MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
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Miami, Florida 33175-2474
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www.miamidade.gov/economy

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

NOTICE OF ACCEPTANCE (NOA)

ICP Construction Inc.
150 Dascomb Road
Andover, MA 01810

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: APOC® Polyset® AH-160

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# 22-0614.10 and consists of pages 1 through 12.
The submitted documentation was reviewed by Alex Tigera.

09/19/24

ROOFING COMPONENT APPROVAL:

Category: Roofing
Sub Category: Roof tile adhesive
Materials: Polyurethane

SCOPE:

This approves **APOC® Polyset® AH-160 (HFC), APOC® Polyset® AH-160 (HFO 1) and APOC® Polyset® AH-160 (HFO 2)** as manufactured by **ICP Construction, Inc.** as described in this Notice of Acceptance. For the locations where the design pressure requirements, as determined by applicable building code, do not exceed the design pressure values obtained by calculations in compliance with Roofing Application Standard RAS 127. For use with approved flat, low, and high profile roof tile systems using Polyset® AH-160.

PRODUCTS MANUFACTURED BY APPLICANT:

Product	Dimensions	Test Specifications	Product Description
APOC® Polyset®AH-160 (HFC) *(formerly known as Polyset®AH-160)*	N/A	TAS 101	Two component polyurethane foam adhesive
APOC® Polyset® AH-160 (HFO 1)	N/A	TAS 101	Two component polyurethane foam adhesive
APOC® Polyset® AH-160 (HFO 2)	N/A	TAS 101	Two component polyurethane foam adhesive
ICP Adhesives Foam Dispenser RTF1000	N/A		Dispensing Equipment
ICP Adhesives ProPack® 30 & 100	N/A		Dispensing Equipment

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 Polyset® AH-160 roof tile adhesive.

MANUFACTURING LOCATION:

1. Tomball, TX.

PHYSICAL PROPERTIES:

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

APOC® Polyset®AH-160 (HFC)

Property	Test	Results
Density @ 73ºF	ASTM D1622	2.1 lbs./ft.³
Compressive Strength	ASTM D1621	18 PSI Parallel to rise 14 PSI Perpendicular to rise
Tensile Strength	ASTM D1623	29 PSI Parallel to rise
Water Absorption	ASTM D2842	0%
Moisture Vapor Transmission	ASTM E96	2.3 Perms
Dimensional Stability	ASTM D2126	+0.07% Volume Change @ -40º F., 2 weeks +6.0% Volume Change @158ºF., 100% Humidity, 2 weeks
Closed Cell Content	ASTM D6226	94%

APOC® Polyset®AH-160 (HFO 1)

Property	Test	Results
Density @ 73ºF	ASTM D1622	2.5 lbs./ft.³
Compressive Strength	ASTM D1621	30 PSI Parallel to rise 21 PSI Perpendicular to rise
Tensile Strength	ASTM D1623	43 PSI Parallel to rise
Water Absorption	ASTM D2842	3%
Moisture Vapor Transmission	ASTM E96	2.7 Perms
Dimensional Stability	ASTM D2126	+0.00% Volume Change @ -40º F., 2 weeks +0.8% Volume Change @158ºF., 100% Humidity, 2 weeks
Closed Cell Content	ASTM D6226	91%

APOC® Polyset®AH-160 (HFO 2)

Property	Test	Results
Density @ 73ºF	ASTM D1622	2.5 lbs./ft.³
Compressive Strength	ASTM D1621	25 PSI Parallel to rise 19 PSI Perpendicular to rise
Tensile Strength	ASTM D1623	29 PSI Parallel to rise
Water Absorption	ASTM D2842	3%
Moisture Vapor Transmission	ASTM E96	3.0 Perms
Dimensional Stability	ASTM D2126	+0.00% Volume Change @ -40º F., 2 weeks +0.8% Volume Change @158ºF., 100% Humidity, 2 weeks
Closed Cell Content	ASTM D6226	95%

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Test Name/Report	Date
Center for Applied Engineering	#94-060	TAS 101	04/08/94
	257818-1PA	TAS 101	12/16/96
	25-7438-3	SSTD 11-93	10/25/95
	25-7438-4		
	25-7438-7	SSTD 11-93	11/02/95
	25-7492	SSTD 11-93	12/12/95
Miles Laboratories Polymers Division	NB-589-631	ASTM D 1623	02/01/94
Ramtech Laboratories, Inc.	9637-92	ASTM E 108	04/30/93
Southwest Research Institute	01-6743-011	ASTM E 108	11/16/94
	01-6739-062b[1]	ASTM E 84	01/16/95
Trinity Engineering	7050.02.96-1	TAS 114	03/14/96
	P36700.04.12	ASTM D 1623	04/18/12
	P39740.02.12	TAS 101	02/21/12
		TAS 123	
Celotex Corp. Testing Services	528454-2-1	TAS 101	10/23/98
	528454-9-1		
	528454-10-1		
	520109-1	TAS 101	12/28/98
	520109-2		
	520109-3		
	520109-6		
	520109-7		
	520191-1	TAS 101	03/02/99
	520109-2-1		
NEMO ETC, LLC	4p-ICP-20-SSLAP-01.B	Physical Properties	11/11/20
	4p-ICP-22-SSLAP-06.B-R1	Physical Properties	04/26/23

LIMITATIONS:

1. Fire classification is not part of this acceptance. Refer to the Prepared Roof Tile Assembly for fire rating.
2. APOC® Polyset® AH-160 (HFC), APOC® Polyset® AH-160 (HFO 1) and APOC® Polyset® AH-160 (HFO 2) shall solely be used with flat, low, & 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 APOC® Polyset® AH-160 (HFC), APOC® Polyset® AH-160 (HFO 1) and APOC® Polyset® AH-160 (HFO 2) roof tile adhesive with their tile assemblies shall test in accordance with TAS 101.
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.

INSTALLATION:

1. APOC® Polyset® AH-160 (HFC) may be used with any roof tile assembly having a current NOA that lists attachment resistance values with the use of Polyset® AH-160.
2. APOC® Polyset® AH-160 (HFC), APOC® Polyset® AH-160 (HFO 1) and APOC® Polyset® AH-160 (HFO 2) 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 APOC® Polyset® AH-160 (HFC), APOC® Polyset® AH-160 (HFO 1) and APOC® Polyset® AH-160 (HFO 2) 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. APOC® Polyset® AH-160 (HFC), APOC® Polyset® AH-160 (HFO 1) and APOC® Polyset® AH-160 (HFO 2) and its components shall be installed in accordance with Roofing Application Standard RAS 120, and ICP Construction, Inc.'s Operating Instruction and Maintenance Booklet.
4. Installation must be by a Factory Trained 'Qualified Applicator' approved and licensed by ICP Construction, Inc. ICP Construction, Inc. shall supply a list of approved applicators to the authority having jurisdiction.
5. Calibration of the ICP Adhesives Foam Dispenser RTF1000 dispensing equipment is required before application of any adhesive. The mix ratio between the "A" component and the "B" component shall be maintained between 1.0-1.15 (A): 1.0 (B).
6. APOC® Polyset® AH-160 (HFC), APOC® Polyset® AH-160 (HFO 1) and APOC® Polyset® AH-160 (HFO 2) shall be applied with ICP Adhesives Foam Dispenser RTF1000 or ICP Adhesives ProPack® 30 & 100 dispensing equipment only.
7. APOC® Polyset® AH-160 (HFC), APOC® Polyset® AH-160 (HFO 1) and APOC® Polyset® AH-160 (HFO 2) shall not be exposed permanently to sunlight.
8. Tiles must be adhered in freshly applied adhesive. Tile must be set within 1 to 2 minutes after APOC® Polyset® AH-160 (HFC), APOC® Polyset® AH-160 (HFO 1) and APOC® Polyset® AH-160 (HFO 2) has been dispensed.
9. APOC® Polyset® AH-160 (HFC), APOC® Polyset® AH-160 (HFO 1) and APOC® Polyset® AH-160 (HFO 2) placement and minimum patty weight shall be in accordance with the 'Placement Details' herein. Each generic tile profile requires the specific placement noted herein.

Table 1: Adhesive Placement For Each Generic Tile Profile			
Tile Profile	**Placement Detail**	**Minimum Paddy Contact Area**	**Minimum Paddy Gram Weight**
Eave Course - Flat, Low, High Profiles	**All Eave Course**	**17-23 sq. inches**	**45-65**
Flat, Low, High Profiles	#1	17-23 sq. inches	45-65
Flat Profile	#2	10-12 sq. inches	30
Low Profile	#2	12-14 sq. inches	30
High Profile	#2	17-19 sq. inches	30
Flat, Low, High Profiles	#3	Two Paddys: 8-9 sq. inches at head of tile 9-11 sq. inches at overlap	12 grams per paddy
Two-Piece Barrel (Cap Tile)	Two Piece	2 Beads (1 each longitudinal edge) 20-25 sq. inches each bead	17 grams per bead
Two Piece Barrel (Pan Tile)	Two Piece	65-70 sq. inches	34 grams under pan

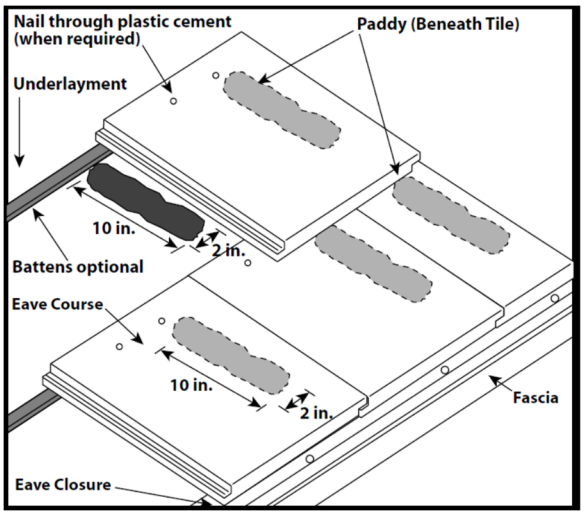
LABELING:

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.

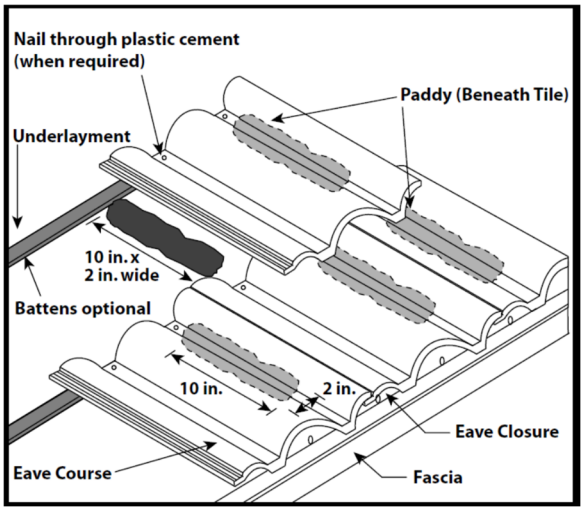
ADHESIVE PLACEMENT DETAIL # 1



Flat/Low Profile Tile

1. Starting at the eave course, apply a minimum 2" (50.8 mm) x 10" (254 mm) x 1" (25.4 mm) foam paddy onto the underlayment positioned as shown, under the strengthening rib closest to the overlock of the tile being set.

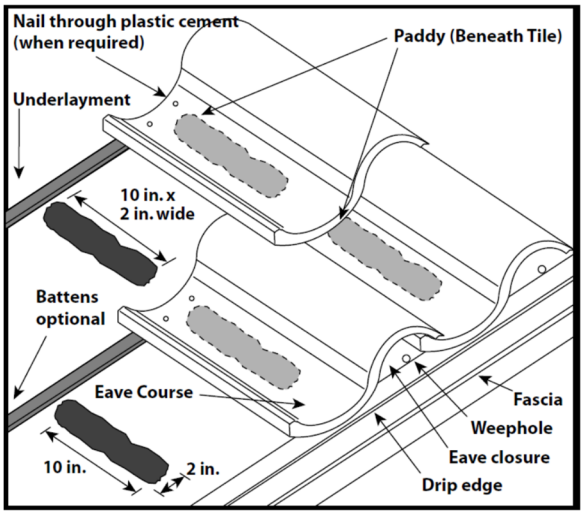
2. Continue in same manner. Insure approximately 17 (109.7 cm^2) – 23 (148.4 cm^2) square inch adhesive contact with the underside of the tile.



Medium Profile / Double Pan Tile

1. Starting at the eave course, apply a minimum 2" (50.8 mm) x 10" (254 mm) x 1" (25.4 mm) foam paddy onto the underlayment positioned as shown under the pan portion of the tile closest to the overlock of the tile being set.

2. Continue in same manner. Insure approximately 17 (109.7 cm^2) – 23 (148.4 cm^2) square inch adhesive contact with the underside of the tile.

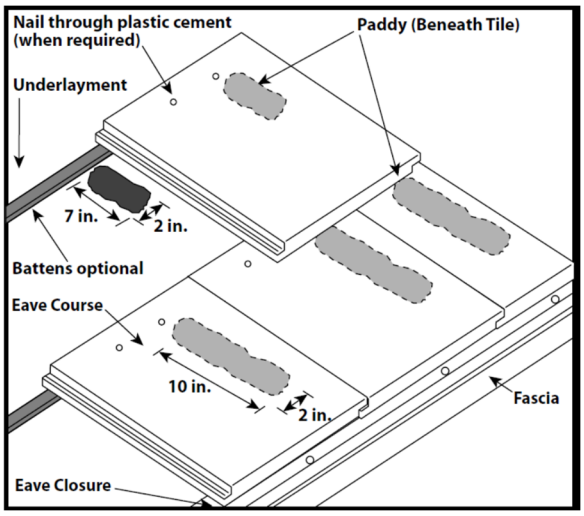


High Profile / Single Pan Tile

1. Starting at the eave course, apply a minimum 2" (50.8 mm) x 10" (254 mm) x 1" (25.4 mm) foam paddy onto the underlayment positioned as shown under the pan portion of the tile closest to the overlock of the tile being set.

2. Continue in same manner. Insure approximately 17 (109.7 cm^2) – 23 (148.4 cm^2) square inch adhesive contact with the underside of the tile.

ADHESIVE PLACEMENT DETAIL # 2

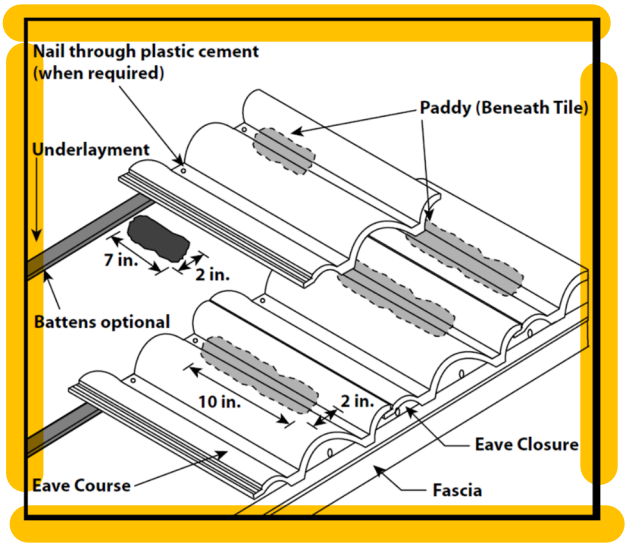


Flat/Low Profile Tile

1. Starting at the eave course, apply a minimum 2" (50.8 mm) x 10" (254 mm) x 1" (25.4 mm) foam paddy onto the underlayment positioned as shown under the strengthening rib of the tile closest to the overlock of the tile being set. Insure approximately 17 (109.7 cm^2) – 23 (148.4 cm^2) square inch adhesive contact with the underside of the tile.

2. At the second course, apply a minimum 2" (50.8mm) x 7" (177.8 mm) x 1" (25.4 mm) foam paddy onto the underlayment positioned as shown under the strengthening rib closest to the overlock of the tile being set.

3. Continue in same manner. Insure approximately 10" (64.5 cm^2) - 12 (77.4 cm^2) square inch adhesive contact with the underside of the tile.



Medium Profile / Double Pan Tile

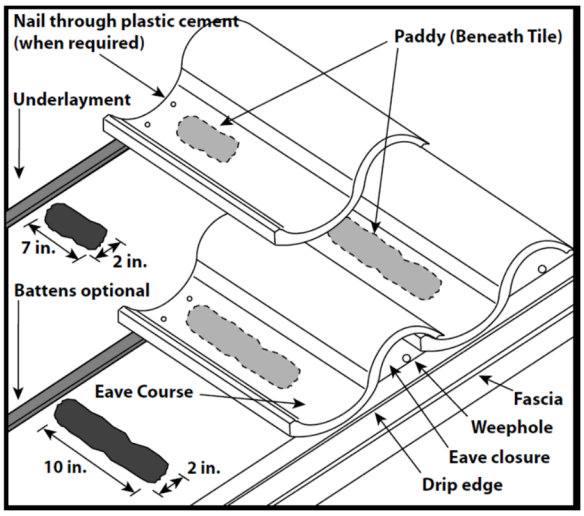
1. Starting at the eave course, apply a minimum 2" (50.8 mm) x 10" (254 mm) x 1" (25.4 mm) foam paddy onto the underlayment positioned as shown under the pan portion of the tile closest to the overlock of the tile being set. Insure approximately 17 (109.7 cm^2) – 23 (148.4 cm^2) square inch adhesive contact with the underside of the tile.

2. At the second course, apply a minimum 2" (50.8mm) x 7" (177.8 mm) x 1" (25.4 mm) foam paddy onto the underlayment positioned as shown under the pan portion of the tile closest to the overlock of the tile being set.

3. Continue in same manner. Insure approximately 12" (77.4 cm2) - 14 (90.3 cm^2) square inch adhesive contact with the underside of the tile.

(Instructions continued on next page)

ADHESIVE PLACEMENT DETAIL # 2 (CONTINUED)



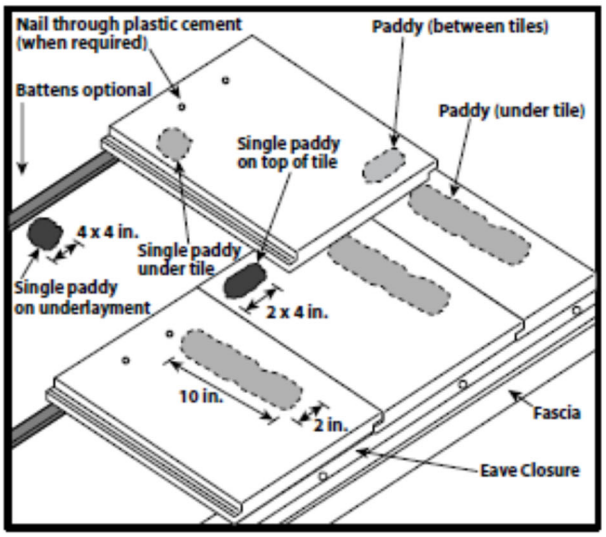
High Profile / Single Pan Tile

1. Starting at the eave course, apply a minimum 2” (50.8 mm) x 10” (254 mm) x 1” (25.4 mm) foam paddy onto the underlayment positioned as shown under the pan portion of the tile closest to the overlock of the tile being set. Insure approximately 17 (109.7 cm^2) – 23 (148.4 cm^2) square inch adhesive contact with the underside of the tile.

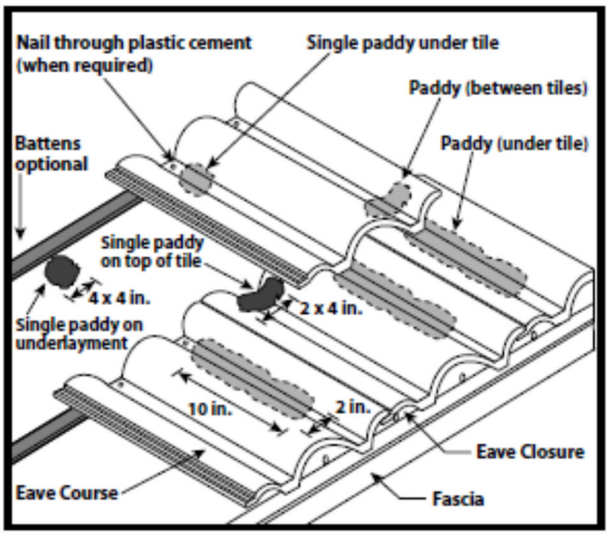
2. At the second course, apply a minimum 2” (50.8mm) x 7” (177.8 mm) x 1” (25.4 mm) foam paddy onto the underlayment positioned as shown under the pan portion of the tile closest to the overlock of the tile being set.

3. Continue in same manner. Insure approximately 17” (109.7 cm^2) - 19 (122.6 cm^2) square inch adhesive contact with the underside of the tile.

ADHESIVE PLACEMENT DETAIL # 3



Flat/Low Profile Tile



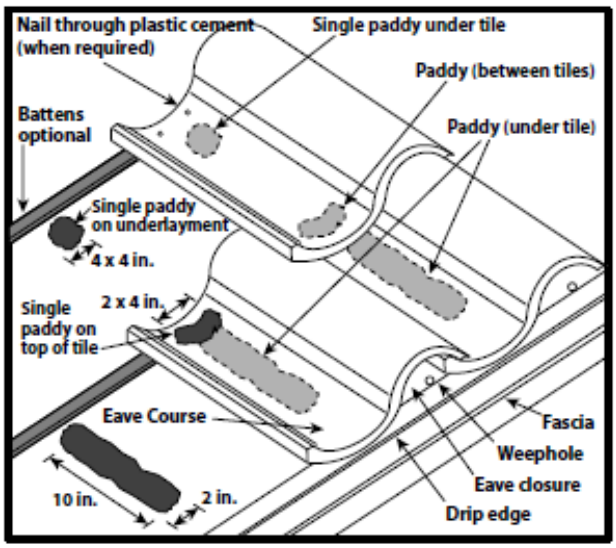
Medium Profile Tile

1. On the eave course only, apply a minimum 2" (50.8 mm) x 10" (254 mm) x 1" (25.4 mm) foam paddy onto the underlayment positioned as shown, under the strengthening rib for flat tile or under the pan portion of the tile for low or high profile tile closest to the overlock of the tile being set. Leave approximately 4" (101.6 mm) up from the eave edge free of foam to prevent the expanded adhesive from blocking the weep holes. Insure approximately 17-23 in^2 (109.7-148.4 cm^2) of adhesive contact with the underside of the tile

2. Apply a 4" (101.6 mm) x 4" (101.6 mm) x 1" (25.4 mm) foam paddy onto the underlayment just below the second course line positioned foam paddy under the strengthening rib for flat tile, or under the pan portion of the tile, closest to the underlock for the second course tile to be installed. Insure approximately 8-9 in^2 (51.6-58.1 cm^2) of adhesive contact with the underside of the tile.

(Instructions continued on next page)

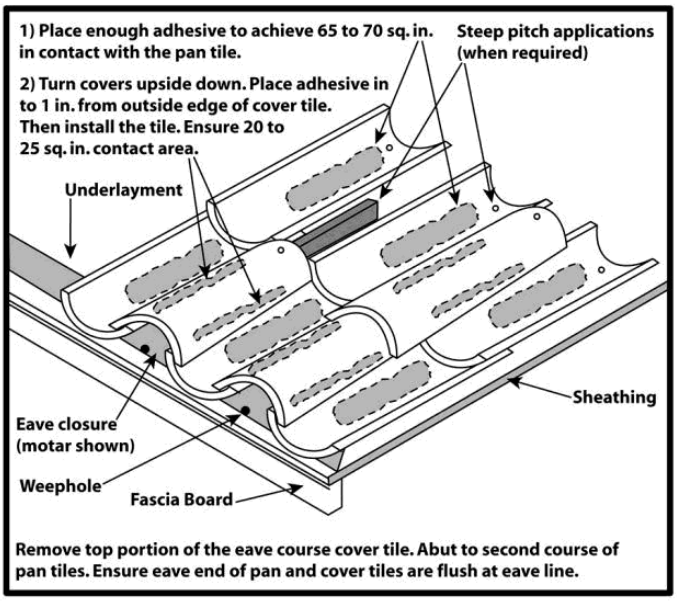
ADHESIVE PLACEMENT DETAIL # 3 (CONTINUED)



High Profile Tile

3. Also apply a 2" (50.8 mm) x 4" (101.6 mm) x ¾" (19 mm) paddy on top of the eave course tile surface as shown, on top of the strengthening rib for flat tile or on top of the pan portion of the tile, closest to the underlock of the first course of tile. Install second course of tile. Insure approximately 9 (58.1 cm^2) - 11 (71cm^2) square inch adhesive contact with the underside of the tile at the overlap and 7 (45.2 cm^2) - 9 (58.1 cm^2) square inch adhesive contact with the underside of the tile at the head of the tile. Continue in same manner.

ADHESIVE PLACEMENT DETAIL
TWO PIECE BARREL



Two Piece Barrel - High Profile Tile

Two Piece Barrel (Cap and Pan) Tile

1. Starting at the eave course, apply a minimum 2" (50.8 mm) x 10" (254 mm) x 1" (25.4 mm) foam paddy onto the underlayment positioned as shown under two adjacent pan tiles. Support eave tiles from rocking until adhesive has a chance to cure.

2. Continue in same manner bringing two pan courses up toward the ridge. Insure approximately 65 (419.4 cm^2) – 70 (451.6 cm^2) square inch adhesive contact with the underside of the pan tile.

3. Turn covers upside down exposing the underside of the tile. Apply a minimum 1" (25.4 mm) x 10" (254 mm) bead of adhesive directly on the inner edge of each side of the cover tile. Leave approximately 3/4" (19 mm) to 1" (25.4 mm) from the outside edge of the tile, inward, free of foam to allow for expansion.

4. Turn cover tile over after foam is applied and place onto pan tile course. Insure a minimum of 20 (129 cm^2) - 25 (161.3 cm^2) square inch contact area on each side of the cover tile to the pan tile. Continue in same manner. Trim away any cured exposed foam adhesive. Pointing of longitudinal edges of the cover tiles are considered optional.

5. When additional nailing is required, 2" (50.8 mm) x 4" (101.6 mm) nailers or the tie wire system using galvanized, stainless steel, or copper wire and compatible nails may be used.

END OF THIS ACCEPTANCE