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

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/pera

NOTICE OF ACCEPTANCE (NOA)

Crown Building Products of Florida LLC
6018 HWY 72
Arcadia, FL. 34266

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: **Tuscany Roof Tile**

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 NOA revises NOA 20-1105.07 and consists of pages 1 through 8.
The submitted documentation was reviewed by Alex Tigera.

ROOFING ASSEMBLY APPROVAL

Category: Roofing
Sub Category: Roofing Tiles
Material: Concrete

1. SCOPE

This approves a roofing system using **Tuscany Roof Tile** manufactured by **Crown Building Products of Florida LLC** in **Arcadia, Fl.** 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

Manufactured by Applicant	Dimensions	Test Specifications	Product Description
Crown Tuscany Roof Tile	L = 17.0" W = 13.0" 0.50" thick nominal 2.3" high	TAS 112 Type – 1b Class III	Low profile interlocking, concrete roof tile. For direct deck, batten nail-on, mortar or adhesive set applications
Trim Pieces	Length: varies Width: varies varying thickness	TAS 112	Accessory trim, concrete roof pieces for use at hips, rakes, ridges and valley terminations manufactured for each tile profile.

2.1 PRODUCTS MANUFACTURED BY OTHERS

Product Name	Product Description	Manufacturer (With Current NOA)
Polyset AH-160	Two component polyurethane foam adhesive.	ICP Adhesives and Sealants, Inc.
TILE BOND™ Roof Tile Adhesive	Single component polyurethane foam roof tile adhesive.	DuPont de Nemours, Inc.
Touch 'N Seal StormBond® One Component Polyurethane Roof Tile Adhesive	One component polyurethane foam adhesive.	DAP Foam, Inc.
"Tile Tite" Roof Tile Mortar	Premixed, pre-bagged roof tile mortar.	Bermuda Roof Co. Inc.
Bonsal Roof Tile Mortar	Premixed, pre-bagged roof tile mortar.	Bonsal American, Inc.
"Quikrete" Roof Tile Mortar, FL-15	Premixed, pre-bagged gray roof tile mortar.	The Quikrete Companies, Inc.

2.2 MANUFACTURING LOCATION

2.2.1. Arcadia, Fl.

2.3 SUBMITTED EVIDENCE:

Test Agency	Test Identifier	Test Name/Report	Date
Redland Technologies	7161-03 Appendix III	PA 102 & PA 102(A)	Dec. 1991
	Letter	PA 108 (Nail-On)	Aug. 1994
	P0631.01	PA 108 (Mortar Set)	July 1994
	P0402	Withdrawal Resistance Testing of screw vs. smooth shank nails	Sept. 1993
The Center for Applied Engineering, Inc.	94-083	PA 101 (Adhesive Set)	April 1994
	94-084	PA 101 (Mortar Set)	May 1994
	25-7094-(1, 4 & 7)	PA 102	Oct. 1994
	25-7183-(1,2 & 7)	PA 102	Nov. 1994
	25-7214-(2 & 6)	PA 102	Feb. 1995
	25-7487-(1)	PA 102	March, 1995
	25-7496 (2 & 3)	PA 102	Sep. 1996
	25-7804-5		
Celotex Corporation	528454-2-1	PA 101	Sept. 1998
Testing Services	520109-2	PA 101	December 1998
Walker Engineering, Inc.	Calculations	25-7094	February 1996
	Calculations	25-7496	April 1996
	Calculations	25-7584	December 1996
	Calculations	25-7804b-8	December 1996
	Calculations	25-7804-4 & 5	December 1996
	Calculations	25-7848-6	December 1996
	Calculations	25-7183	March 1995
	Evaluation Calculations	Aerodynamic Multiplier	April 1999
	Evaluation Calculations	Two Paddy Adhesive Set System	April 1999
American Test Lab of South Florida	RT0908.02-14	TAS 112	09/18/14
	RT0912.02-14	Restoring Moment Aerodynamic Multiplier	09/18/14
	RT1021.01-15	TAS112	12/10/15
	RT1211.01-15	Restoring Moment	12/11/15
	RT1211.01-15	Aerodynamic Multiplier	12/11/15
	RT1203.02-18	TAS 112	12/11/18
	RT0531.02-19	TAS 112	05/31/19
NEMO ETC, LLC	4c-DPBS-20-LSOTM-01.A-R1	TAS 101	12/17/20
PRI Construction Materials Technologies	2002T0003.09	TAS 101	10/05/20

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 in accordance with TAS 106 may required, refer to applicable building code.
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 Building and Neighborhood Compliance Department – Product Control Section for review.
3.4 Minimum underlayment shall be in compliance with the applicable Roofing Applications Standards listed section 4.1 herein.
3.5 4/12 Minimum slope for mechanically attached tiles.
3.6 30/90 hot mopped underlayment applications may be installed perpendicular to the roof slope unless stated otherwise by the underlayment material manufacturers published literature.
3.7 This acceptance is for wood deck applications. Minimum deck requirements shall be in compliance with applicable building code.

4. INSTALLATION

4.1 Crown Tuscany Roof Tile and its components shall be installed in strict compliance with Roofing Application Standard RAS 118, RAS 119, and 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)
Tuscany Crown Roof Tile	10.0	1.42	1.08

Table 2: Aerodynamic Multipliers - λ (ft^3)

Tile Profile	λ (ft^3) Batten Application	λ (ft^3) Direct Deck Application
Tuscany Crown Roof Tile	0.289	0.313

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	
Tuscany Crown Roof Tile	Battens	Direct Deck	Battens	Direct Deck	Battens	Direct Deck	Battens	Direct Deck	Battens	Direct Deck	Battens	Direct Deck
	N/A	7.06	N/A	6.99	6.88	6.88	6.73	6.74	6.57	6.57	6.39	6.39

Table 4: Attachment Resistance Expressed as a Moment - M_f (ft.-lbf) for Mechanically Attached Systems				
Tile Profile	**Fastener Type**	**Direct Deck (min 15/32" plywood)**	**Direct Deck (min. 19/32" plywood)**	**Battens**
Tuscany Crown Roof Tile	2-10d Ring Shank Nails	27.8	37.4	28.8
	1-10d Smooth or Screw Shank Nail	8.8	11.8	4.1
	2-10d Smooth or Screw Shank Nails	16.4	21.9	7.1
	1 #8 Screw	25.8	25.8	22.9
	2 #8 Screw	47.1	47.1	49.1
	1-10d Smooth or Screw Shank Nail (Field Clip)	24.3	24.3	24.2
	1-10d Smooth or Screw Shank Nail (Eave Clip)	19.0	19.0	22.1
	2-10d Smooth or Screw Shank Nails (Field Clip)	35.5	35.5	34.8
	2-10d Smooth or Screw Shank Nails (Eave Clip)	31.9	31.9	32.2

Table 5: Attachment Resistance Expressed as a Moment - M_f (ft.-lbf) for Mechanically Attached Systems				
Tile Profile	**Fastener Type**	**Direct Deck (min 15/32" plywood)**	**Direct Deck (min. 19/32" plywood)**	**Battens**
Tuscany Crown Roof Tile	2-10d Ring Shank Nails[1]	43.0	67.5	50.9
1 Installation with a 4" tile headlap and fasteners are located a min. of 2½" from head of tile.				

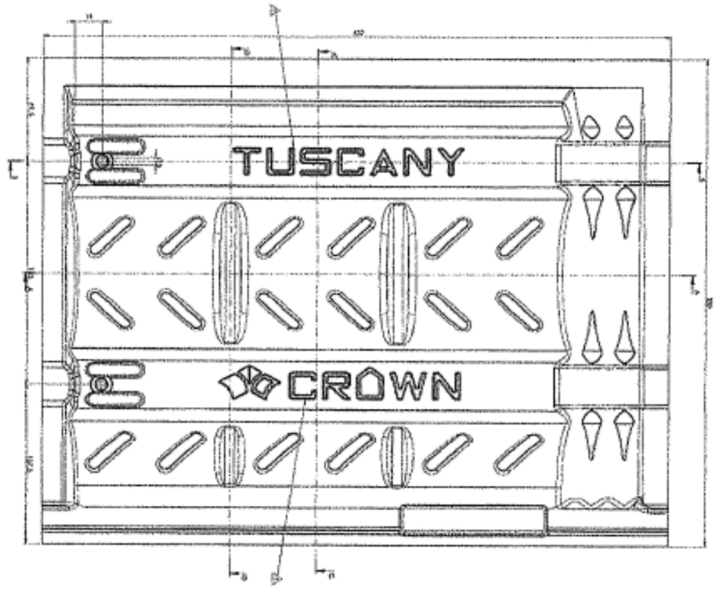
Table 6: Attachment Resistance Expressed as a Moment M_f (ft.-lbf) for Two Patty Adhesive[1] Set Systems		
Tile Profile	**Tile Application**	**Minimum Attachment Resistance**
Tuscany Crown Roof Tile	TILE BOND™ Roof Tile Adhesive	35[2]
	ICP Adhesives Polyset® AH-160	26.1[3]
	Touch 'N Seal StormBond® (one component)	86[4]
1 See manufactures component approval for installation requirements.		
2 Medium paddy weight of 16 grams per paddy of TILE BOND™ Roof Tile Adhesive		
3 Medium paddy weight of 8 grams per paddy of Polyset® AH-160		
4 Medium paddy weight of 8 grams between tile and underlayment, paddy weight of 5 grams on overlap of tile of Touch 'N Seal StormBond ® (one component)		

Table 7: Attachment Resistance Expressed as a Moment - M_f (ft-lbf) for Single Patty Adhesive[5] Set Systems		
Tile Profile	**Tile Application**	**Minimum Attachment Resistance**
Tuscany Crown Roof Tile	TILE BOND™ Roof Tile Adhesive	67[6]
	Polyset AH-160	86.6[7]
	Polyset AH-160	45.5[8]
5 See manufactures component approval for installation requirements		
6 Medium paddy weight of 16 grams of TILE BOND™ Roof Tile Adhesive		
7 Large paddy weight of 54 grams of Polyset® AH-160.		
8 Medium paddy weight of 24 grams of Polyset® AH-160		

Table 8: Attachment Resistance Expressed as a Moment - M_f (ft.-lbf) for Mortar Set Systems		
Tile Profile	**Tile Application**	**Attachment Resistance**
Tuscany Crown Roof Tile	Mortar Set[9]	20.6
9 See specific mortar manufacturers Notice of Acceptance		

5. LABELING

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



LABEL FOR CROWN TUSCANY ROOF TILE)
(LOCATED ON THE UNDERSIDE OF TILE)

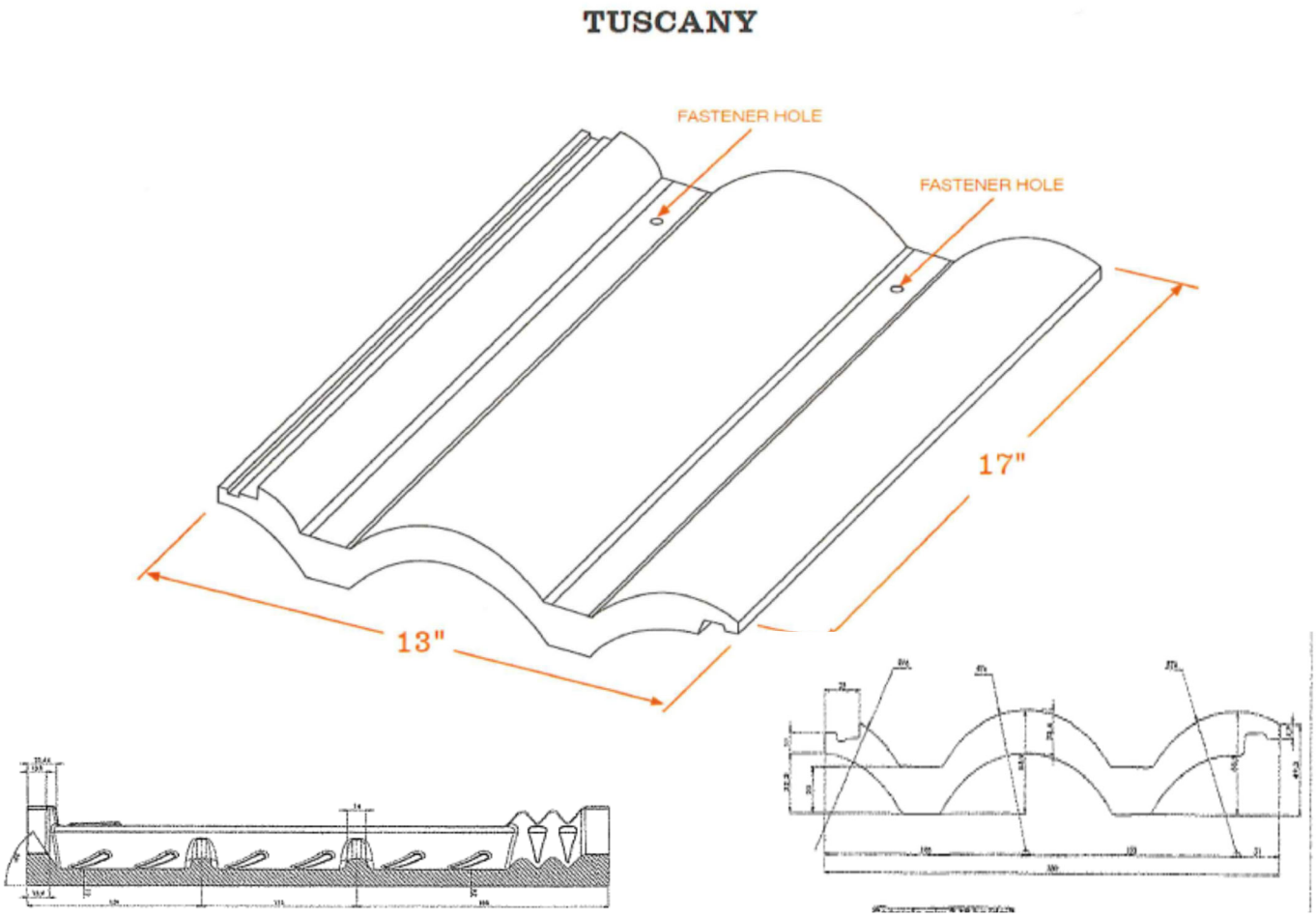
6. BUILDING PERMIT REQUIREMENTS:

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.

PROFILE DRAWING



CROWN TUSCANY ROOF TILE

END OF THIS ACCEPTANCE