

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/economy

### **NOTICE OF ACCEPTANCE (NOA)**

DuPont de Nemours, Inc. 974 Centre Road Chestnut Run Plaza 721-2246 Wilmington, DE 19805

#### **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: TILE BOND<sup>TM</sup> Roof Tile Adhesive**

**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# 21-1006.03 and consists of pages 1 through 12.

The submitted documentation was reviewed by Alex Tigera.

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### ROOFING COMPONENT APPROVAL

Category: Roofing

**Sub Category:** Roof Tile Adhesive **Material:** Polyurethane

#### **SCOPE:**

This approves TILE BOND<sup>TM</sup> Roof Tile Adhesive and TILE BOND<sup>TM</sup> Roof Tile Adhesive (HFO) as manufactured by **DuPont de Nemours**, **Inc.** as described in this Notice of Acceptance. For the locations where the pressure requirements, as determined by applicable building code, do not exceed the design pressure values; as obtained by calculations in compliance with Roofing Application Standard RAS 127. For use with approved flat, low, and high profile roof tile systems and two piece barrel profiles using TILE BOND<sup>TM</sup> Roof Tile Adhesives.

### PRODUCTS MANUFACTURED BY APPLICANT:

<u>Product</u>	<b>Dimensions</b>	<u>Test</u> Specifications	<b>Product Description</b>
TILE BOND <sup>TM</sup> Roof Tile Adhesive	N/A	TAS 101	Single component polyurethane foam roof tile adhesive
TILE BOND <sup>TM</sup> Roof Tile Adhesive (HFO)	N/A	TAS 101	Single component polyurethane foam roof tile adhesive

#### PRODUCTS MANUFACTURED BY OTHERS:

Any Miami-Dade County Product Control Accepted Roof Tile Assembly having a current NOA which list attachment resistance values with the use of TILE BOND<sup>TM</sup> Roof Tile Adhesive and TILE BOND<sup>TM</sup> Roof Tile Adhesive (HFO).

#### MANUFACTURING LOCATION:

1. Wilmington, IL

### **PHYSICAL PROPERTIES:**

# TILE BOND<sup>TM</sup> Roof Tile Adhesive

<b>Property</b>	<u>Test</u>	<u>Results</u>		
Density	ASTM D 1622	1.6 lbs./ft. <sup>3</sup>		
Compressive Strength	ASTM D 1621	Parallel to rise 20 psi		
		Perpendicular to rise 14 psi		
Tensile Strength	ASTM D 1623	31 lbf @ 180°F, 65% RH for 120 days, concrete to		
		concrete		
Water Absorption	ASTM D 2842	3% absorbed by Volume		
Moisture Vapor Transmission	ASTM E 96	0 perms		
Dimensional Stability	ASTM D 2126	-0.08% Volume Change @ -40°C., 2 weeks		
		-3.6% Volume Change @70°C., 100% Humidity,		
		2 weeks		
Closed Cell Content	ASTM D 2856	86%		



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# PHYSICAL PROPERTIES: (CONTINUED)

# TILE BOND<sup>TM</sup> Roof Tile Adhesive (HFO)

<b>Property</b>	<u>Test</u>	Results
Density	ASTM D 1622	2.2 lbs./ft. <sup>3</sup>
Compressive Strength	ASTM D 1621	23 psi parallel to rise
		19 psi perpendicular to rise
Tensile Strength	ASTM D 1623	42 lbf @ 180°F, 65% RH for 120 days, concrete to
		concrete
Water Absorption	ASTM D 2842	1% absorbed by Volume
Moisture Vapor Transmission	ASTM E 96	3.1 perms
Dimensional Stability	ASTM D 2126	-0.01% Volume Change @ -40°C., 2 weeks
		4.4 % Volume Change @70°C., 100% Humidity,
		2 weeks
Closed Cell Content	ASTM D 6226	94%

Note: The physical properties listed above are presented as typical average values as determined by accepted ASTM test methods and are subject to normal manufacturing variation

### **EVIDENCE SUBMITTED:**

<b>Test Agency</b>	<b>Test Identifier</b>	Test Name/Report	<b>Date</b>
IBA Consultants Inc.	4848-8	TAS 101	05/19/08
	4848-7	TAS 101	05/19/08
	4848-6	TAS 101	05/19/08
	4848-5	TAS 101	05/19/08
	4848-4	TAS 101	05/19/08
	4848-3	TAS 101	05/19/08
	4848-2	TAS 101	05/19/08
	4848-1	TAS 101	05/19/08
Trinity ERD	D9840.09.09	TAS 110	09/17/09
NEMO etc. LLC	4L-DOW-18-002.12.19-A-R1	TAS 101 / TAS 123	08/28/20
	4S-DOW-18-001.07.19-B-R1	TAS 110	07/31/19
	4P-DPBS-20-SSLAP-02.A	Physical Properties	07/06/21
	4c-DPBS-20-LSOTM-01.A.R2	TAS 101	12/17/20
	4c-DPBS-20-LSOTM-01.C.R2	TAS 101	12/17/20
	4c-DPBS-20-LSOTM-01.D.R2	TAS 101	12/17/20



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#### **INSTALLATION:**

- 1. TILE BOND<sup>TM</sup> Roof Tile Adhesives may be used with any roof tile assembly having a current NOA that lists attachment resistance values with the use of TILE BOND<sup>TM</sup> Roof Tile Adhesives.
- 2. TILE BOND<sup>TM</sup> Roof Tile Adhesives shall be applied in compliance with the Component Application section and the corresponding Placement Details noted herein. The roof tile assembly's adhesive attachment with the use of TILE BOND<sup>TM</sup> Roof Tile Adhesives shall provide sufficient attachment resistance to meet or exceed the resistance value determined in compliance with Miami-Dade County Roofing Application Standards RAS 127. The adhesive attachment data is noted in the roof tile assembly NOA.
- **3.** TILE BOND<sup>TM</sup> Roof Tile Adhesives and its components shall be installed in accordance with Roofing Application Standard RAS 120, and DuPont de Nemours, Inc. TILE BOND<sup>TM</sup> Roof Tile Adhesive Operating Instruction and Maintenance Booklet.
- **4.** Installation must be by a Factory Trained 'Qualified Applicator' approved and licensed by DuPont de Nemours, Inc.
- 5. Pressure treated wood filler block or suitable piece of broken tile of similar size and shape shall be required on the eave course installation of flat, medium and high profile tile installed with the Interdependent adhesive placement. Two-piece barrel tile and all other tiles installed with the Independent placement do not require the filler blocks.
- **6.** Tiles must be adhered in freshly applied adhesive. Tile must be set within 4 minutes after TILE BOND<sup>TM</sup> Roof Tile Adhesives has been dispensed.
- 7. TILE BOND<sup>TM</sup> Roof Tile Adhesive placement and minimum patty weight or minimum contact area shall be in accordance with the 'Placement Details' herein. Each generic tile profile requires the specific placement noted herein. Placement may be modified as needed for the particular tile configuration as long as the minimum contact area is achieved.

### **LIMITATIONS:**

- 1. Fire classification is not part of this acceptance.
- 2. TILE BOND<sup>TM</sup> Roof Tile Adhesives can be used with cap and pan, ridge, flat, low, medium and high tile profiles.
- 3. Minimum underlayment shall be in compliance with the Roofing Application Standard RAS 120.
- **4.** Roof Tile manufactures acquiring acceptance for the use of TILE BOND<sup>TM</sup> Roof Tile Adhesives with their tile assemblies shall test in accordance with TAS 101 with section 10.4 as modified herein.

$$F' = \frac{\left(\frac{F}{2}\right) - W}{MS}$$

5. 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.



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### LABELING:

All approved products listed herein shall be labeled and shall bear the imprint or identifiable marking of the manufacturer's name or logo and following statement: "Miami-Dade County Product Control Approved" or the Miami-Dade County Product Control Seal as shown below.



### **BUILDING PERMIT REQUIREMENTS:**

As required by the Building Official or applicable building code in order to properly evaluate the installation of this system.

TABLE 1: ADHESIVE PLACEMENT FOR EACH GENERIC TILE PROFILE TILE BOND <sup>TM</sup> Roof Tile Adhesive and TILE BOND <sup>TM</sup> Roof Tile Adhesive (HFO)				
Tile Profile	Tile Attachment	Placement Detail	Minimum patty Weight per tile (grams)	Minimum Contact Area per tile (Square inches)
Flat / Low Profile	Interdependent	#1	25	32
Flat / Low Profile	Independent	#2	12.5	16
Medium Profile	Interdependent	#3	25	32
Medium Profile	Independent	#4	12.5	16
High Profile (Head) High Profile (Nose)	Interdependent	#5	12.5 12.5	16 16
High Profile Stacked beads	Independent	#6	25	15
Two Piece Barrel	Interdependent	#7	25	20
Trim Lock Metal Ridge Board or 2x Ridge Board	Interdependent	#1,2,3,4,5,6,7	25	13.5

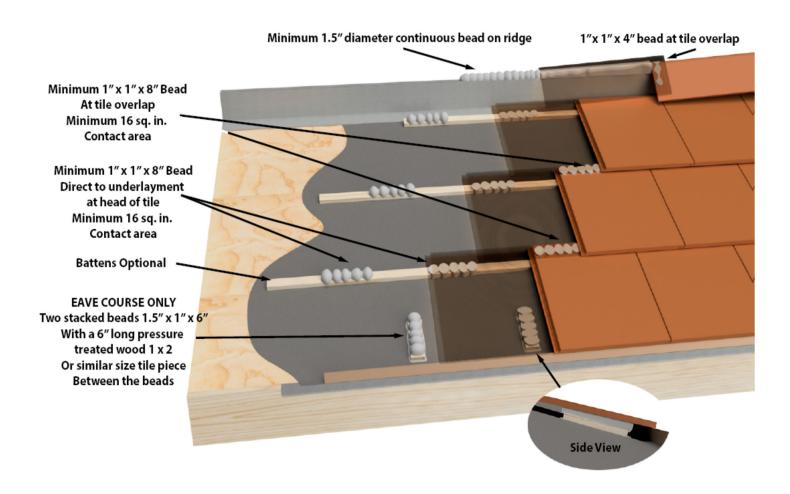


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### **ADHESIVE PLACEMNT DETAILS**

# DETAIL #1: LOW (FLAT) PROFILE - INTERDEPENDENT PADDY PLACEMENT





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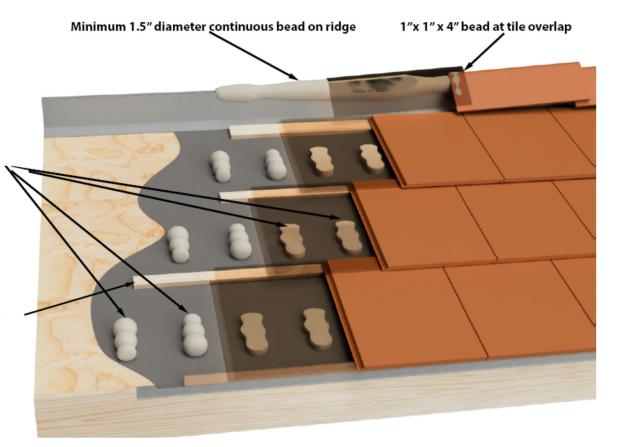
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# DETAIL #2: LOW (FLAT) PROFILE - INDEPENDENT PADDY PLACEMENT

Two parallel beads minimum 2" x 2" x 4" Placed apx. 1" above head of previous row or apx. 4" from eave

Minimum 8 sq. in. contact area per bead

**Battens Optional** 

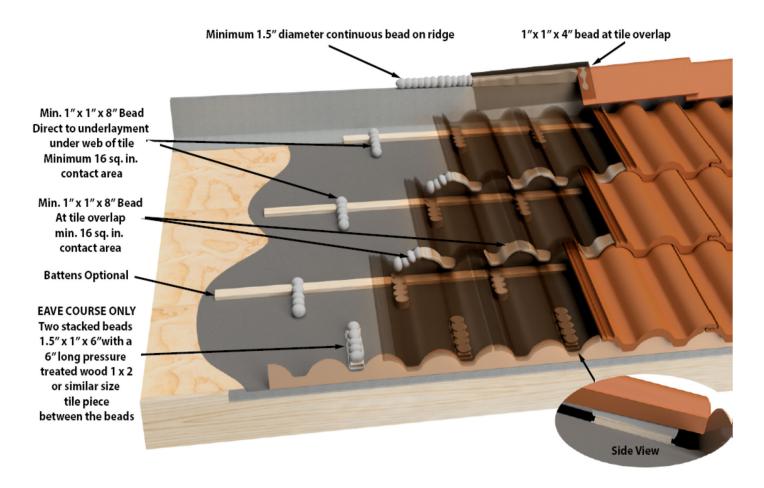




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# DETAIL #3: MEDIUM PROFILE - INTERDEPENDENT PADDY PLACEMENT

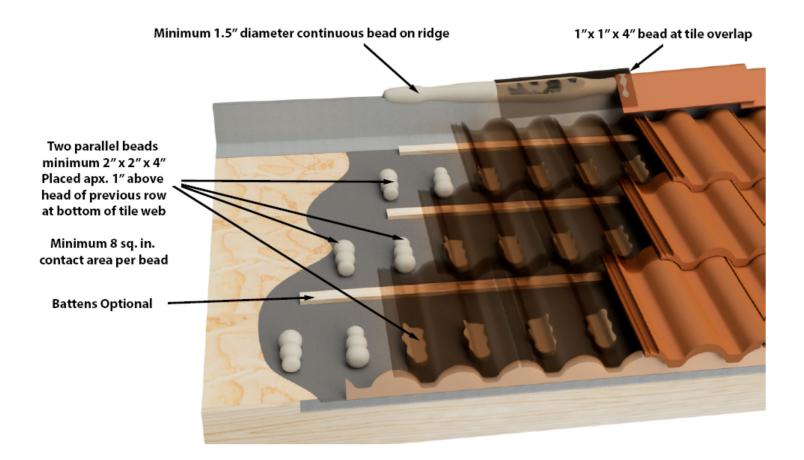




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# **DETAIL #4: MEDIUM PROFILE - INDEPENDENT PADDY PLACEMENT**

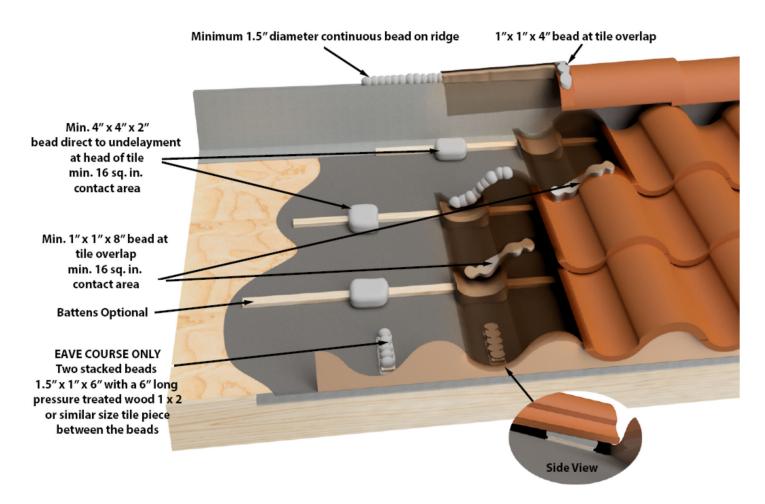




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# **DETAIL #5: HIGH PROFILE - INTERDEPENDENT PADDY PLACEMENT**





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# **DETAIL #6: HIGH PROFILE - INDEPENDENT PADDY PLACEMENT**

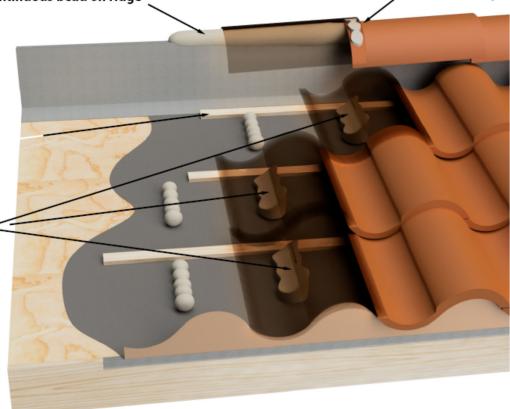
Minimum 1.5" diameter continuous bead on ridge

Minimum 1" x 1" x 4" bead at tile overlap

**Battens Optional** 

Two beads min. 1.5" diameter x 8"
Stacked at centerline of tile
Just below tile headlap
Minimum 15 sq. in. contact area

One bead placed on back of tile One bead placed on underlayment

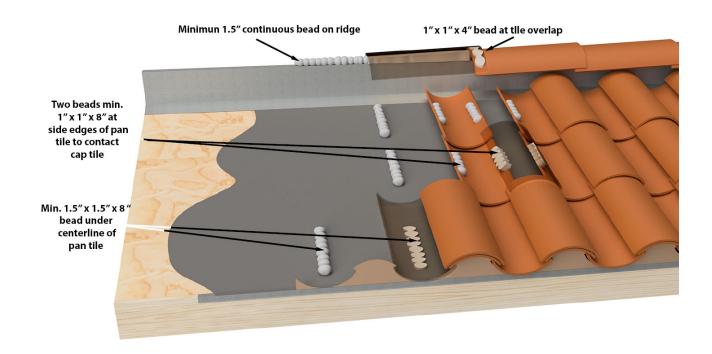




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# DETAIL # 7 TWO PIECE BARREL TILE - INTERDEPENDENT PADDY PLACEMENT



# **END OF THIS ACCEPTANCE**



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