



**EXTERIOR RESEARCH & DESIGN, LLC.**

Certificate of Authorization #9503  
353 CHRISTIAN STREET, UNIT #13  
OXFORD, CT 06478  
(203) 262-9245

**EVALUATION REPORT**



**Entegra Roof Tile, LLC**  
1289 NE 9<sup>th</sup> Avenue  
Okeechobee, FL 34972  
**(602) 515-6933**

**Evaluation Report E39310.11.11-2-R5  
FL7804-R10  
Date of Issuance: 11/02/2011  
Revision 5 : 10/17/2017**

**SCOPE:**

This Evaluation Report is issued under **Rule 61G20-3** and the applicable rules and regulations governing the use of construction materials in the State of Florida. The documentation submitted has been reviewed by Robert Nieminen, P.E. for use of the product under the Florida Building Code and Florida Building Code, Residential Volume. The products described herein have been evaluated for compliance with the **6<sup>th</sup> Edition (2017) Florida Building Code (non-HVHZ)** sections noted herein.

**DESCRIPTION: Entegra Concrete Roof Tiles (non-HVHZ jurisdictions)**

**LABELING:** Labeling shall be in accordance with the requirements the Accredited Quality Assurance Agency noted herein.

**CONTINUED COMPLIANCE:** This Evaluation Report is valid until such time as the named product(s) changes, the referenced Quality Assurance documentation changes, or provisions of the Code that relate to the product change. Acceptance of this Evaluation Report by the named client constitutes agreement to notify Robert Nieminen, P.E. if the product changes or the referenced Quality Assurance documentation changes. Trinity|ERD requires a complete review of this Evaluation Report relative to updated Code requirements with each Code Cycle.

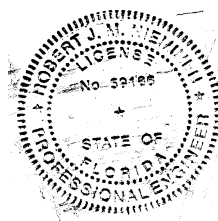
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**INSPECTION:** Upon request, a copy of this entire Evaluation Report shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This Evaluation Report consists of pages 1 through 6.

**Prepared by:**

**Robert J.M. Nieminen, P.E.**  
Florida Registration No. 59166, Florida DCA ANE1983



The facsimile seal appearing was authorized by Robert Nieminen, P.E. on 10/17/2017. This does not serve as an electronically signed document.

**CERTIFICATION OF INDEPENDENCE:**

1. Trinity|ERD does not have, nor does it intend to acquire or will it acquire, a financial interest in any company manufacturing or distributing products it evaluates.
2. Trinity|ERD is not owned, operated or controlled by any company manufacturing or distributing products it evaluates.
3. Robert Nieminen, P.E. does not have nor will acquire, a financial interest in any company manufacturing or distributing products for which the evaluation reports are being issued.
4. Robert Nieminen, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.
5. This is a building code evaluation. Neither Trinity|ERD nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

**ROOFING SYSTEM EVALUATION:**

**1. SCOPE:**

**Product Category:** Roofing  
**Sub-Category:** Roofing Tiles

**Compliance Statement:** Entegra Concrete Roof Tiles, as produced by Entegra Roof Tile, LLC, have demonstrated compliance with the following sections of the 6<sup>th</sup> Edition (2017) Florida Building Code through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

**2. STANDARDS:**

<u>Section</u>	<u>Property</u>	<u>Standard</u>	<u>Year</u>
1507.3.5, R905.3.5	Physical Properties	ASTM C1492	2003(2009)
1507.3.7, R905.3.7	Attachment Requirements	FRSA/TRI April 2012 (04-12)	2012
1504.2.1.1	Overturning Moment	SSTD 11	1997

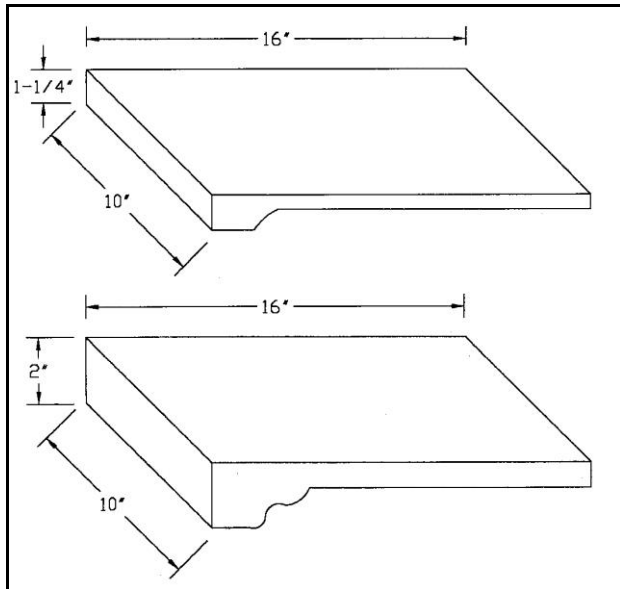
**3. REFERENCES:**

<u>Entity</u>	<u>Examination</u>	<u>Reference</u>	<u>Date</u>
ATL (TST3782)	Physical Properties	RT0615.01-11	06/28/2011
ATL (TST3782)	Physical Properties	RT0615.02-11	06/28/2011
ATL (TST3782)	Physical Properties	RT0615.03-11	06/28/2011
ATL (TST3782)	Physical Properties	RT0615.04-11	06/28/2011
ATL (TST3782)	Physical Properties	RT0615.05-11	06/28/2011
ATL (TST3782)	Physical Properties	RT0316.01-12	05/31/2012
ATL (TST 3782)	Physical Properties	RT1103.01-15	11/07/2015
ATL (TST 3782)	Physical Properties	RT1103.02-15	11/07/2015
ATL (TST 3782)	Physical Properties	RT1103.03-15	11/07/2015
ATL (TST 3782)	Physical Properties	RT1103.04-15	11/07/2015
ATL (TST 3782)	Physical Properties	RT1103.05-15	11/07/2015
PRI (TST5878)	Physical Properties	ESI-001-02-01	11/06/2006
PRI (TST5878)	Physical Properties	ESI-002-02-01	11/06/2006
PRI (TST5878)	Physical Properties	ESI-003-02-01	11/06/2006
PRI (TST5878)	Physical Properties	ESI-004-02-01	11/06/2006
PRI (TST5878)	Physical Properties	ESI-005-02-01	12/12/2006
PRI (TST5878)	Physical Properties	HRT-023-02-01	11/19/2007
PRI (TST5878)	Physical Properties	HRT-026-02-01	01/08/2008
Tile Roof Institute	SSTD 11	Membership Confirmation	Current
PRI (QUA9110)	Quality Assurance	Service Confirmation	Exp. 11/02/2018

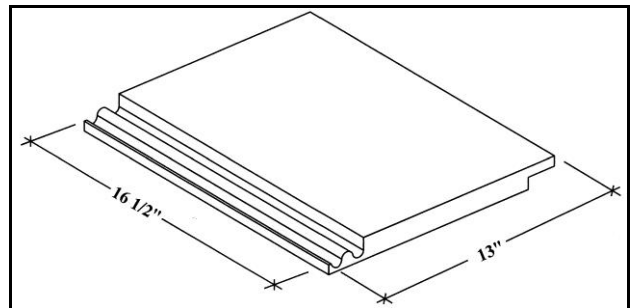
4. PRODUCT DESCRIPTION:

4.1 ASTM C1492, Type III (low-profile)

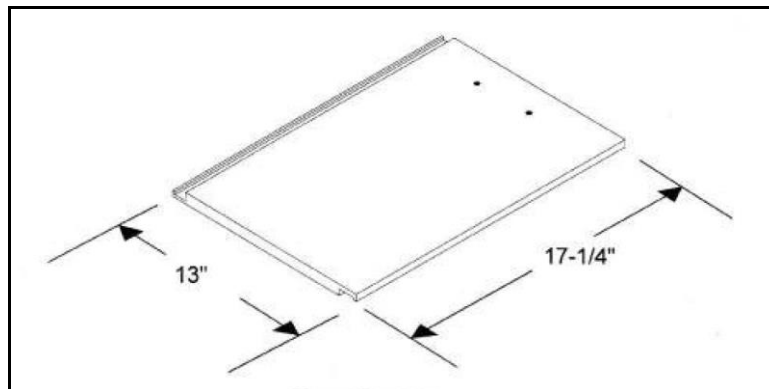
BERMUDA FLAT, PLANTATION FLAT and HORIZON FLAT



Bermuda Flat



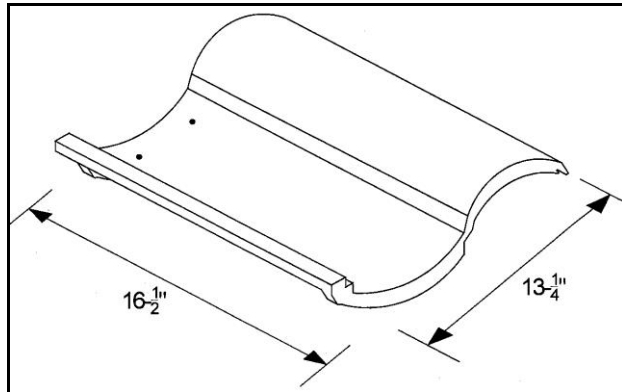
Plantation Flat



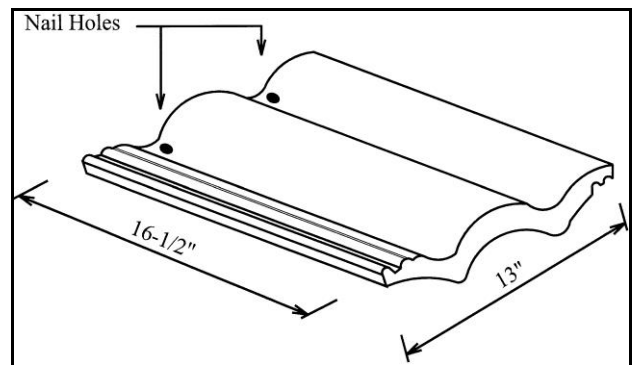
Horizon Flat

4.2 ASTM D1492, Type II (medium-profile)

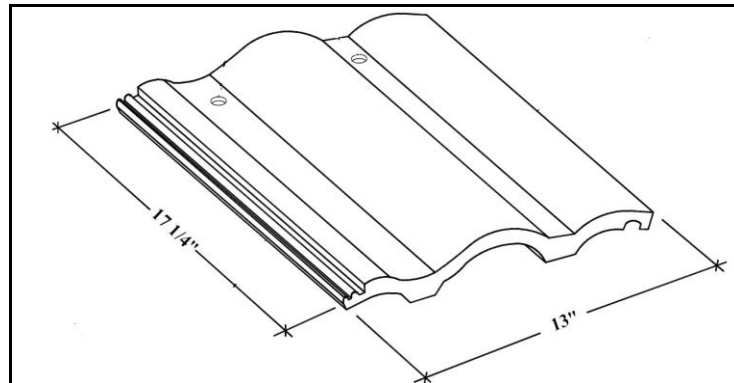
BELLA HIGH "S", ESTATE "S" and HACIENDA



Bella High "S"



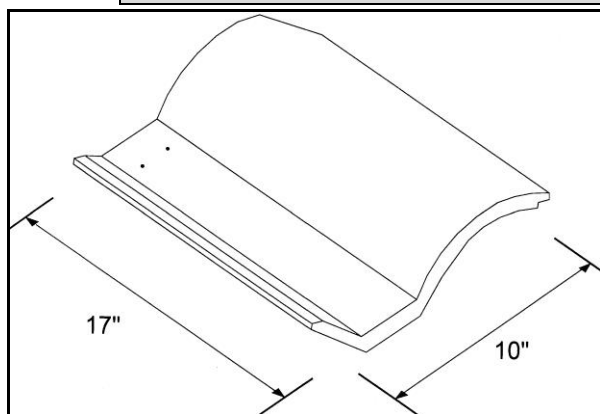
Estate "S"



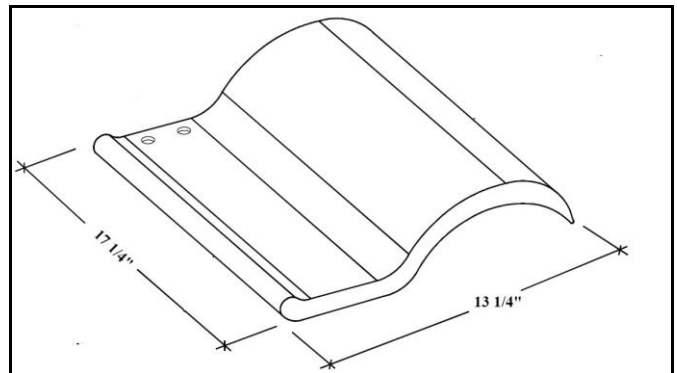
Hacienda

4.3 ASTM C1492, Type I (high-profile)

GALENA SPANISH "S" and REGAL



Galena Spanish "S"



Regal

**5. LIMITATIONS:**

- 5.1 This is a building code evaluation. Neither Trinity|ERD nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.
- 5.2 This Evaluation Report is not for use in FBC HVHZ jurisdictions.
- 5.3 Fire classification is not part of this evaluation; refer to **FBC 1505.2, Exception 2** (for non-combustible deck) or listing by an approved testing agency for fire rating of this product.
- 5.4 Underlayment shall hold Florida Local or Statewide Product Approval for use with tile roofing systems. The underlayment Product Approval shall specify allowable method(s) of tile installation (mechanical attachment, mortar-set and/or adhesive-set) for use with the specific underlayment. For mortar-set or adhesive-set tile roofing applications, the underlayment Product Approval shall specify attachment methods for the underlayment system to resist wind uplift design loads in accordance with **Table 1A of FRSA/TRI April 2012 (04-12)**.
- 5.5 All products in the roof assembly shall have quality assurance audit in accordance with **F.A.C. Rule 61G20-3**.

**6. INSTALLATION:**

- 6.1 **Entegra Concrete Roof Tiles** may be mechanically fastened, mortar-set or adhesive-set. Installation shall comply with manufacturer’s current published instructions, but not less than the requirements of **FBC 1507.3**, the **FRSA/TRI April 2012 (04-12)** and, for mortar-set or adhesive-set applications, the mortar or adhesive manufacturer’s Product Approval.
- 6.2 Underlayment shall be installed in accordance with **FRSA/TRI April 2012 (04-12)** or the underlayment manufacturer’s current Product Approval. For mortar-set or adhesive-set tile roofing applications, the underlayment current Product Approval shall specify attachment methods for the underlayment system to resist wind uplift design loads in accordance with **Table 1A of FRSA/TRI April 2012 (04-12)**.
- 6.3 Attachment:
  - 6.3.1 Mechanically Attached Tile:  
Wind load resistance shall be in accordance with **Table 3 of FRSA/TRI April 2012 (04-12)** to resist the Uplift Moment determined in **Table 2A or 2B of FRSA/TRI April 2012 (04-12)** or **FBC 1609.5.3**.
  - 6.3.2 Mortar-Set Tile:  
Wind load resistance shall be in accordance with **Table 2A or 2B of FRSA/TRI April 2012 (04-12)** or **FBC 1609.5.3** in conjunction with the mortar manufacturer’s Product Approval.
  - 6.3.3 Adhesive-Set Tile:  
Wind load resistance shall be in accordance with **Table 2A or 2B of FRSA/TRI April 2012 (04-12)** or **FBC 1609.5.3** in conjunction with the adhesive manufacturer’s current Product Approval. Refer to the current version of the referenced Florida Product Approval for paddy-placement details and performance data.

<b>TILE ADHESIVES FOR ADHESIVE-SET TILE SYSTEMS</b>		
<u>Manufacturer</u>	<u>Product(s)</u>	<u>Florida Product Approval</u>
DAP Foam, Inc.	“Touch N’ Seal Storm Bond”	FL14506
	“Touch N’ Seal Storm Bond 2”	FL21374
Dow Chemical	“TILE BOND™”	FL22525
ICP Adhesives & Sealants, Inc.	“Polyset® AH-160”	FL6332

6.3.4 Hip and Ridge Tile:

Tile shall be installed in accordance with **FRSA/TRI April 2012 (04-12)**. For hip and ridge tile installations atop hip and ridge metal, refer to the hip and ridge metal manufacturer’s current Product Approval (e.g., FL5374) or test report in accordance with **SSTD 11** for allowable loads to resist those determined in accordance with **Table 1A of FRSA/TRI April 2012 (04-12)**.

**7. LABELING:**

7.1 Each unit shall bear the imprint and/or identifiable marking of the manufacturer’s name or logo. Tile lots shall be labeled in accordance with the requirements of the Accredited Quality Assurance Agency noted herein.

**8. BUILDING PERMIT REQUIREMENTS:**

As required by the Building Official or Authority Having Jurisdiction in order to properly evaluate the installation of this product.

**9. MANUFACTURING PLANTS:**

Plant	Profiles
Okeechobee, FL	Bermuda Flat, Plantation Flat, Estate “S”, Bella High “S”, Galena Spanish “S”
Ft. Myers, FL	Horizon Flat, Hacienda
Deerfield Beach, FL	Horizon Flat, Hacienda, Regal

**10. QUALITY ASSURANCE ENTITY:**

PRI Construction Materials Technologies, LLC. – QUA9110; (813) 621-5777

**- END OF EVALUATION REPORT -**