



MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING

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

PRODUCT CONTROL NOTICE OF ACCEPTANCE

Ludowici-Celadon, Inc.
4757 Tile Plant Road
New Lexington OH 43764

CONTRACTOR LICENSING SECTION
(305) 375-2527 FAX (305) 375-2558

CONTRACTOR ENFORCEMENT SECTION
(305) 375-2966 FAX (305) 375-2908

PRODUCT CONTROL DIVISION
(305) 375-2902 FAX (305) 372-6339

Your application for Product Approval of:

High Profile-Two Piece System

under Chapter 8 of the Code of Miami-Dade County governing the use of Alternate Materials and Types of Construction, and completely described herein, has been recommended for acceptance by the Miami-Dade County Building Code Compliance Office (BCCO) under the conditions specified herein.

This approval shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at anytime from a jobsite or manufacturer's plant for quality control testing.

If this product or material fails to perform in the approved manner, BCCO may revoke, modify, or suspend the use of such product or material immediately. BCCO reserves the right to revoke this approval, if it is determined BCCO that this product or material fails to meet the requirements of the South Florida Building Code.

The expense of such testing will be incurred by the manufacturer.

Acceptance No.: 00-0426.04

Expires: 12/16/2002

Raul Rodriguez
Chief Product Control Division

THIS IS THE COVERSHEET, SEE ADDITIONAL PAGES FOR SPECIFIC AND GENERAL CONDITIONS

BUILDING CODE & PRODUCT REVIEW COMMITTEE

This application for Product Approval has been reviewed by the BCCO and approved by the Building Code and Product Review Committee to be used in Dade County, Florida under the conditions set forth above.

Francisco J. Quintana, R.A.
Director

Miami-Dade County
Building Code Compliance Office

Approved: 06/22/2000

1 of 7



APPROVED: June 22, 2000

EXPIRES: December 16, 2002

NOTICE OF ACCEPTANCE: STANDARD CONDITIONS

1. SCOPE

This renews a roofing system using Ludowici **“Straight, Palm Beach Tapered, Cubana, and Tapered Mission”** Clay Roof Tile, as manufactured Ludowici Roof Tile, Inc. described in Section 2 of this Notice of Acceptance, designed to comply with the South Florida Building Code, 1994 Edition for Miami-Dade County. For the locations where the pressure requirements, as determined by SFBC Chapter 23, do 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.

Category: Roofing
Sub Category: Tile / High Profile

2. PRODUCT DESCRIPTION

<u>Manufactured by Applicant</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
Ludowici Straight Barrel, Mission Roof Tile	l = 18", 16" or 14 1/4 " w = 8 " Varying thickness	ASTM C 1167	High profile, two-piece, vitrified clay roof tile equipped with one nail hole. For direct deck, nail-on applications.
Ludowici Palm Beach Tapered and Cubana Mission Roof Tile	l = 18" w = 8 " Varying thickness	ASTM C 1167	High profile, two-piece, vitrified clay roof tile equipped with one nail hole. For direct deck, nail-on applications.
Ludowici Tapered Mission Roof Tile	l = 18" w = 8 " Varying thickness	ASTM C 1167	High profile, two-piece, vitrified clay roof tile equipped with one nail hole. For direct deck, nail-on applications.
Trim Pieces	l = varies w = varies varying thickness	ASTM C 1167	Accessory trim, clay roof pieces for use at hips, rakes, ridges and valley terminations. Manufactured for each tile profile.

2.1 Components or products manufactured by others

<u>Product</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>	<u>Manufacturer</u>
#30 Felt	N/A	ASTM D 226 type II	Saturated organic felt to be used as a nailed anchor sheet.	generic



Frank Zuloaga, RRC
Roofing Product Control Examiner

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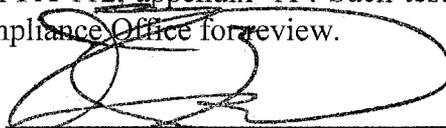
EXPIRES: December 16, 2002

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<u>Product</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>	<u>Manufacturer</u>
#43 Coated Base Sheet	N/A	ASTM D 2626	Saturated and coated organic base sheet for single or double ply underlayment.	generic
Mineral Surface Cap Sheet	N/A	ASTM D 249	Mineral surfaced asphalt roll roofing for use as a top ply in a double ply underlayment system.	generic
Rainproof II	30" x 75' roll 36" x 75' roll or 60" x 75' roll	PA 104	Single ply, nail-on underlayment with 2" self-adhering top edge.	Protect-O-Wrap, Inc. with current NOA
Ice and Water Shield	36" x 75' roll	PA 103	Self-adhering underlayment for use as a top ply in a two ply underlayment system with Approved #30 or #43 as the base layer.	W.R. Grace Co. with current NOA
Roof Tile Adhesive ("Polypro® AH160")	N/A	See NOA	Two component polyurethane adhesive designed for adhesive set roof tile applications.	Polyfoam Products, Inc.
Roof Tile Adhesive TileBond	Factory premixed canisters	See NOA	Single component polyurethane foam roof tile adhesive	Flexible Products (with current NOA)

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 RAS 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.


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- 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 Ludowici "Straight, Palm Beach Tapered, Cubana, and Tapered Mission" Clay Roof Tile and its components shall be installed in strict compliance with Miami Dade County Roofing Application Standard RAS 120.

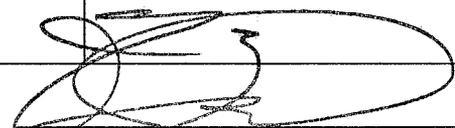
4.2 Data For Attachment Calculations

Table 1: Aerodynamic Multipliers - λ (ft³)	
Tile Profile	λ (ft³) Direct Deck Application
Straight Barrel, Palm Beach Tapered, Cubana, and Tapered Mission Barrel Tile	0.247

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
Straight Barrel, Palm Beach Tapered, Cubana, and Tapered Mission Barrel Tile	4.46	4.37	4.28	4.17	N/A

Table 3: Attachment Resistance Expressed as a Moment - M_r (ft-lbf) for Single Patty Adhesive Set Systems		
Tile Profile	Tile Application	Minimum Attachment Resistance
Straight Barrel, Palm Beach Tapered, Cubana, and Tapered Mission Barrel Tile	Polyfoam PolyPro™	177 (Clay tile) ⁵
	Flexible TileBond	115 (Clay tile) ⁶
5 Place 23 grams per pan and 23 grams per cap of PolyPro™.		
6 Place 11.8 grams per pan and 11.6 grams per cap of TileBond.		

Table 3A: Attachment Resistance Expressed as a Moment - M_r (ft-lbf) for Mortar Set Systems		
Tile Profile	Tile Application	Attachment Resistance
Straight Barrel, Palm Beach Tapered, Cubana, and Tapered Mission Barrel Tile	Mortar Set ¹	24.5


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5. LABELING

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".

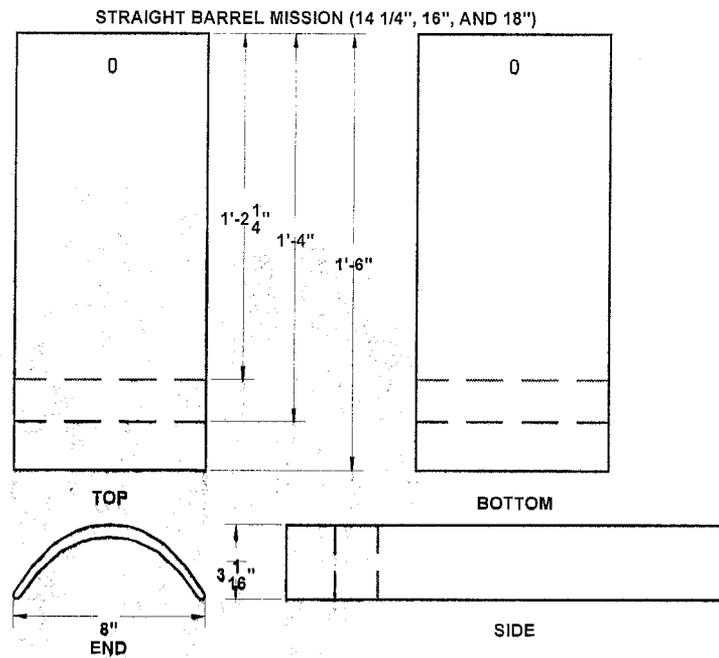
6. BUILDING PERMIT REQUIREMENTS

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 the South Florida Building Code (SFBC) in order to properly evaluate the installation of this system.

PROFILE DRAWINGS



LUDOWICI STRAIGHT MISSION BARREL CLAY ROOF TILE

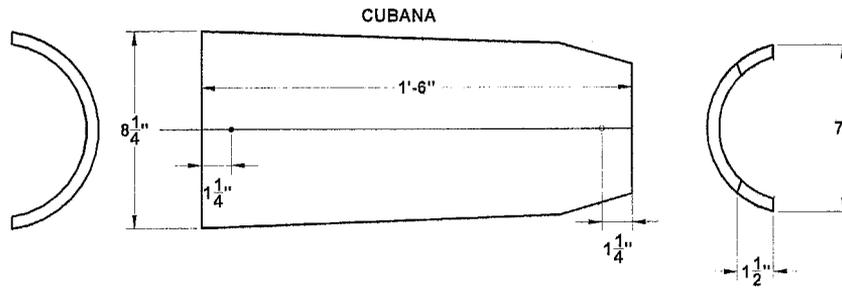
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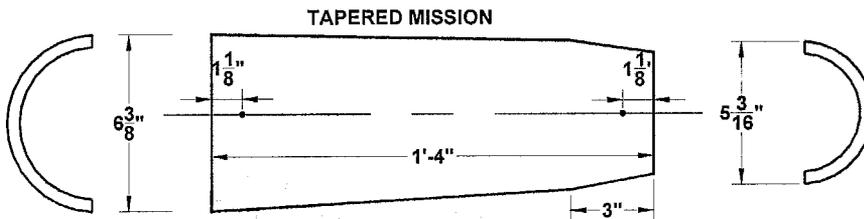
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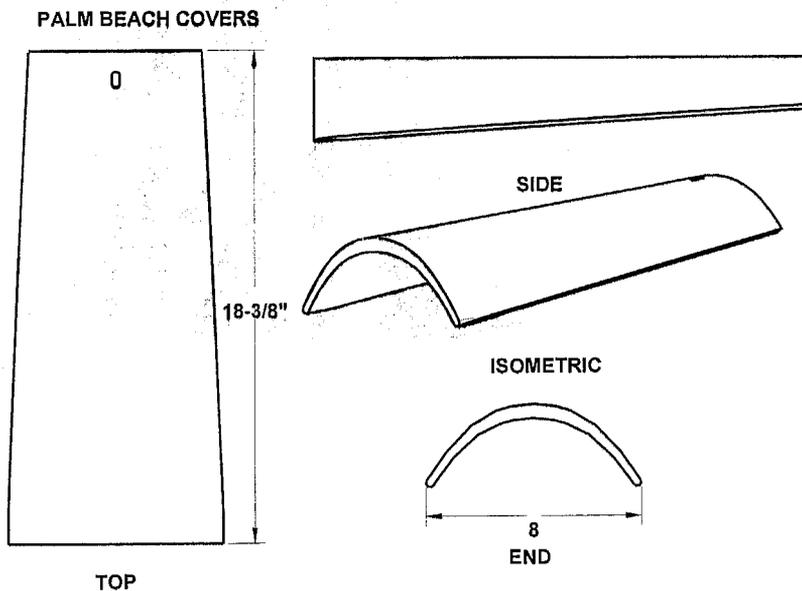
PROFILE DRAWINGS



LUDOWICI CUBANA CLAY ROOF TILE



LUDOWICI TAPERED MISSION CLAY ROOF TILE



LUDOWICI PALM BEACH TAPERED MISSION CLAY ROOF TILE


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NOTICE OF ACCEPTANCE: STANDARD CONDITIONS

1. Renewal of this Acceptance (approval) shall be considered after a renewal application has been filed and the original submitted documents, including test-supporting data, engineering documents, are no older than eight (8) years.
2. Any and all approved products shall be permanently labeled with the manufacturer's name, city, state, and the following statement: "Miami-Dade County Product Control Approval", or as specifically stated in the specific conditions of this Acceptance.
3. Renewals of Acceptance will not be considered if:
 - a. There has been a change in the South Florida Building Code affecting the evaluation of this product and the product is not in compliance with the code changes.
 - b. The product is no longer the same product (identical) as the one originally approved.
 - c. If the Acceptance holder has not complied with all the requirements of this acceptance, including the correct installation of the product.
 - d. The engineer who originally prepared, signed and sealed the required documentation initially submitted, is no longer practicing the engineering profession.
4. Any revision or change in the materials, use, and/or manufacture of the product or process shall automatically be cause for termination of this Acceptance, unless prior written approval has been requested (through the filing of a revision application with appropriate fee) and granted by this office.
5. Any of the following shall also be grounds for removal of this Acceptance:
 - a. Unsatisfactory performance of this product or process.
 - b. Misuse of this Acceptance as an endorsement of any product, for sales, advertising or any other purposes.
6. The Notice of Acceptance 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 Notice of Acceptance is displayed, then it shall be done in its entirety.
7. A copy of this Acceptance as well as approved drawings and other documents, where it applies, shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at all time. The engineer need not reseal the copies.
8. Failure to comply with any section of this Acceptance shall be cause for termination and removal of Acceptance.
9. This Notice of Acceptance consists of pages 1 through 6 and this last page 7.

END OF THIS ACCEPTANCE



Frank Zuloaga, RRC
Roofing Product Control Examiner