



**BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION**

**MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908**

NOTICE OF ACCEPTANCE (NOA)

**Oldcastle Westile Inc.
1900 NW 21st Ave.
Fort Lauderdale, FL 33311**

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) 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 Division (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. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division 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 High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Flat, Shake & Slate Concrete 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 consists of pages 1 through 5.

The submitted documentation was reviewed by Frank Zuloaga, RRC



**NOA No.: 02-0328.06
Expiration Date: 05/02/07
Approval Date: 05/02/02
Page 1 of 5**

ROOFING ASSEMBLY APPROVAL

Category: Roofing
Sub Category: Flat Profile Tile
Material: Concrete

1.SCOPE

This NOA renews roofing system using “Oldcastle Westile Flat, Shake and Slate Concrete Roof Tile”, as manufactured by Oldcastle Westile, Inc. described in Section 2 of this Notice of Acceptance. For the locations where the pressure requirements, as determined by applicable building code, does not exceed the design pressure values obtain 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>
Flat, Shake and Slate Concrete Tile	Length: 16½" Width:13" Thickness: 5/8"	PA 112	Flat, interlocking, high pressure extruded concrete shake and slate roof tile equipped with two nail holes. For direct deck or battened nail-on, mortar or adhesive set applications.
Trim Pieces	Length: varies Width: varies varying thickness	PA 112	Accessory trim, concrete roof pieces for use at hips, rakes, ridges and valley terminations. Manufactured for each tile profile.

3. LIMITATIONS

- 3.1 Fire classification is not part of this acceptance.
- 3.2 Applicant shall retain the services of a Miami Dade County Certified Laboratory to perform quarterly test in accordance with PA 112, appendix ‘A’. Such testing shall be submitted to the Miami-Dade County Product Control Division for review.
- 3.3 Minimum underlayment shall be in compliance with the applicable Roofing Application Standard listed section 4.1 herein.
- 3.4 30/90 hot mopped underlayment applications may be installed perpendicular to the roof slope unless stated otherwise by the underlayment material manufacturers published literature.
- 3.5 This acceptance is for wood deck applications. Minimum deck requirements shall be in compliance with applicable building code.
- 3.6 May be installed on slopes 7:12 and greater



4. INSTALLATION

4.1 "Flat Shake and Slate Concrete 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: Aerodynamic Multipliers (ft ³)		
Tile Profile	(ft ³) Batten Application	(ft ³) Direct Deck Application
Flat, Shake & Slate Concrete Tile	0.27	0.29

Table 2: Restoring Moments due to Gravity - M _g (ft-lbf)										
Tile Profile	3":12"		4":12"		5":12"		6":12"		7":12" or greater	
	Battens	Direct Deck	Battens	Direct Deck						
Flat, Shake & Slate Concrete Tile	6.57	7.52	6.47	7.43	6.33	7.27	6.17	7.09	6.00	N/A

Table 3: Attachment Resistance Expressed as a Moment - M _f (ft-lbf) for Nail-On Systems									
Tile Profile	Tile Application	Approved Nails		Approved Screws		Approved Field Clip With:		Approved Eave Clip With:	
		1 nail	2 nails	1 screw	2 screws	1 nail	2 nails	1 nail	2 nails
Flat, Shake & Slate Concrete Tile	Battens	4.90	7.40	18.20	28.60	24.20	34.80	22.10	32.20
	Direct Deck	9.80	18.80	30.80	51.70	24.30	35.50	19.00	31.90

1. Data noted in Table 3 is for installation with a 3" tile headlap.

Table 3-A: Attachment Resistance Expressed as a Moment - M _f (ft-lbf) For Nail-On Systems		
Tile Profile	Tile Application	Two (2) 10d x 3" long nails
Flat, Shake & Slate Concrete Tile	Direct Deck New Construction (min. 1 ⁹ / ₃₂ " plywood)	65.50
	Direct Deck Recover/Reroof (min. 1 ⁵ / ₃₂ " plywood)	50.30
	Battens New Construction	48.30

Tile installation with a 4" headlap using two (2) Approved 10d x 3" long polymer coated, corrosion resistant, ring shank nails installed in manufactured holes located 2½" from the head of the tile. Clips on eave tile are not required for this attachment configuration unless the Required Moment of Resistance exceeds the values noted above.



Table 4: Attachment Resistance Expressed as a Moment - M_f (ft-lbf) for Mortar or Adhesive Set Systems		
Tile Profile	Tile Application	Attachment Resistance
Flat, Shake & Slate Concrete Tile	Mortar Set	39.00
	Adhesive Set	118.90

5. LABELING

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

6. BUILDING PERMIT REQUIREMENTS

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

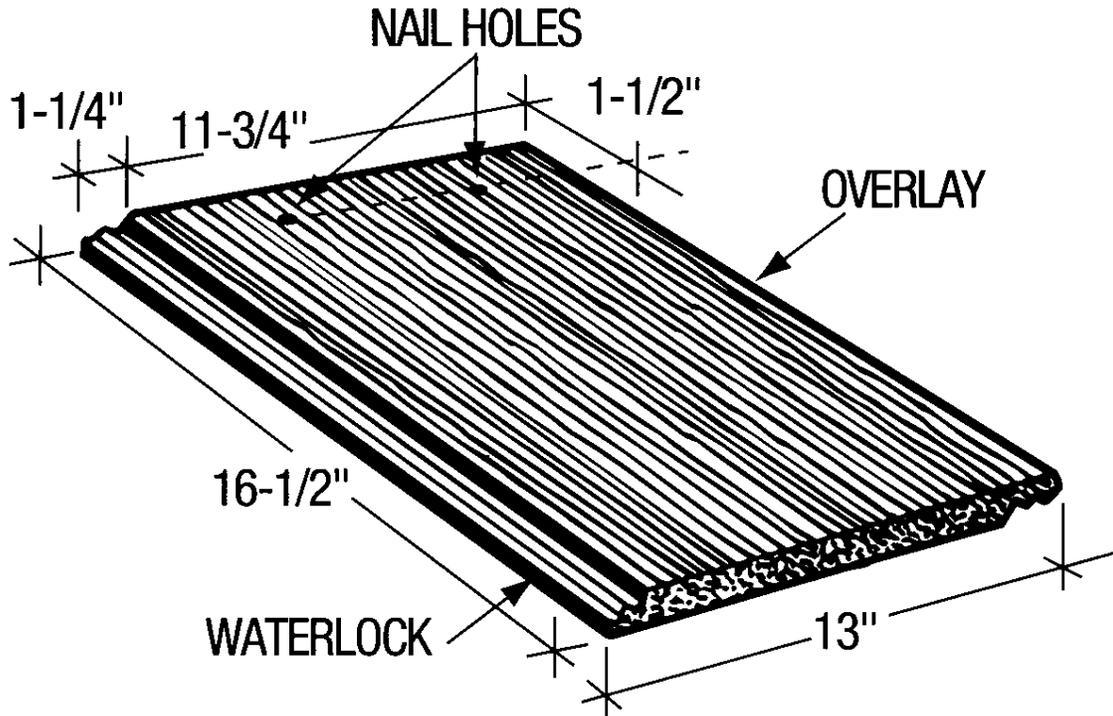
6.1.1 This Notice of Acceptance.

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



PROFILE DRAWING

FLAT, SHAKE & SLATE CONCRETE TILE



END OF THIS ACCEPTANCE



A. TESTS:

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Test Name/Report</u>	<u>Date</u>
Redland Technologies	7161-03 Appendix III	Static Uplift Testing PA 102	Dec. 1991
Redland Technologies	7161-03 Appendix III	Static Uplift Testing PA 102(A)	Dec. 1991
The Center for Applied Engineering, Inc.	94-084	Static Uplift Testing PA 101 (Mortar Set)	May 1994
The Center for Applied Engineering, Inc.	94-060A	Static Uplift Testing PA 101 (Adhesive Set)	March, 1994
The Center for Applied Engineering, Inc.	25-7094-2	Static Uplift Testing PA 102 (4" Headlap, Nails, Direct Deck, New Construction)	Oct. 1994
The Center for Applied Engineering, Inc.	25-7094-8	Static Uplift Testing PA 102 (4" Headlap, Nails, Battens)	Oct. 1994
The Center for Applied Engineering, Inc.	25-7094-5	Static Uplift Testing PA 102 (4" Headlap, Nails, Direct Deck, Recover/Reroof)	Oct. 1994
The Center for Applied Engineering, Inc.	25-7183-6	Static Uplift Testing PA 102 (2 Quik-Drive Screws, Direct Deck)	Feb. 1995
The Center for Applied Engineering, Inc.	25-7183-5	Static Uplift Testing PA 102 (2 Quik-Drive Screws, Battens)	Feb. 1995
The Center for Applied Engineering, Inc.	25-7214-1	Static Uplift Testing PA 102 (1 Quik-Drive Screw, Direct Deck)	March, 1995
The Center for Applied Engineering, Inc.	25-7214-5	Static Uplift Testing PA 102 (1 Quik-Drive Screw, Battens)	March, 1995
Redland Technologies	7161-03 Appendix II	Wind Tunnel Testing PA 108 (Nail-On)	Dec. 1991
Redland Technologies	Letter Dated Aug. 1, 1994	Wind Tunnel Testing PA 108 (Nail-On)	Aug. 1994
Redland Technologies	P0631-01	Wind Tunnel Testing PA 108 (Mortar Set)	July 1994
Redland Technologies	P0402	Withdrawal Resistance Testing of screw vs. smooth shank nails	Sept. 1993
The Center for Applied Engineering, Inc.	Project No. 307025 Test #MDC-77	Wind Driven Rain PA 100	Oct. 1994
Professional Service Industries, Inc.	383-97044	Physical Properties PA 112	May 1999

B. OTHER

1. NTRMA Association Member
2. Notice of Acceptance number 99-0603.01