



## **Aerial Photo**

Existing Clubhouse

b) Deering Bay Yacht & Country Club – 13610 Deering Bay Dr, Coral Gables, FL 33158







## **Exterior Photos**

Existing Clubhouse



AERIAL KEY MAP



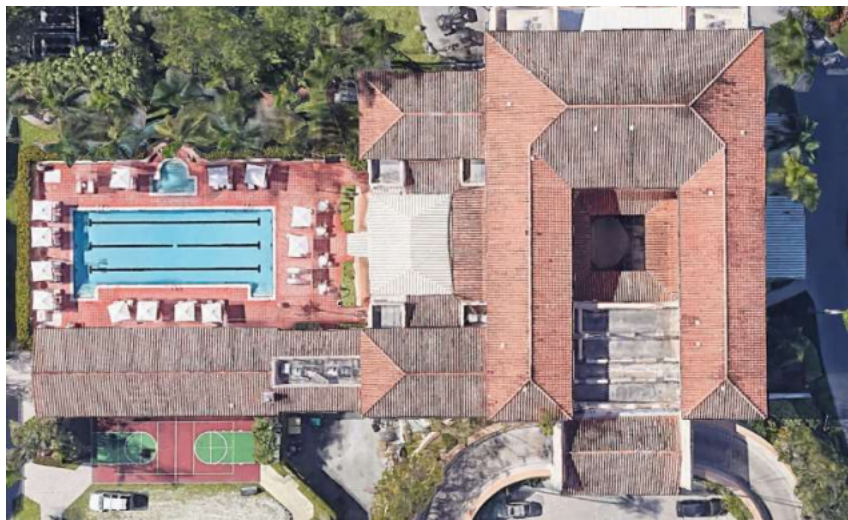




AERIAL KEY MAP



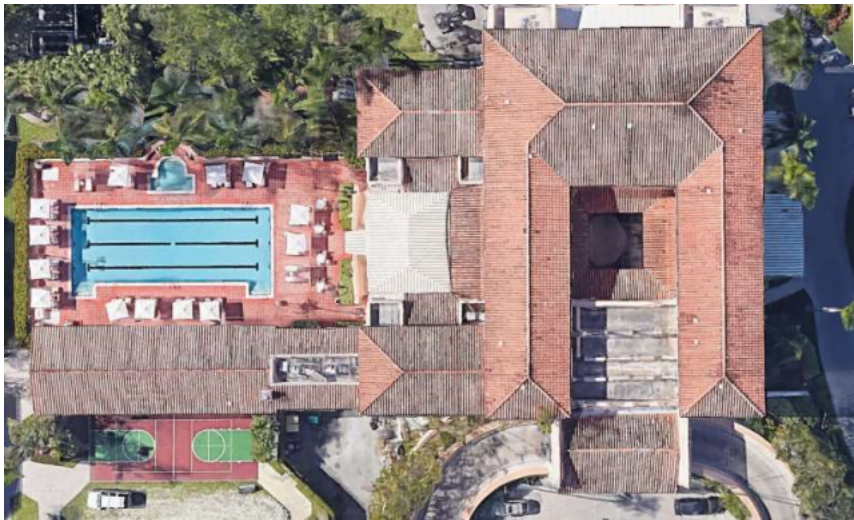




AERIAL KEY MAP







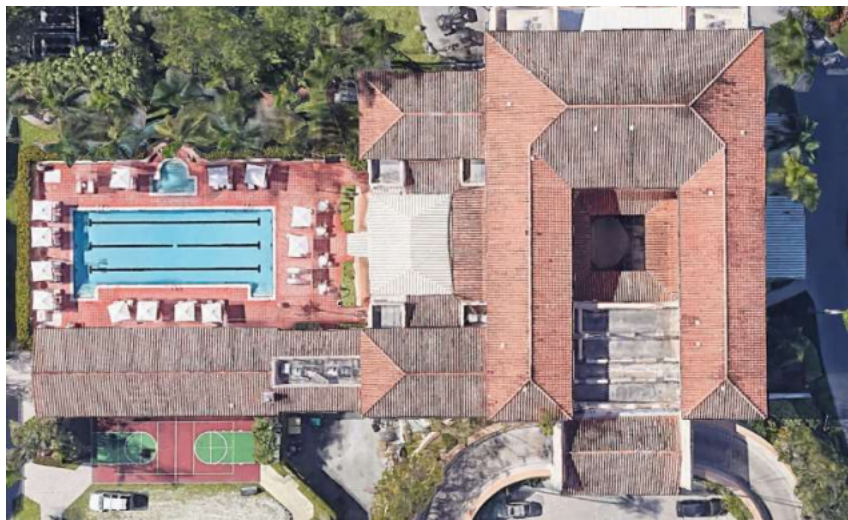
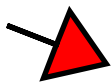
AERIAL KEY MAP





AERIAL KEY MAP





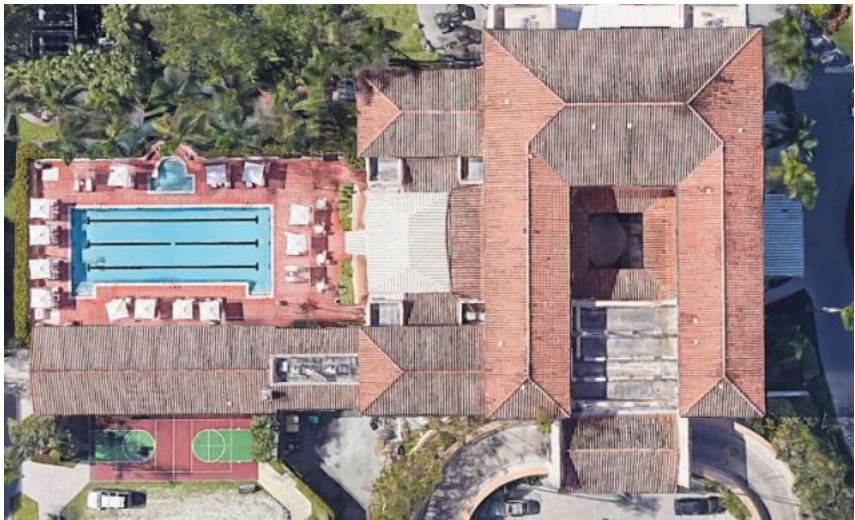
AERIAL KEY MAP





AERIAL KEY MAP





AERIAL KEY MAP





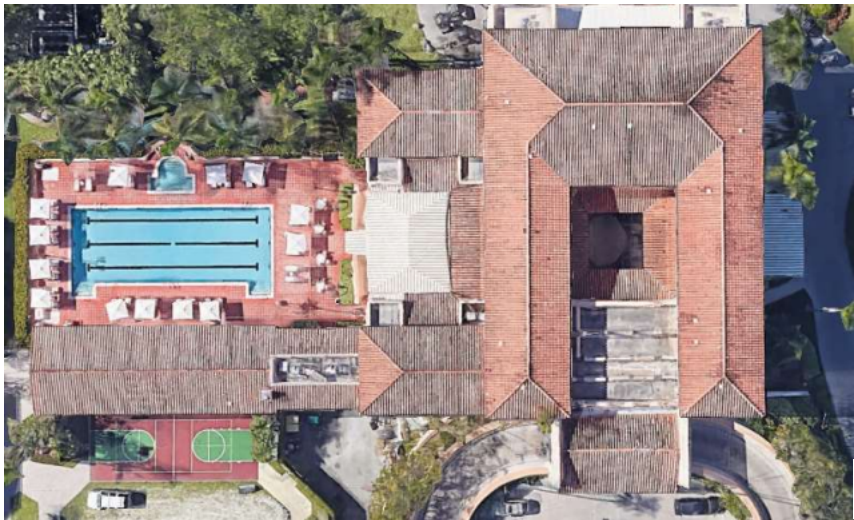
AERIAL KEY MAP





AERIAL KEY MAP





AERIAL KEY MAP



## **Tile Sample Photo**

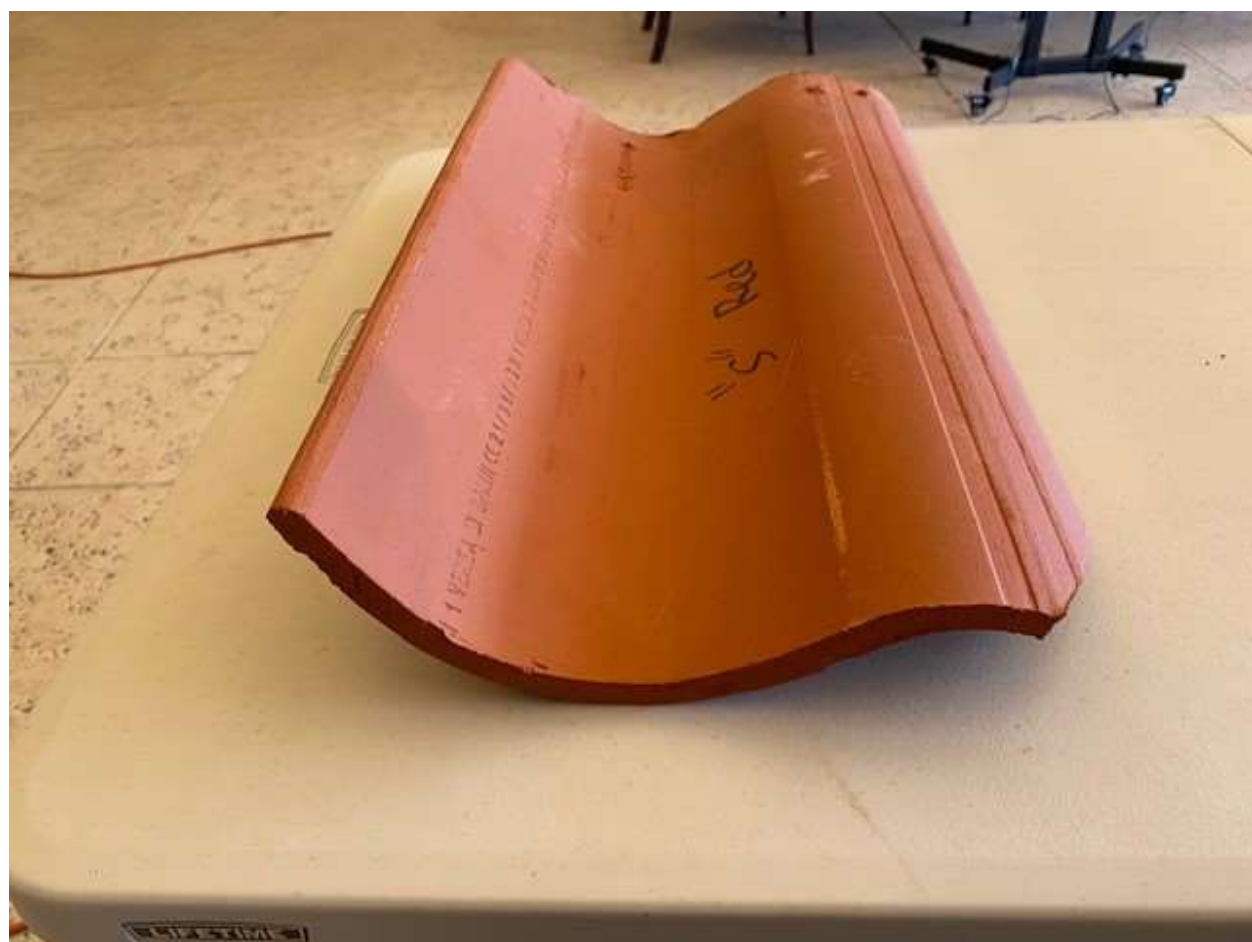
Verea "Spanish S" Grade 1















# **Aerial Photos of Existing Structures**

## **with Verea “Spanish S” Grade 1**

Milano At Deering Bay – 13611 Deering Bay Dr, Coral Gables, FL 33158

Siena At Deering Bay Condominium – 13611 Deering Bay Dr, Coral Gables, FL 33158

Verona At Deering Bay Condo – 13627 Deering Bay Dr, Coral Gables, FL 33158





c) Milano At Deering Bay – 13611 Deering Bay Dr, Coral Gables, FL 33158





d) Siena At Deering Bay Condominium – 13611 Deering Bay Dr, Coral Gables, FL 33158



e) Verona At Deering Bay Condo – 13627 Deering Bay Dr, Coral Gables, FL 33158



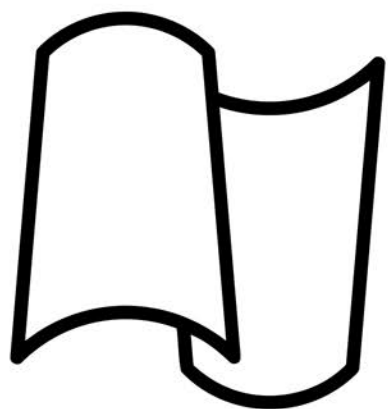


# **Manufacturer Brochure**

Verea | Clay Roof Tile

“Spanish S”





Clay Roof Tile  
**Verea**

since 1967

SPRING 2021



[www.VereaClayTile.com](http://www.VereaClayTile.com)



# THE VEREA DIFFERENCE



## **LIFETIME WARRANTY**

We offer a lifetime warranty free of charge.



## **COLOR PERMANENCE**

Our products are ASTM GRADE 1 and offer unparalleled color permanence and are guaranteed to not discolor or fade over time.



## **MILDEW RESISTANCE**

Our tile is known to be very mildew resistant due to our superior clay and our state-of-the-art manufacturing process.



## **INSULATING**

Clay tile is an excellent thermal insulator and is a much cooler system than shingle, slate, concrete roof tile, or metal roofing.



## **DURABILITY**

Our tile are known to be among the hardest in the industry. Our traverse breaking strength tests results often exceed industry requirements by over 300%.



## **SUSTAINABILITY**

Our tiles are natural products made of high grade clay and water, which are inert and harmless to the environment.



## **LOWEST BREAKAGE**

Packaging is one of our core competencies and we are well known to have the lowest breakage in the entire roof tile industry.

*Verea Clay Roof Tile combines old-world craftsmanship with twenty-first century technology to bring to market the highest quality and greatest value in roof tile.*

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# SPANISH S ROOF TILE

Our Spanish S offers the look of a cap and pan system in a one piece tile that is easy to install.



JACOBEA



SANTIAGO



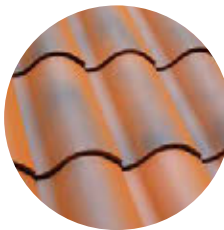
CAPCANA



AÑEJA



VINTAGE



FUME

PRE-BLENDS



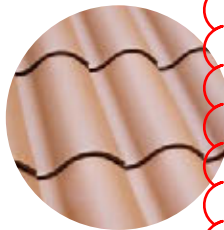
GRAPHITE



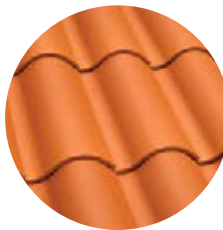
BROWN



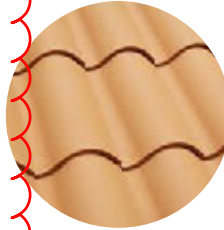
MOCHA



OHIO RED



RED



PEACH

AGED REDS

INDIVIDUAL COLORS

# BARREL ROOF TILE

Also known as cap and pan or two piece mission. This millenia old profile is the one most often associated with clay tile.



JACOBEA



SANTIAGO



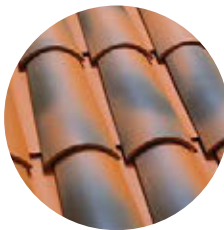
CAPCANA



AÑEJA



VINTAGE



FUME

PRE-BLENDS

AGED REDS



GRAPHITE



BROWN



OHIO RED



RED



PEACH

INDIVIDUAL COLORS

# FLAT ROOF TILE

Our interlocking flat tile is a lightweight, Grade 1 roof tile that fits a wide range of architectural styles.



RED



GRAPHITE



SLATE



SLATE TXT



WHITE

INDIVIDUAL COLORS

# CARIBBEAN S ROOF TILE

This alternate S profile is generally used for repairs or additions to roofs done with other manufacturer’s tile.



RED

# TILE SPECIFICATIONS

TILE PROFILE	LENGTH	WIDTH	WEIGHT /UNIT	PIECES /PALLET	SQ. /PALLET	WEIGHT /PALLET	TILES /SQUARE	WEIGHT /SQUARE	MIAMI-DADE NOA	FL APPROVAL #
SPANISH S	19.5 in.	11 in.	7.8 lbs.	378	4.3	2,963 lbs.	88 pcs.	686 lbs.	20-0902.02	FL17152-R4
BARREL	19.5 in.	8.25 in.	5.6 lbs.	432	2.8	2,435 lbs.	154 pcs.	862 lbs.	20-0902.03	FL17152-R4
FLAT	15.75 in.	10 in.	6.4 lbs.	344	2.8	2,225 lbs.	123 pcs.	794 lbs.	19-0513.08	FL17152-R4
CARIBBEAN S	18.75 in.	10.75 in.	6.5 lbs.	378	3.9	2,472 lbs.	97 pcs.	630 lbs.	20-0902.01	N/A



## LIFE TIME WARRANTY

All Verea roof tile come with a LIFETIME WARRANTY. Our products offer unparalleled color permanence and are GUARANTEED to not discolor or fade over time. Enjoy the peace of mind of knowing that your roof will maintain the same appearance for the entirety of it’s service life.



# JACOBEA

Our most popular preblend, Jacobea features aged browns, aged reds, and aged buff.

*Available in: Spanish S or Barrel (COVERS ONLY)*  
*Recommended Pans: Red, Ohio Red or Brown*





# SANTIAGO

This is our darkest preblend and is made to mimic the centuries old roofs seen along the “Camino de Santiago” in Spain.

*Available in:* Spanish S or Barrel (COVERS ONLY)

*Recommended Pans:* Brown or Graphite





# CAPCANA

This is a Jacobea variant with no brown.

*Available in: Spanish S or Barrel (COVERS ONLY)*  
*Recommended Pans: Red or Ohio Red*





# AÑEJA

This aged red has a texture that mimics lichens giving your roof a decades old look.

*Available in:* Spanish S or Barrel (COVERS ONLY)  
*Recommended Pans:* Red or Ohio Red





# VINTAGE

Our most popular aged red. This color shows like a range of reds.

*Available in:* Spanish S or Barrel (COVERS ONLY)  
*Recommended Pans:* Red, Ohio Red or Brown





# FUME

An aged red that shows like weathered terracotta.

*Available in: Spanish S, Barrel (COVERS ONLY)  
Recommended Pans: Red or Ohio Red*





# GRAPHITE

One of our best sellers, this is a color through dark brown.

*Available in:*  
Spanish S or Barrel (Covers and Pans)





# BROWN

Brown is a color through product often used in blends, although it is striking by itself.

*Available in:*  
Spanish S or Barrel (Covers and Pans)





# MOCHA

Mocha is a coffee like brown sprayed on our base brown tile.

*Available in:*  
Spanish S or Barrel





# OHIO RED

Ohio Red, is our newest color through tile. It is less “orange” than our base red and falls in between red and brown.

*Available in:*  
Spanish S or Barrel (Covers and Pans)





# RED

Red, or Terracotta is a color synonymous with clay. This is our base color and is a color through product.

*Available in:*  
Spanish S or Barrel (Covers and Pans)





# PEACH

Sprayed on our base red, this color is often used in high contrast blends.

*Available in:*  
Spanish S or Barrel (Covers and Pans)





# CUSTOM BLENDS



**Barrel**

Covers: 40% Red, 30% Ohio Red, 30% Vintage  
Pans: 100% Red



**Barrel**

Covers: 70% Vintage, 30% Añeja  
Pans: 50% Red, 50% Brown



**Spanish S & Barrel**

33% Red, 33% Brown, 33% Vintage



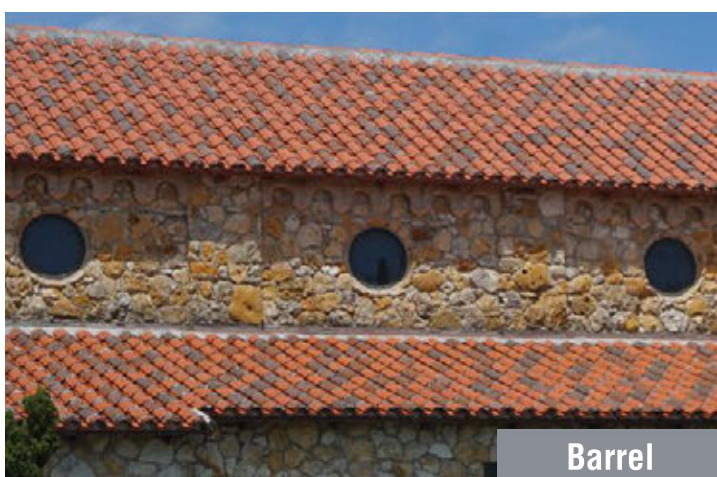
**Spanish S**

33% Graphite, 33% Brown, 33% Mocha



**Barrel**

Covers: 25% Red, 25% Brown, 25% Graphite, 25% Vintage  
Pans: 33% Red, 33% Brown, 33% Graphite



**Barrel**

Covers: 60% Red, 20% Brown, 10% Fume, 10% Graphite  
Pans: 100% Red



With 12 distinct color options and your imagination, almost any color group is attainable.

*Available in:*  
Spanish S or Barrel



Covers: 80% Graphite, 20% Fume  
Pans: 100% Graphite



Covers: 67% Graphite, 33% Brown  
Pans: 67% Graphite, 33% Brown



33% Graphite, 33% Brown, 33% Vintage



33% Red, 33% Brown, 33% Vintage



Covers: 25% Red, 25% Brown, 25% Graphite,  
25% Vintage  
Pans: 33% Red, 33% Brown, 33% Graphite



Covers: 50% Red, 25% Brown, 25% Fume  
Pans: 100% Red



# FLAT TILE

Our interlocking flat tile is a lightweight, Grade 1 roof tile that fits a wide range of architectural styles.







RED



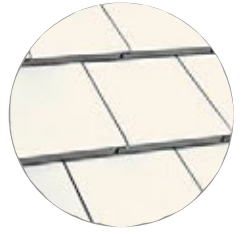
GRAPHITE



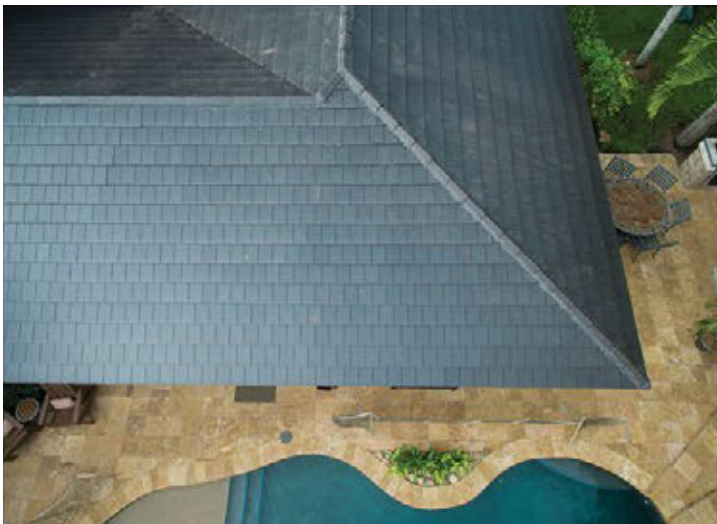
SLATE



SLATE TEXTURE

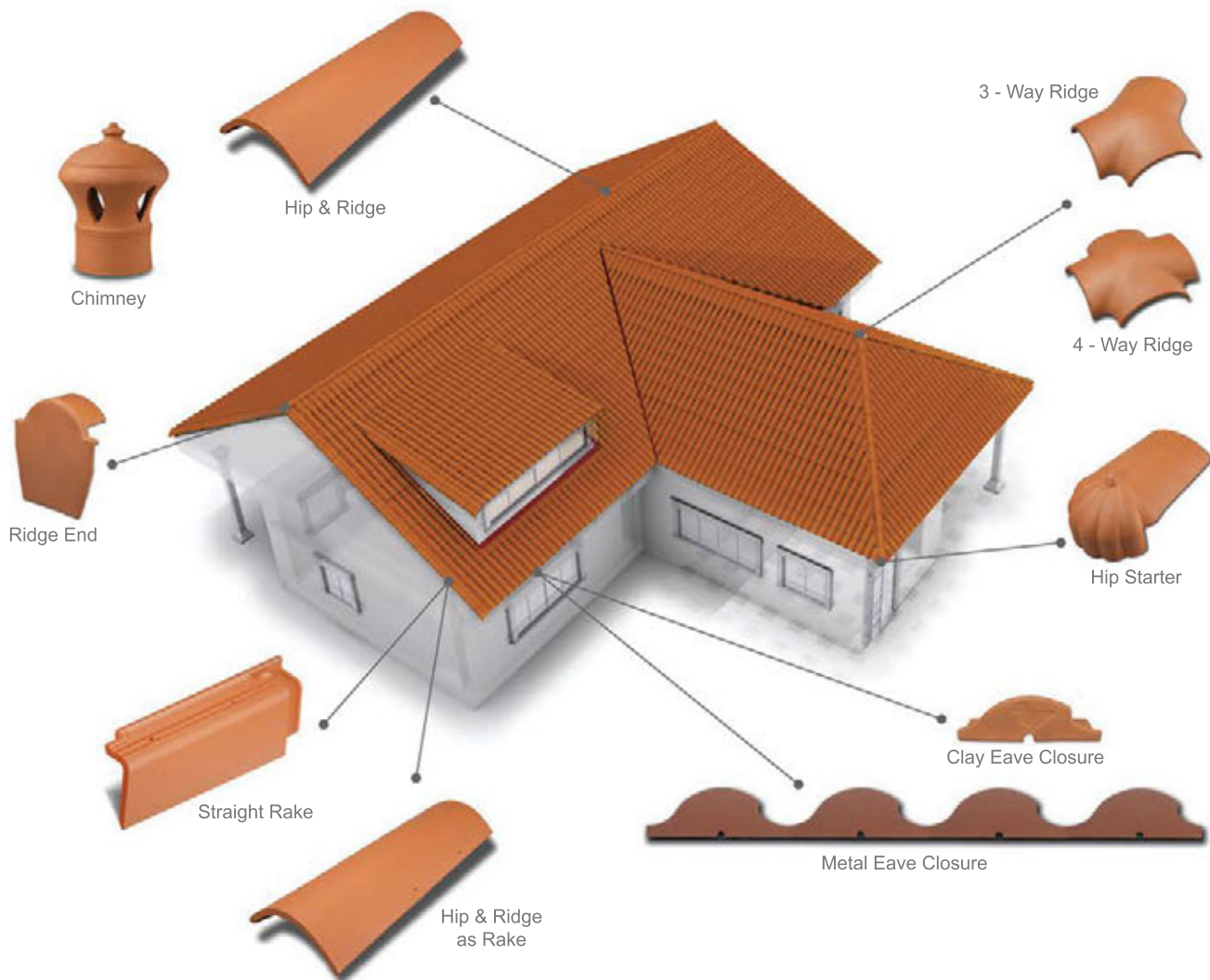


WHITE





# ACCESSORIES











TILE PROFILE	MIAMI-DADE NOA	FL APPROVAL #
SPANISH S	20-0902.02	FL17152-R4
BARREL	20-0902.03	FL17152-R4
FLAT	19-0513.08	FL17152-R4
CARIBBEAN S	20-0902.01	N/A

Find us on Instagram:



@vereaclayrooftile

Phone: 786-641-9154  
 Email: info@vereaclaytile.com  
 Website: www.vereaclaytile.com  
 In Europe: www.tejasverea.com

7275 NW 61<sup>st</sup> Street  
 Miami, FL 33166 USA

[www.VereaClayTile.com](http://www.VereaClayTile.com)





# **Miami-Dade County NOA**

Verea "Spanish S" Grade 1

NOA No.:20-0902.02





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](http://www.miamidade.gov/economy)

## NOTICE OF ACCEPTANCE (NOA)

Tejas Vereas, S.A.  
Lanza S/N 15685  
Mesia (Coruña) Spain

### 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: Vereas "Spanish S" Grade 1

**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# 19-0513.06 and consists of pages 1 through 8.  
The submitted documentation was reviewed by *Freddy Semino*



NOA No.: 20-0902.02  
Expiration Date: 03/13/23  
Approval Date: 12/31/20  
Page 1 of 8



## ROOFING ASSEMBLY APPROVAL

**Category:** Roofing  
**Sub Category:** Roofing Tiles  
**Material:** Clay

### 1. SCOPE

This approves a roofing system using Verea “Spanish S” Grade 1 manufactured by Tejas Verea, S.A. in La Coruna, Spain and is distributed by *Ceramica Verea, USA Corp.*, as 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</u> <u>Applicant</u>	<u>Dimensions</u>	<u>Test</u> <u>Specifications</u>	<u>Product</u> <u>Description</u>
Verea “Spanish S” Grade 1	L = 19.5” W = 10.85” H = 2.8”	ASTM C1167 Type I Grade 1	High profile clay roof tile. For direct deck, adhesive set applications.
Trim Pieces	Length: varies Width: varies varying thickness	ASTM C1167	Accessory trim, clay roof pieces for use at hips, rakes, ridges and valley terminations manufactured for each tile profile.
Verea Hurricane Clip	2.95” x 0.47” x 0.09” diam.		(Optional) stainless steel clip.

### 2.1 MANUFACTURING LOCATION

#### 2.1.1. Mesia (La Coruña) Spain



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## 2.2 EVIDENCE SUBMITTED

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Test Name/Report</u>	<u>Date</u>
American Test Lab of South Florida	RT0202.02-18	ASTM C 1167	02/10/18
	RT0621.01-16	ASTM C 1167	09/09/16
	RT0311.01-14	TAS 101	03/18/14
	RT0609.01-20	TAS 101	06/12/20
	RT0616.01-20	ASTM C 1167	06/23/20
IBA Consultants, Inc.	4709-3	TAS 101	12/21/07
PRI Construction Materials Technologies	CVER-013-02-01	TAS 101	12/30/13
	CVER-014-02-01	TAS 102	03/11/14
	CVER-015-02-01	TAS 100	04/07/14
Redland Technologies	7161-03 Appendix III P0402	PA 102 & PA 102(A)	Dec. 1991
		Withdrawal Resistance Testing of screw vs. smooth shank nails	Sept. 1993
The Center for Applied Engineering, Inc.	25-7094-(3, 6 & 9)	PA 102	Oct. 1994
	25-7120-(1 & 2)	PA 102	Nov. 1994
	25-7183-(3 & 4)	PA 102	Feb. 1995
	25-7214-(3, 4, & 7)	PA 102	March, 1995
	25-7804-4	PA 102	Sep. 1996





### 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 in accordance with TAS 106 may required, refer to applicable building code.
- 3.3 Applicant shall retain the services of a Miami-Dade County Certified Laboratory to perform quarterly test in accordance with TAS 112, appendix 'A'. Such testing shall be submitted to the Regulatory and Economic Development Department – Product Control Section for review.
- 3.4 Minimum underlayment 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 applicable building code.

### 4. INSTALLATION

- 4.1 Verea "Spanish S" Grade 1 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)
Verea "Spanish S" Grade 1	8.0	1.625	0.904

**Table 2: Aerodynamic Multipliers -  $\lambda$  (ft<sup>3</sup>)**

Tile Profile	$\lambda$ (ft <sup>3</sup> ) Batten Application	$\lambda$ (ft <sup>3</sup> ) Direct Deck Application
Verea "Spanish S" Grade 1	N/A	0.31

**Table 3: Restoring Moments due to Gravity -  $M_g$  (ft-lbf)**

Tile Profile	2":12"	3":12"	4":12"	5":12"	6":12"	7":12" or Greater
Verea "Spanish S" Grade 1	Direct Deck 6.46	Direct Deck 6.36	Direct Deck 6.21	Direct Deck 6.01	Direct Deck 5.74	Direct Deck 5.40



**Table 4: Attachment Resistance Expressed as a Moment -  $M_r$  (ft-lbf)  
for Mechanically Attached Systems**

Tile Profile	Fastener Type	Direct Deck (min 15/32" plywood)	Direct Deck (min. 19/32" plywood)	Battens
Verea "Spanish S" Grade 1	2-10d Ring Shank Nails	28.6	41.2	n/a
	1-10d Smooth or Screw Shank Nail	5.1	6.8	n/a
	2-10d Smooth or Screw Shank Nails	6.9	9.2	n/a
	1 #8 Screw	20.7	20.7	n/a
	2 #8 Screw	43.2	43.2	n/a
	1-10d Smooth or Screw Shank Nail (Field Clip)	23.1	23.1	n/a
	1-10d Smooth or Screw Shank Nail (Eave Clip)	29.3	29.3	n/a
	2-10d Smooth or Screw Shank Nails (Field Clip)	27.6	27.6	n/a
	2-10d Smooth or Screw Shank Nails (Eave Clip)	38.1	38.1	n/a

**Table 5: Attachment Resistance Expressed as a Moment -  $M_r$  (ft-lbf)  
for Mechanically Attached Systems**

Tile Profile	Fastener Type	Direct Deck (min 15/32" plywood)	Direct Deck (min. 19/32" plywood)	Battens
Verea "Spanish S" Grade 1	2-10d Ring Shank Nails <sup>1</sup>	33.1	48.1	n/a

<sup>1</sup> Installation with a 4" tile headlap and fasteners are located a min. of 2½" from head of tile.

**Table 6: Attachment Resistance Expressed as a Moment -  $M_r$  (ft-lbf)  
for Single Patty Adhesive Set Systems**

Tile Profile	Tile Application	Minimum Attachment Resistance
Verea "Spanish S" Grade 1	ICP Adhesives Polyset AH-160	63.212 <sup>1</sup>
	ICP Adhesives Polyset AH-160	58.6 <sup>2</sup>
	TILE BOND Roof Tile Adhesive	53.9 <sup>3</sup>
1	Large paddy placement weight 34.6 grams of ICP Adhesives and Sealants, Inc.'s ICP Adhesives Polyset AH-160.	
2	Medium paddy placement weight 24.5 grams of ICP Adhesives and Sealants, Inc.'s ICP Adhesives Polyset AH-160	
3	Large paddy placement weight 27.5 grams of Tile Bond Roof Tile Adhesive	



## **5. LABELING**

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

# **VEREA SPAIN CE**

**LABEL FOR VERA "SPANISH S" GRADE 1  
(LOCATED ON THE SIDE OF TILE)**

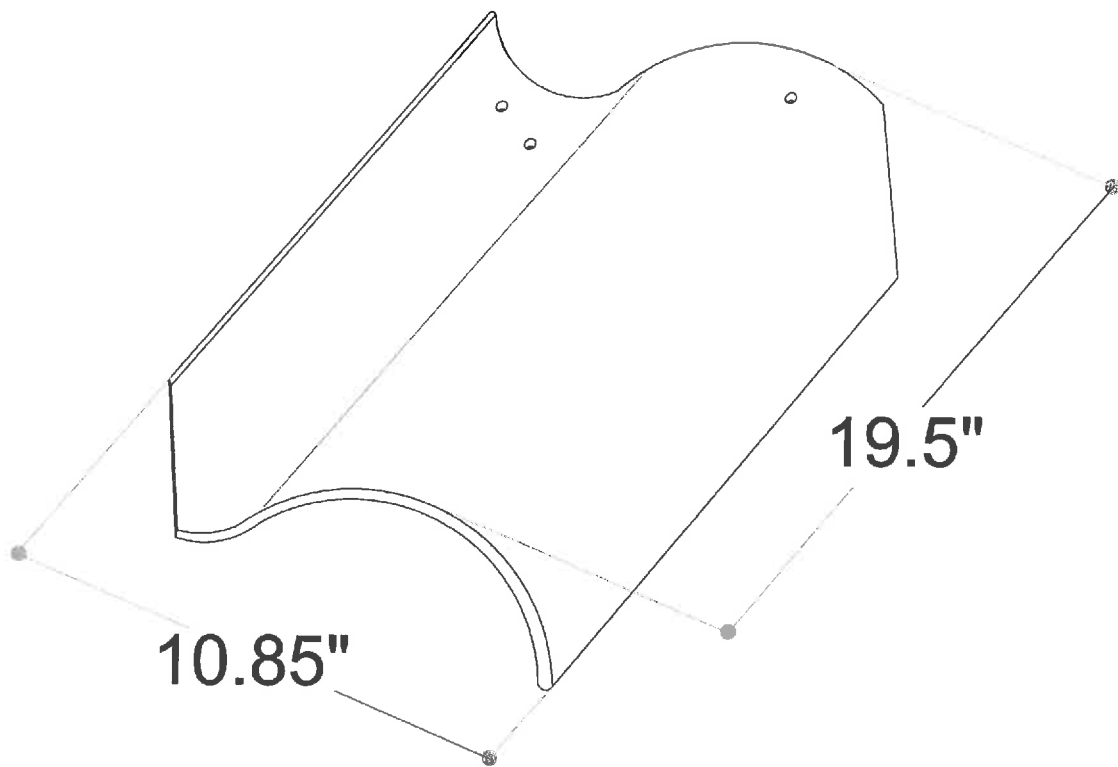
## **6. BUILDING PERMIT REQUIREMENTS:**

- 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 Building Official or Applicable building code in order to properly evaluate the installation of this system.



**NOA No.: 20-0902.02**  
**Expiration Date: 03/13/23**  
**Approval Date: 12/31/20**  
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**VEREA "SPANISH S" GRADE 1**



**VEREA HURRICANE CLIP**

***NOTE: USE OF CLIP IS OPTIONAL. REFER TO MANUFACTURERS PUBLISHED INSTRUCTIONS FOR INSTALLATION DETAIL***

**END OF THIS ACCEPTANCE**



## GREEN SUSTAINABLE ATTRIBUTES (GSA)

**SCOPE:** This document is solely for the purpose of verification of Sustainable Attributes of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Section.

### G.1 - SOLAR REFLECTANCE AND THERMAL EMITTANCE

<u>Component Name</u>	<u>Initial Reflectance</u>	<u>Aged Reflectance</u>	<u>Initial Emittance</u>	<u>Aged Emittance</u>	<u>Solar Reflectance Index (SRI)</u>
1. Verea "Spanish S" Clay Roof Tile Grade 1	0.39	Pending	0.83	Pending	41

### G.2 - THERMAL RESISTANCE

<u>R-Value</u>	<u>Insulation / Thickness</u>	<u>Assemblies:</u>
2.09	0.46	Verea "Spanish S" Clay Roof Tile Grade 1

### G.3 - LOW VOC COMPONENTS

<u>Component Name</u>	<u>Content</u>	<u>Emission</u>
1. Verea "Spanish S" Clay Roof Tile Grade 1	0% COV's	0%

### G.4 - RECYCLED CONTENT / BIO-BASED MATERIAL / RAPIDLY RENEWABLE MATERIAL

<u>Component Name</u>	<u>% Recycled Content at Manuf.</u>	<u>% Recycled at Disposal</u>	<u>% Bio-based Material</u>	<u>% Renewable Material</u>
1. Verea "Spanish S" Clay Roof Tile Grade 1	20%			100%

### G.6 - ROOF SYSTEM LIFE CYCLE

<u>Years</u>	<u>Assemblies:</u>
150	Verea "Spanish S" Clay Roof Tile Grade 1

### G.7 - REGIONALLY MANUFACTURED COMPONENTS

<u>Component Name</u>	<u>Manufacturing Location</u>
1. Verea "Spanish S" Clay Roof Tile Grade 1	Quarry-Crucero 22 Frades; quartz extracted in surrounding councils Mesía/Frades (La Coruña)- Spain. Local extraction less than 5 km





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

## NOTICE OF ACCEPTANCE (NOA)

**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](http://www.miamidade.gov/economy)

**ICP Adhesives and Sealants, Inc.**  
12505 NW 44<sup>th</sup> Street  
Coral Springs, FL. 33065

### 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: ICP Adhesives 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 renews NOA 16-0315.01 and consists of pages 1 through 11.  
The submitted documentation was reviewed by Alex Tigera.



**NOA No.: 17-0322.03**  
**Expiration Date: 05/10/22**  
**Approval Date: 04/27/17**  
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## ROOFING COMPONENT APPROVAL:

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

### SCOPE:

This approves **ICP Adhesives Polyset® AH-160** as manufactured by **ICP Adhesives and Sealants, 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 ICP Adhesives Polyset® AH-160.

### PRODUCTS MANUFACTURED BY APPLICANT:

<u>Product</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
ICP Adhesives Polyset® AH-160	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 ICP Adhesives Polyset® AH-160 roof tile adhesive.

### MANUFACTURING LOCATION:

1. Tomball, TX.

### PHYSICAL PROPERTIES:

<u>Property</u>	<u>Test</u>	<u>Results</u>
Density	ASTM D 1622	1.6 lbs./ft. <sup>3</sup>
Compressive Strength	ASTM D 1621	18 PSI Parallel to rise 12 PSI Perpendicular to rise
Tensile Strength	ASTM D 1623	28 PSI Parallel to rise
Water Absorption	ASTM D 2127	0.08 Lbs./Ft <sup>2</sup>
Moisture Vapor Transmission	ASTM E 96	3.1 Perm / Inch
Dimensional Stability	ASTM D 2126	+0.07% Volume Change @ -40° F., 2 weeks +6.0% Volume Change @ 158°F., 100% Humidity, 2 weeks
Closed Cell Content	ASTM D 2856	86%

**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.



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**EVIDENCE SUBMITTED:**

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Test Name/Report</u>	<u>Date</u>
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		

**LIMITATIONS:**

1. Fire classification is not part of this acceptance. Refer to the Prepared Roof Tile Assembly for fire rating.
2. ICP Adhesives Polyset® AH-160 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 ICP Adhesives Polyset® AH-160 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.



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## **INSTALLATION:**

1. ICP Adhesives Polyset® AH-160 may be used with any roof tile assembly having a current NOA that lists attachment resistance values with the use of ICP Adhesives Polyset® AH-160.
2. ICP Adhesives Polyset® AH-160 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 ICP Adhesives Polyset® AH-160 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. ICP Adhesives Polyset® AH-160 and its components shall be installed in accordance with Roofing Application Standard RAS 120, and ICP Adhesives and Sealants, Inc.'s Operating Instruction and Maintenance Booklet.
4. Installation must be by a Factory Trained 'Qualified Applicator' approved and licensed by ICP Adhesives and Sealants, Inc. ICP Adhesives and Sealants, 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. ICP Adhesives Polyset® AH-160 shall be applied with ICP Adhesives Foam Dispenser RTF1000 or ICP Adhesives ProPack® 30 & 100 dispensing equipment only.
7. ICP Adhesives Polyset® AH-160 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 ICP Adhesives Polyset® AH-160 has been dispensed.
9. ICP Adhesives Polyset® AH-160 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**

<b>Tile Profile</b>	<b>Placement Detail</b>	<b>Minimum Paddy Contact Area</b>	<b>Minimum Paddy Gram Weight</b>
<b>Eave Course - Flat, Low, High Profiles</b>	<b>All Eave Course</b>	<b>17-23 sq. inches</b>	<b>45-65</b>
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.

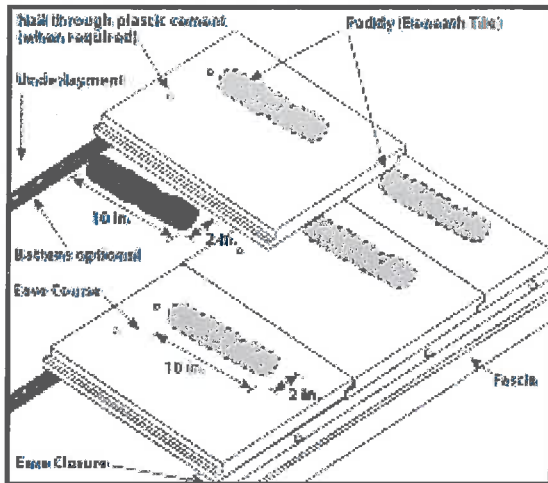
**BUILDING PERMIT REQUIREMENTS:**

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



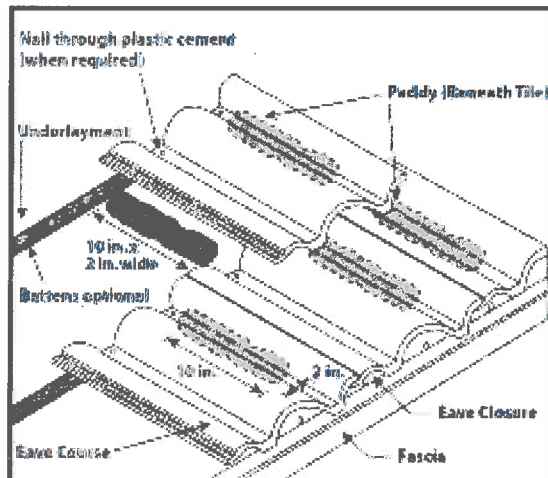
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## ADHESIVE PLACEMENT DETAIL # 1



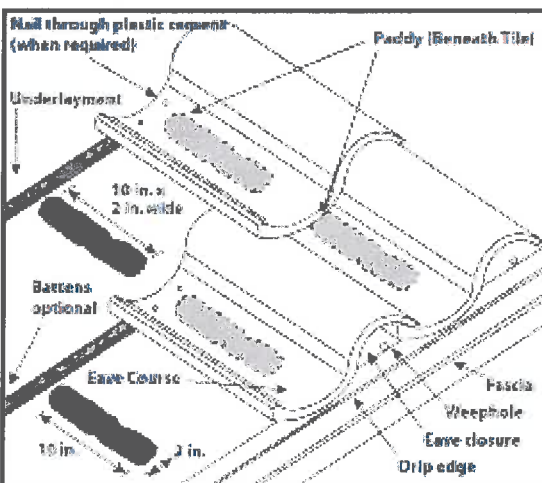
### Flat/Low Profile Tile

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<sup>2</sup>) – 23 (148.4 cm<sup>2</sup>) 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<sup>2</sup>) – 23 (148.4 cm<sup>2</sup>) square inch adhesive contact with the underside of the tile.

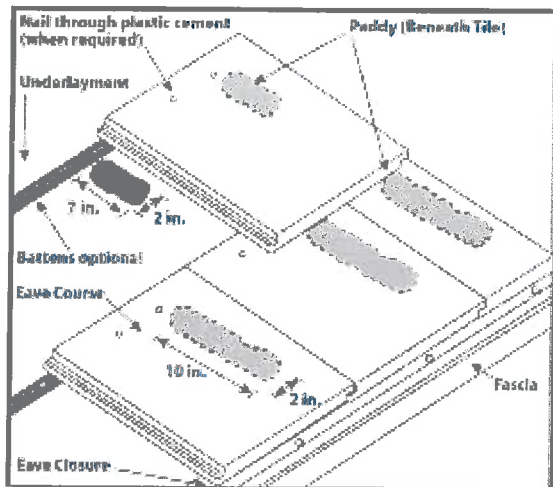


### High Profile / Single Pan Tile

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<sup>2</sup>) – 23 (148.4 cm<sup>2</sup>) square inch adhesive contact with the underside of the tile.

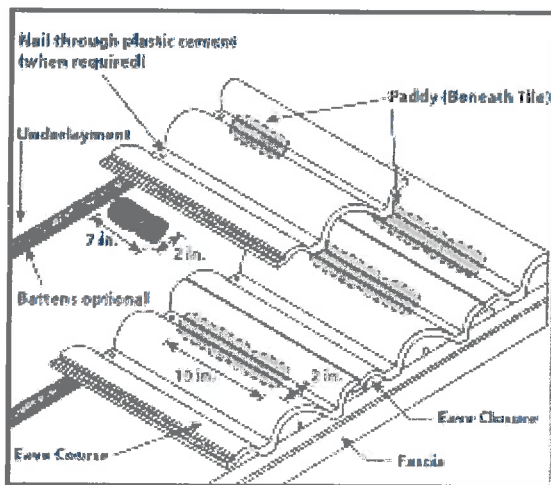


## ADHESIVE PLACEMENT DETAIL # 2



### 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<sup>2</sup>) – 23 (148.4 cm<sup>2</sup>) 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<sup>2</sup>) - 12 (77.4 cm<sup>2</sup>) square inch adhesive contact with the underside of the tile.

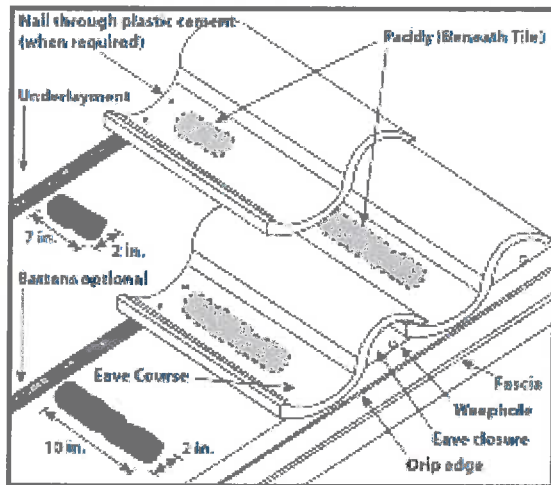


### Medium Profile / Double Pan Tile

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<sup>2</sup>) – 23 (148.4 cm<sup>2</sup>) 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 cm<sup>2</sup>) - 14 (90.3 cm<sup>2</sup>) square inch adhesive contact with the underside of the tile.

*(Instructions continued on next page)*

## ADHESIVE PLACEMENT DETAIL # 2 (CONTINUED)

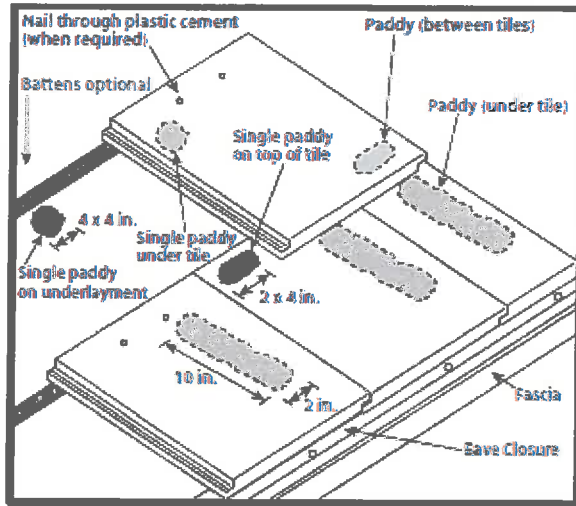


### High Profile / Single Pan Tile

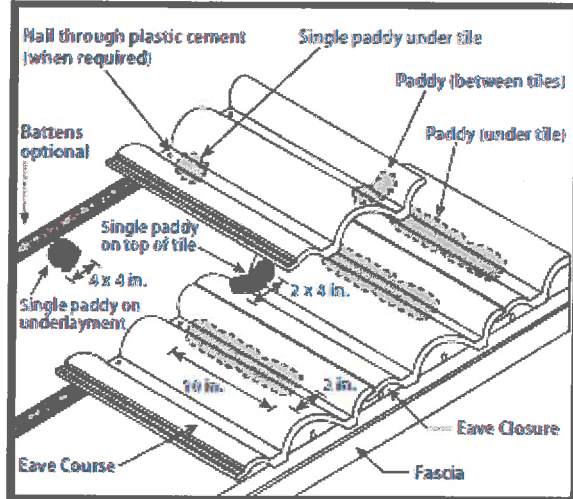
1. Starting at the eave course, apply a minimum 2" (50.8 mm) x 10" (254 mm) x 1" (25.4 mm) foam paddy onto the underlayment positioned as shown under the pan portion of the tile closest to the overlock of the tile being set. Insure approximately 17 (109.7 cm<sup>2</sup>) – 23 (148.4 cm<sup>2</sup>) square 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<sup>2</sup>) - 19 (122.6 cm<sup>2</sup>) square inch adhesive contact with the underside of the tile.



### ADHESIVE PLACEMENT DETAIL # 3



Flat/Low Profile Tile

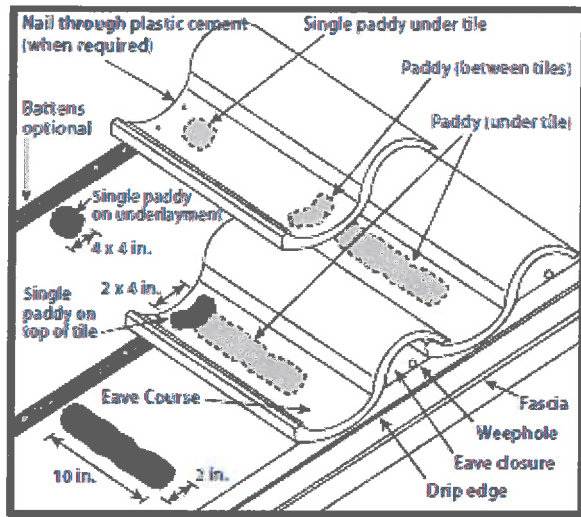


Medium Profile Tile

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<sup>2</sup> (109.7-148.4 cm<sup>2</sup>) 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<sup>2</sup> (51.6-58.1 cm<sup>2</sup>) of adhesive contact with the underside of the tile.

*(Instructions continued on next page)*

### ADHESIVE PLACEMENT DETAIL # 3 (CONTINUED)

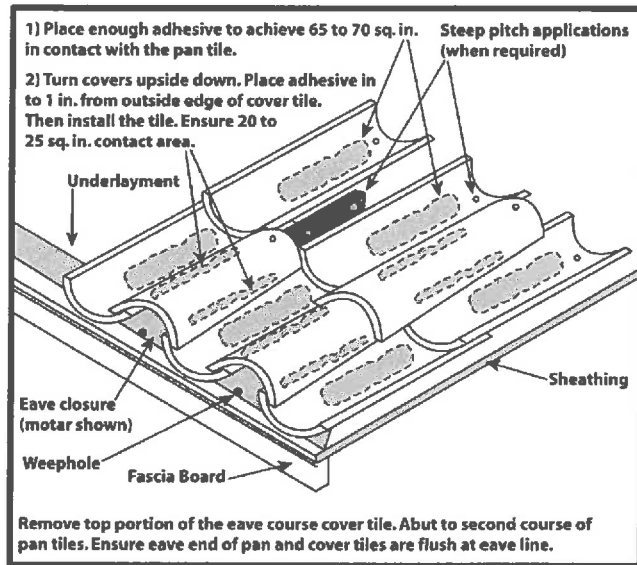


High Profile Tile

3. Also apply a 2" (50.8 mm) x 4" (101.6 mm) x  $\frac{3}{4}$ " (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<sup>2</sup>) - 11 (71 cm<sup>2</sup>) square inch adhesive contact with the underside of the tile at the overlap and 7 (45.2 cm<sup>2</sup>) - 9 (58.1 cm<sup>2</sup>) 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<sup>2</sup>) – 70 (451.6 cm<sup>2</sup>) 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<sup>2</sup>) - 25 (161.3 cm<sup>2</sup>) 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**