 3 Place one full 10" trowel per each pan tile, and ½ of one full 10" trowel on each side of the cap tiles of Bonsal Roof Tile Mortar. | | |

5. LABELING

All tiles shall bear the imprint or identifiable marking of the manufacturer's name or logo as seen below or following statement: "Miami-Dade County Product Control Approved".

CALIFORNIA CLAY TILE

(LOCATED ON TOP LEFT OF TILE)

REDLAND

(LOCATED ON TOP RIGHT OF TILE)

MEXICO

(LOCATED UNDERNEATH TILE)

LABELS FOR MISSION 2000 & BAJA MISSION CLAY ROOF TILES

RCT JUNIPERO

(LOCATED ON LEFT EDGE, AT HEAD OF TILE)

MEXICO

(LOCATED RIGHT EDGE, AT HEAD OF TILE)

LABELS FOR JUNIPERO CLAY ROOF TILES

6. BUILDING PERMIT REQUIREMENTS:

6.1 Application for building permit shall be accompanied by copies of the following:

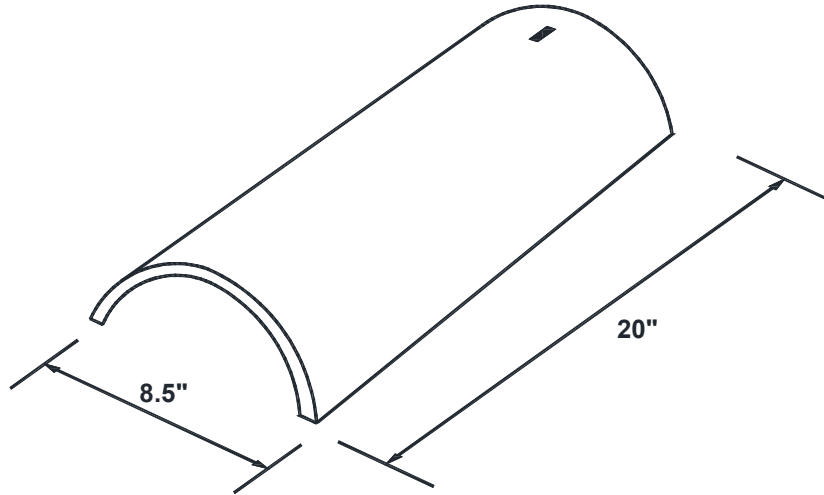
6.1.1 This Notice of Acceptance.

6.1.2 Any other documents required by Building Official or Applicable building code in order to properly evaluate the installation of this system.

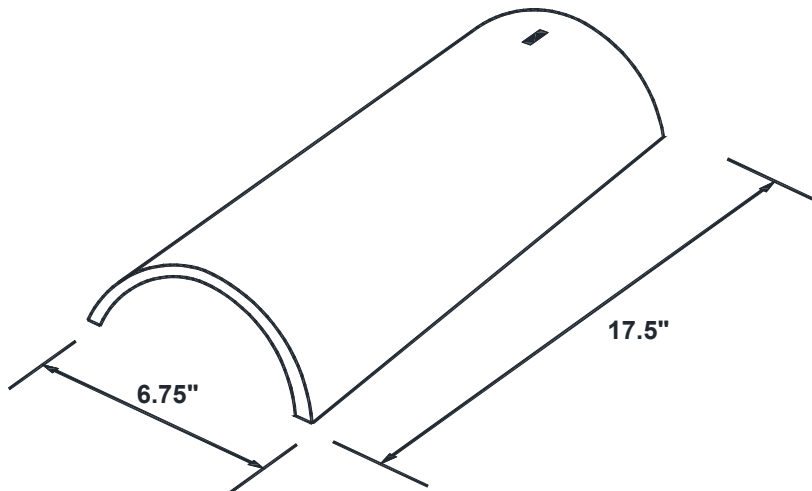


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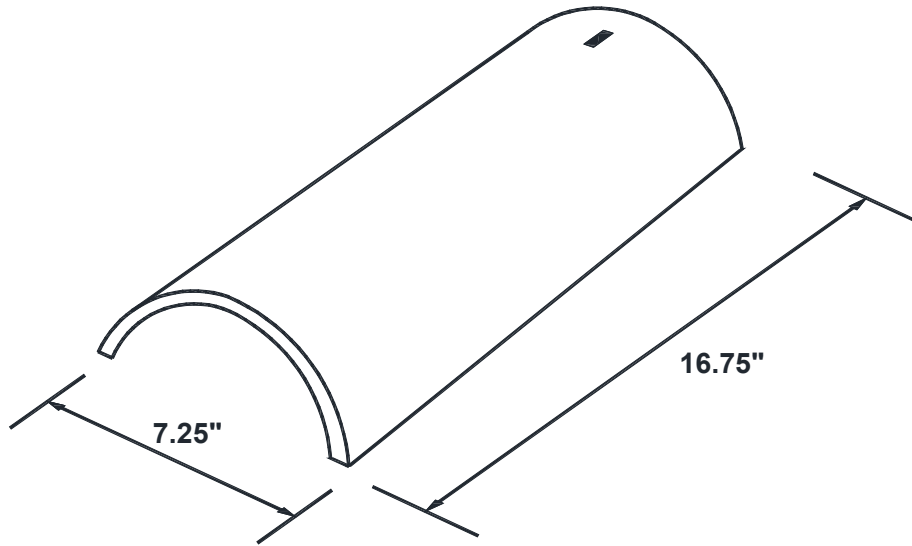
PROFILE DRAWINGS



MISSION 2000 CLAY ROOF TILE



BAJA MISSION CLAY ROOF TILE



JUNIPERO CLAY ROOF TILE

END OF THIS ACCEPTANCE