



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)

U.S. Tile
11403 NW 39 Street
Miami, FL. 33178

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 the BCCO and accepted by the Building Code and Product Review Committee 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 Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Proshake Plus

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 consists of pages 1 through 6.
The submitted documentation was reviewed by Alex Tigera.



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Expiration Date: 03/30/11
Approval Date: 03/30/06
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ROOFING ASSEMBLY APPROVAL

Category: Roofing
Sub-Category: 07320 Roofing Tiles
Material: Clay
Deck Type: Wood

1. SCOPE

This approves a new roofing system using "Proshake Plus Tile" as manufactured by U.S. Tile and 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> |
|----------------------------------|---|----------------------------|--|
| Proshake Plus Tile | N/A | ASTM C1167 | Flat profile clay roof tile. For adhesive set, direct deck or battened nail-on applications. |
| Trim Pieces | l = varies w = varies varying thickness | ASTM C1167 | Accessory trim, clay roof pieces for use at hips, rakes, ridges and valley terminations. Manufactured for each tile profile. |

2.1 SUBMITTED EVIDENCE:

| <u>Test Agency</u> | <u>Test Identifier</u> | <u>Test Name/Report</u> | <u>Date</u> |
|---|------------------------------|---|-------------|
| PRI Asphalt Technologies | UST-002-02-01 | ASTM C 1167 | Sept. 05 |
| 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 |
| Redland Technologies | 7161-03 Appendix II | Wind Tunnel Testing PA 108 (Nail-On) | Dec. 1991 |
| Redland Technologies | P0402 | Withdrawal Resistance Testing of screw vs. smooth shank nails | Sept. 1993 |
| Redland Technologies | Letter Dated Aug. 1, 1994 | Wind Tunnel Testing PA 108 (Nail-On) | Aug. 1994 |
| Redland Technologies | P09647-01 | Wind Tunnel Testing PA 108 (Mortar Set) | Aug. 1994 |
| The Center for Applied Engineering, Inc. | 94-084 | Static Uplift Testing PA 101 (Mortar Set) | May 1994 |



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| | | | |
|--|----------------------|----------------------------------|-------------|
| The Center for Applied Engineering, Inc. | 25-7094-(2, 5, & 8) | Static Uplift Testing PA 102 | Oct. 1994 |
| The Center for Applied Engineering, Inc. | 25-7183-(5 thru 6) | Static Uplift Testing PA 102 | Feb. 1995 |
| The Center for Applied Engineering, Inc. | 25-7214-(1, 5, & 8) | Static Uplift Testing PA 102 | March, 1995 |
| The Center for Applied Engineering, Inc. | 25-7487-2 | Static Uplift Testing PA 102 | Dec. 1995 |
| The Center for Applied Engineering, Inc. | 25-7496-(1 & 4) | Static Uplift Testing PA 102 | Dec. 1995 |
| The Center for Applied Engineering, Inc. | 25-7804-6 | Static Uplift Testing PA 102 | Sep. 1996 |
| Celotex Corporation Testing Service | 520109-1 520111-4 | Static Uplift Testing PA 101 | Dec. 1998 |
| Celotex Corporation Testing Service | 520191-1 | Static Uplift Testing PA 101 | March 1999 |
| Walker Engineering, Inc. | Calculations | Aerodynamic Multiplier | March 1999 |
| Walker Engineering, Inc. | Calculations | Restoring Moments Due to Gravity | Feb 2006 |

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 PA 106.
- 3.3 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 Building Code Compliance Office for review.
- 3.4 Minimum underlayments 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 chapter 29 of the SFBC.



4. INSTALLATION

4.1 U.S. Tile Co. 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) |
| Proshake Plus Flat Tile | 3.8 | 1.16 | .71 |

| Table 2: Aerodynamic Multipliers - λ (ft ³) | | |
|---|--|---|
| Tile Profile | λ (ft ³) Batten Application | λ (ft ³) Direct Deck Application |
| Proshake Plus Flat Tile | N/A | 0.316 |

| Table 3: Restoring Moments due to Gravity - M_g (ft-lbf) | | | | | | | | | | |
|--|---------|-------------|---------|-------------|---------|-------------|---------|-------------|---------------------|-------------|
| Tile Profile | 3":12" | | 4":12" | | 5":12" | | 6":12" | | Greater than 7":12" | |
| | Battens | Direct Deck | Battens | Direct Deck |
| Proshake Plus Flat Tile | N/A | 2.26 | N/A | 2.23 | N/A | 2.18 | N/A | 2.13 | N/A | 2.07 |

| Table 4: Attachment Resistance Expressed as a Moment - M_r (ft-lbf) for Nail-On Systems | | | | |
|--|--|-------------------------------------|--------------------------------------|---------|
| Tile Profile | Fastener Type | Direct Deck (min 15/32" plywood) | Direct Deck (min. 19/32" plywood) | Battens |
| Proshake Plus Flat Tile | 2-10d Ring Shank Nails | 30.9 | 38.1 | N/A |
| | 1-10d Smooth or Screw Shank Nail | 7.3 | 9.8 | N/A |
| | 2-10d Smooth or Screw Shank Nails | 14.0 | 18.8 | N/A |
| | 1 #8 Screw | 30.8 | 30.8 | N/A |
| | 2 #8 Screw | 51.7 | 51.7 | N/A |
| | 1-10d Smooth or Screw Shank Nail (Field Clip) | 24.3 | 24.3 | N/A |
| | 1-10d Smooth or Screw Shank Nail (Eave Clip) | 19.0 | 19.0 | N/A |
| | 2-10d Smooth or Screw Shank Nails (Field Clip) | 35.5 | 35.5 | N/A |
| | 2-10d Smooth or Screw Shank Nails (Eave Clip) | 31.9 | 31.9 | N/A |
| | 2-10d Ring Shank Nails ¹ | 50.3 | 65.5 | N/A |

1. Installation with a 3" tile headlap and fasteners are located a min. of 2½" from head of tile.



| Table 5: Attachment Resistance Expressed as a Moment M_f (ft-lbf) for Two Patty Adhesive Set Systems | | |
|---|-----------------------|-------------------------------|
| Tile Profile | Tile Application | Minimum Attachment Resistance |
| Proshake Plus Flat Tile | Adhesive ² | 31.3 ³ |
| 2 See manufactures component approval for installation requirements. | | |
| 3 Flexible Products Company TileBond Average weight per patty 13.9 grams. Polyfoam Product, Inc. Average weight per patty 8 grams. | | |

| Table 5A: Attachment Resistance Expressed as a Moment - M_f (ft-lbf) for Single Patty Adhesive Set Systems | | |
|---|------------------|-------------------------------|
| Tile Profile | Tile Application | Minimum Attachment Resistance |
| Proshake Plus Flat Tile | PolyPro™ | 118.9 ⁴ |
| | PolyPro™ | 40.4 ⁵ |
| 4 Large paddy placement of 45 grams of PolyPro™. | | |
| 5 Medium paddy placement of 24 grams of PolyPro™. | | |

| Table 5B: Attachment Resistance Expressed as a Moment - M_f (ft-lbf) for Mortar or Adhesive Set Systems | | |
|--|-------------------------|-----------------------|
| Tile Profile | Tile Application | Attachment Resistance |
| Proshake Plus Flat Tile | Mortar Set ⁶ | 43.9 |
| 6 Tile-Tite Roof Tile Mortar. | | |

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

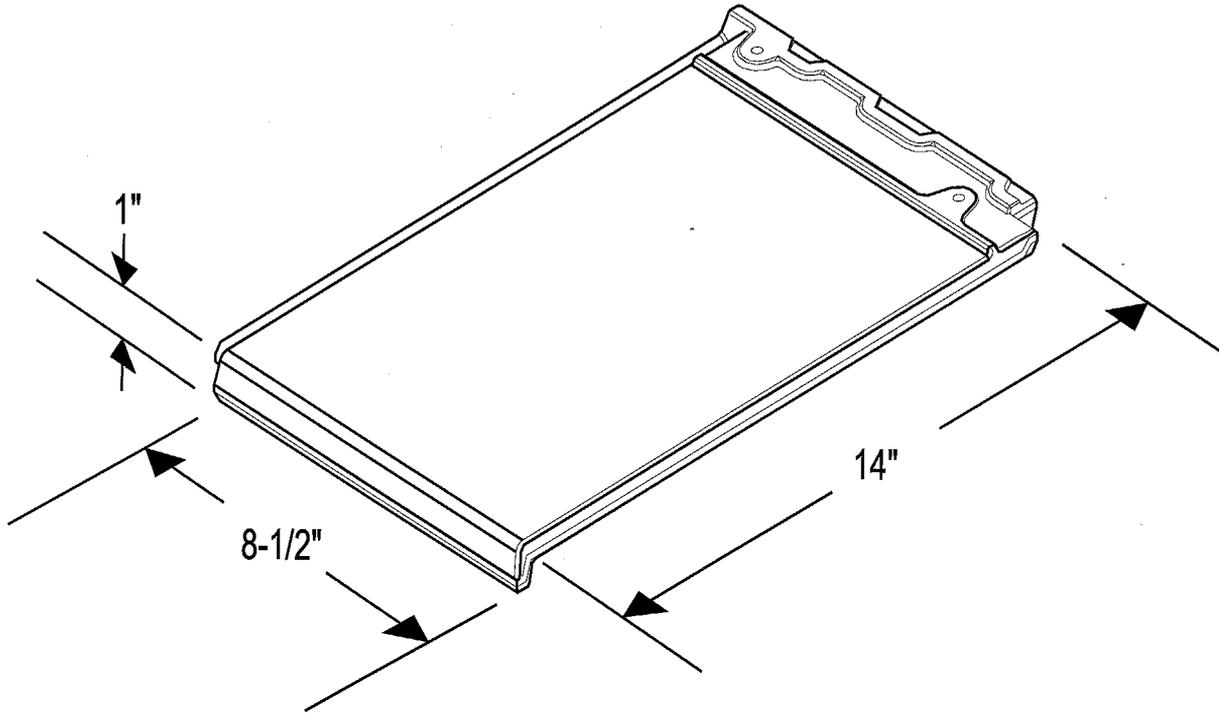
6.1 Application for building permit shall be accompanied by copies of the following:

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



END OF THIS ACCEPTANCE



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