



City of Belle Isle

Universal Engineering Sciences 3532 Maggie Blvd., Orlando, FL 32811
Tel 407-581-8161 * Fax 407-581-0313 * www.universalengineering.com

PERMIT CARD – PLEASE POST AT JOB SITE

THIS DOCUMENT BECOMES YOUR PERMIT WHEN PROPERLY VALIDATED

Per FBC 105.3.3: An enforcing authority may not issue a building permit for any building construction, erection, alteration, modification, repair or addition unless the permit either includes on its face or there is attached to the permit the following statement: "NOTICE: In addition to the requirements of this permit, there may be additional restrictions applicable to this property that may be found in the public records of this county, and there may be additional permits required from other governmental entities such as water management districts, state agencies, or federal agencies." The issuance of this permit does not grant permission to violate any applicable City, Orange County, State of Florida and/or Federal codes and/or ordinances. Separate permits are required for Signs, Roofing, Electrical, Gas, Plumbing and Mechanical services. This permit becomes VOID if the work authorized is not commenced within 6 months, or is suspended or abandoned for a period of 6 months after commencement. **WORK SHALL BE CONSIDERED SUSPENDED IF AN APPROVED INSPECTION HAS NOT BEEN MADE WITHIN A 6 MONTH PERIOD.** PERMISSION IS GRANTED TO DO THE FOLLOWING WORK ACCORDING TO THE CONDITIONS HEREON AND THE APPROVED PLANS AND SPECIFICATIONS, SUBJECT TO COMPLIANCE WITH THE ORDINANCES OF THE CITY OF BELLE ISLE, FLORIDA.

Scope of Work: ROOF : New Roof for Boat Dock
Comments: None
Project Information
Address: 7208 Seminole Drive, Belle Isle, FL 32812
Parcel ID: 29-23-30-4389-04-040
Property Owner: Black Pearl Realty Investments, LLC (Fusilier, Steve)
Phone Number: none

Company Name: Summertime Deck & Dock, LLC
Contractor Name: Lopez, Robin
License Number: CGC1511647
Address: 5968 B Lakehurst Drive, Orlando, FL 32836
Phone Number: 407-583-6251

Permit Number: 2016-04-004

Date of Application: 04/05/2016
Date Permit Issued: 04/06/2016

WARNING TO OWNER: "YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT." ON THE JOB INSPECTION(S) MUST BE MADE BEFORE PROCEEDING WITH SUBSEQUENT WORK. THIS CARD MUST BE DISPLAYED OUTSIDE AND BE PROTECTED FROM THE WEATHER WHILE BEING VISIBLE FROM THE STREET UNTIL THE FINAL INSPECTIONS HAVE BEEN APPROVED.

BUILDING FEATURES

IMPACT FEES
School \$
Traffic \$

ZONING FEES
Zoning Fee \$

UNIVERSAL ENG - BUILDING FEES

Cert of Occ \$
Demo \$\$
Building \$
Fence \$
Driveway \$
Shed \$
Window(s) \$
Door(s) \$
PrePower \$
Electrical \$
Temp Pole \$
Plumbing \$
Mechanical \$
Gas \$
Roofing \$67.50
Boat Dock \$
Screen Encl \$
Swimming Pool \$
Sign \$

SURCHARGE FEES

Surcharge Fee \$2.00
Surcharge Fee \$2.00

TOTAL FEES \$71.50

Date Paid 4-7-16
CC or Check # VISA 3631
Amount Paid 71.50

The person accepting this permit shall conform to the terms of the application on file and construction shall conform to the requirements of the Florida Building Code (FS 553).

BUILDING INSPECTOR USE ONLY

IF APPLICABLE:

Have Zoning Approval Conditions Been Met? YES NO Have Stormwater Approval Conditions Been Met? YES NO Silt fencing in place? YES NO Turbidity Barrier in place? YES NO

BUILDING

1st _____ (Footing/Foundation)
Survey specific foundation plan must be onsite before slab pour. Approved Plan on Site? ____
2nd _____ (Slab)
3rd _____ (Lintel)(Wall Reinforcing on Masonry Building)
4th _____ (Exterior Framing)(Roof/Wall Sheathing)
5th _____ (Framing) (To be made after Plumbing/ Mechanical/ Electrical Rough-Ins & Windows/Doors Installed)
6th _____ (Insulation to be Made After Roof Installed)
7th _____ (Drywall)
8th _____ (Sidewalk/Driveway)
9th _____ (Other)
10th _____ (Final – After MEP and Other Applicable Finals)

ROOFING

1ST ROOFING Deck Nailing/Dry-in/Flashing _____
2nd ROOFING Covering In-Progress _____
3rd ROOFING Covering Final _____

PLUMBING (Pool-Piping, Solar, Irrigation, Water Treatment Equip, Etc...)

1ST _____ (Underground) 2nd _____ (Sewer)
3rd _____ (Rough-In/Tub Set) 4th _____ (Final)

CHECK APPROPRIATE BOX

GAS ___ Natural ___ LP MECHANICAL ELECTRICAL LOW VOLTAGE

1st _____ (Rough-In) 2nd _____ (Final)

Inspection requests are to be emailed to BDscheduling@UniversalEngineering.com; a confirmation email will be sent back to you upon scheduling. **Next-Day Inspection requests must be made by 4pm.** Please include the following in your request: Permit #, project address, type of inspection, date of the requested inspection, a contact name & a contact phone number. AM or PM may be requested but cannot be guaranteed.

For a copy of your permit, or to check inspection results, please visit <https://universalengineering.sharefile.com>

login ID = cobi@universalengineering.com

password = universal13



City of Belle Isle

Universal Engineering Sciences 3532 Maggie Blvd., Orlando, FL 32811
Tel 407-581-8161 * Fax 407-581-0313 * www.universalengineering.com



APPLICATION FOR ROOFING PERMIT

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

DATE OF APPLICATION: 04/05/16

ROOF PERMIT NUMBER 2016-04-004

PLEASE PRINT. The undersigned hereby applies for a permit to make installations as indicated below:

Project Address 7208 Seminole Dr., Belle Isle, FL 32809 X 32812
Property Owner Steve Fusilier Phone 407.448.2733
Property Owner's Mailing Address 7208 Seminole Dr. City Belle Isle
State FL Zip Code 32812 Parcel Id Number: 29-23-30-4389-04-040

REQUIRED! To obtain this information, please visit <http://www.ocpafl.org/Searches/ParcelSearch.aspx>

Class of Building: Old New Type of Building: Residential Commercial Other
Type of Work: New Roof ReRoof

- **REQUIRED!** Florida Product Approval Screen Printout from www.floridabuilding.org showing the Code Version
- **REQUIRED!** Florida Product Approval Installation Instructions from www.floridabuilding.org (not the manufacturer instructions)
- **REQUIRED!** Copies of your General Liability & Worker's Comp Insurance Certificate & State and Local Licenses

Please indicate the nature of work by completing the information below:

Roof Square Footage: 961 Number of Stories: 1 Job Valuation: \$6,000 ✓
Type: Asphalt Shingles Metal Modified Bitumen Other: Tile BOAT DOCK ROOF

I hereby certify that the above is true and correct to the best of my knowledge and make Application for Permit as outlined above, and if same is granted I agree to conform to all Florida Building Code Regulations and City Ordinances regulating same and in accordance with plans submitted. The issuance of this permit does not grant permission to violate any applicable Town and/or State of Florida codes and/or ordinances. By signing below, I recognize Republic Services is by legal contract the sole authorized provider of garbage, recycling, yard waste, and commercial garbage and construction debris collection and disposal services with the city limits of the City. Contractors, homeowners and commercial businesses may contact Republic Services at 407-293-8000 to setup accounts for Commercial, Construction Roll Off, or other services needed. Rates are fixed by contract and are available at City Hall or from Republic Services. The City enforces the contract through its code enforcement office. Failure to comply will result in a stop work order.

LICENSE HOLDER SIGNATURE Robin Lopez LICENSE # CGC1511647
LICENSE HOLDER NAME Robin Lopez COMPANY NAME Summertime Deck and Dock
Street Address 5968 Lakehurst Drive
City Orlando State FL Zip Code 32819 Phone Number 407.583.6251
Email Address robin@summertimedocks.com

Building Official: [Signature] Date 4-7-16
Verified Contractor's Licenses & Insurance are on file [Signature] Date 4-5-16

| | |
|----------------------|-------------------|
| Zoning Fee | \$ <u>0 (new)</u> |
| Permit Fee | \$ <u>45.-</u> |
| Review Fee | \$ <u>22.50</u> |
| 3% Florida Surcharge | \$ <u>4.-</u> |
| Total Permit Fee | \$ <u>71.50</u> |

NOTE: The Building Permit Number is required if the Roof Installation is associated with any construction or alteration where a Building Permit has been issued. Building Permit Number _____

55x4 25 20 45.- 22.50 67.50
wo 66729 duck bly # 2015-09-064



Product Approval
USER: Public User

[Product Approval Menu](#) > [Product or Application Search](#) > [Application List](#) > **Application Detail**

OFFICE OF THE SECRETARY

| FL # | FL7473-R6 | | | | | | | | |
|--|---|-----------------|-------------|------------|------|---------------------|------|---------|------|
| Application Type | Revision | | | | | | | | |
| Code Version | 2014 | | | | | | | | |
| Application Status | Approved | | | | | | | | |
| Comments | Archived | | | | | | | | |
| Product Manufacturer | EAGLE ROOFING PRODUCTS FLORIDA LLC | | | | | | | | |
| Address/Phone/Email | 1575 East CR 470 Sumterville, FL 33858 (800) 400-3245 annettes@eagleroofting.com | | | | | | | | |
| Authorized Signature | Annette Sindar annettes@eagleroofting.com | | | | | | | | |
| Technical Representative | Greg Peterson | | | | | | | | |
| Address/Phone/Email | 1575 East CR 470 Sumpterville, FL 33585 (800) 400-3245 gregp@eagleroofting.com | | | | | | | | |
| Quality Assurance Representative | | | | | | | | | |
| Address/Phone/Email | | | | | | | | | |
| Category | Roofing | | | | | | | | |
| Subcategory | Roofing Tiles | | | | | | | | |
| Compliance Method | Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer <ul style="list-style-type: none"> ✓ Evaluation Report - Hardcopy Received | | | | | | | | |
| Florida Engineer or Architect Name who developed the Evaluation Report | Robert Nieminen | | | | | | | | |
| Florida License | PE-59166 | | | | | | | | |
| Quality Assurance Entity | Architectural Testing, Inc. | | | | | | | | |
| Quality Assurance Contract Expiration Date | 12/31/2018 | | | | | | | | |
| Validated By | John W. Knezevich, PE <ul style="list-style-type: none"> ✓ Validation Checklist - Hardcopy Received | | | | | | | | |
| Certificate of Independence | FL7473_R6_COI_2015_01_COI_Nieminen.pdf | | | | | | | | |
| Referenced Standard and Year (of Standard) | <table border="0"> <thead> <tr> <th>Standard</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>ASTM C1492</td> <td>2003</td> </tr> <tr> <td>FRSA/TRI April 2012</td> <td>2012</td> </tr> <tr> <td>SSTD 11</td> <td>1997</td> </tr> </tbody> </table> | Standard | Year | ASTM C1492 | 2003 | FRSA/TRI April 2012 | 2012 | SSTD 11 | 1997 |
| Standard | Year | | | | | | | | |
| ASTM C1492 | 2003 | | | | | | | | |
| FRSA/TRI April 2012 | 2012 | | | | | | | | |
| SSTD 11 | 1997 | | | | | | | | |
| Equivalence of Product Standards Certified By | | | | | | | | | |



Sections from the Code

Product Approval Method Method 1 Option D

Date Submitted 04/24/2015
Date Validated 04/27/2015
Date Pending FBC Approval 05/01/2015
Date Approved 06/23/2015

Summary of Products

| FL # | Model, Number or Name | Description |
|---|-----------------------|--|
| 7473.1 | Eagle Roof Tiles | Low (flat), medium and high profile concrete roof tiles |
| Limits of Use Approved for use in HVHZ: No Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: N/A Other: See Section 5 of Evaluation Report for Limits of Use. Tile roofs are analyzed for wind resistance through overturning moment. Refer to FRSA/TRI 07320 for overturning moment limitations. | | Installation Instructions FL7473_R6_II_2015_04_FINAL_ER_EAGLE_FL7473-R6.pdf Verified By: Robert J. M. Nieminen PE - 59166 Created by Independent Third Party: Yes Evaluation Reports FL7473_R6_AE_2015_04_FINAL_ER_EAGLE_FL7473-R6.pdf Created by Independent Third Party: Yes |

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Contact Us :: 1940 North Monroe Street, Tallahassee FL 32399 Phone: 850-487-1824

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Under Florida law, email addresses are public records. If you do not want your e-mail address released in response to a public-records request, do not send electronic mail to this entity. Instead, contact the office by phone or by traditional mail. If you have any questions, please contact 850.487.1395. *Pursuant to Section 455.275(1), Florida Statutes, effective October 1, 2012, licensees licensed under Chapter 455, F.S. must provide the Department with an email address if they have one. The emails provided may be used for official communication with the licensee. However email addresses are public record. If you do not wish to supply a personal address, please provide the Department with an email address which can be made available to the public. To determine if you are a licensee under Chapter 455, F.S., please click [here](#).

Product Approval Accepts:





EXTERIOR RESEARCH & DESIGN, LLC.
 Certificate of Authorization #9503
 353 CHRISTIAN STREET, UNIT #13
 OXFORD, CT 06478
 PHONE: (203) 262-9245
 FAX: (203) 262-9243

EVALUATION REPORT

Eagle Roofing Products Florida LLC.
 1575 East Country Road 470
 Sumterville, FL 33585

Evaluation Report E1322C.09.06-R3
FL7473-R6
Date of Issuance: 02/24/2009
Revision 3: 04/21/2015

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 5th Edition (2014) Florida Building Code sections noted herein.

DESCRIPTION: Eagle Roof Tiles

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.

ADVERTISEMENT: The Evaluation Report number preceded by the words "Trinity|ERD Evaluated" may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

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 4.

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 04/21/2015. This does not serve as an electronically signed document. Signed, sealed hardcopies have been transmitted to the Product Approval Administrator and to the named client

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: Eagle Roof Tiles, as produced by Eagle Roofing Products Florida LLC, have demonstrated compliance with the following sections of the 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:

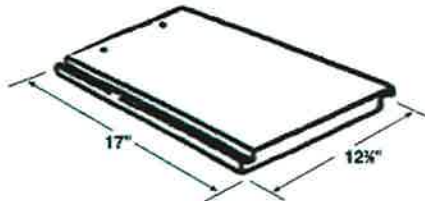
| Section | Property | Standard | Year |
|--------------------|-------------------------|-----------------------------|------|
| 1507.3.5, R905.3.5 | Physical Properties | ASTM C1492 | 2003 |
| 1507.3.7, R905.3.7 | Attachment Requirements | FRSA/TRI April 2012 (04-12) | 2012 |
| 1711.2.1 | Overturning Moment | SSTD 11 | 1997 |

3. REFERENCES:

| Entity | Examination | Reference | Date |
|----------------------|--------------------|----------------------|-----------------|
| ATL (TST 3782) | ASTM C1492 | RT0324.01-11 | 04/03/2011 |
| ATL (TST 3782) | ASTM C1492 | RT0324.02-11 | 04/03/2011 |
| ATL (TST 3782) | ASTM C1492 | RT0324.03-11 | 04/03/2011 |
| Miami-Dade (CER1592) | HVHZ certification | 11-0321.01 | 05/12/2011 |
| Miami-Dade (CER1592) | HVHZ certification | 11-0321.03 | 05/12/2011 |
| Miami-Dade (CER1592) | HVHZ certification | 12-0430.04 | 08/02/2012 |
| TRI | SSTD 11 | Membership Letter | 11/29/2005 |
| ATI (QUA 1844) | Quality Assurance | Service Confirmation | Exp. 12/31/2015 |

4. PRODUCT DESCRIPTION:

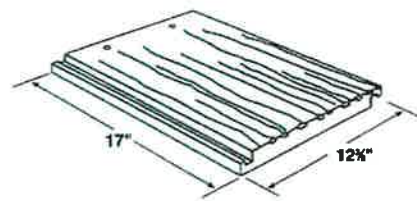
4.1 **BEL AIR, DOUBLE EAGLE BEL AIR, PONDEROSA, DOUBLE EAGLE PONDEROSA and GOLDEN EAGLE** are low (flat)-profile concrete roof tiles having a smooth or textured surface.



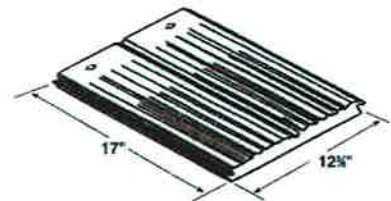
Bel Air



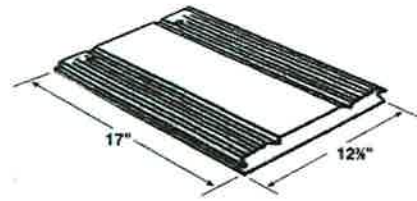
Double Eagle Bel Air



Ponderosa

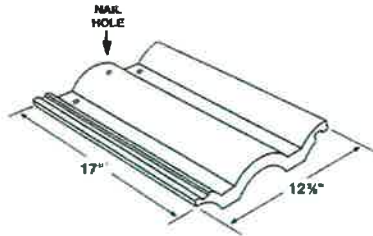


Double Eagle Ponderosa

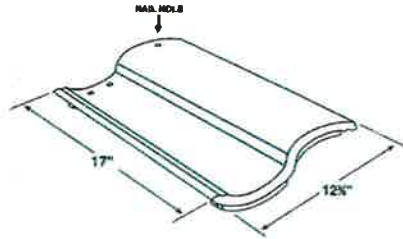


Golden Eagle

- 4.2 **MALIBU** are medium-profile concrete roof tiles.

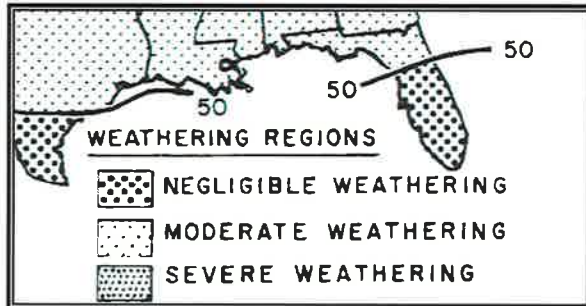


- 4.3 **CAPISTRANO** are high-profile concrete roof tiles.



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 the HVHZ.
- 5.3 Fire classification is not part of this evaluation; refer to FBC Section 1505.2, Exception 2 or current Approved Roofing Materials Directory for fire rating of this product.
- 5.4 Underlayment shall be that approved by Eagle Roofing Products, LLC, which holds Florida 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 This Evaluation Report is limited to use on projects in areas subjected to weathering indices of 50 or less (negligible weathering), as outlined in Figure 1 of ASTM C1492-03¹, reproduced below for reference.



- 5.6 All products in the roof assembly shall have quality assurance audit in accordance with the Florida Building Code and F.A.C. Rule 61G20-3.

6. INSTALLATION:

- 6.1 Eagle 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 Section 1507.3 and the FRSA/TRI *Florida High Wind Concrete and Clay Tile Installation Manual*, 5th Edition.
- 6.2 Attachment:
 - 6.2.1 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 Section 1609.5.3.
 - 6.2.2 Mortar-Set or Adhesive-Set Tile: Wind load resistance shall be in accordance with FBC Section 1609.5.3 in conjunction with the mortar or adhesive manufacturer's Product Approval.
 - 6.2.3 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 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 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.
- 7.2 Tile not tested for freeze-thaw shall state clearly that the lot has not been tested for freeze-thaw acceptance on all lot tags or certification.

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:

Contact the noted QA agency for information on product locations covered for F.A.C. Rule 61G20-3 QA requirements.

10. QUALITY ASSURANCE ENTITY:

Architectural Testing, Inc. – QUA1844; (717) 764-7700

- END OF EVALUATION REPORT -

¹ ASTM C1492-03, Standard Specification for Concrete Roof Tile, © ASTM International



| FL # | FL14317-R7 | | | | | | | | | | |
|--|---|-----------------|-------------|------------|------|-----------------------------|------|---------|------|---------|------|
| Application Type | Revision | | | | | | | | | | |
| Code Version | 2014 | | | | | | | | | | |
| Application Status | Approved | | | | | | | | | | |
| Comments | Archived | | | | | | | | | | |
| Product Manufacturer | Boral Roofing / MonierLifetile | | | | | | | | | | |
| Address/Phone/Email | 7575 Irvine Center Drive Suite 100 Irvine, CA 92618 (602) 515-6933 BoralRoofingUSAQuality@boral.com | | | | | | | | | | |
| Authorized Signature | Jemmett Thomas BoralRoofingUSAQuality@boral.com | | | | | | | | | | |
| Technical Representative | Adrian Cooper | | | | | | | | | | |
| Address/Phone/Email | 135 NW 20th Street Boca Raton, FL 33431 (954) 520-5461 acooppeer@minierlifetile.com | | | | | | | | | | |
| Quality Assurance Representative | | | | | | | | | | | |
| Address/Phone/Email | | | | | | | | | | | |
| Category | Roofing | | | | | | | | | | |
| Subcategory | Underlayments | | | | | | | | | | |
| Compliance Method | Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer <input type="checkbox"/> Evaluation Report - Hardcopy Received | | | | | | | | | | |
| Florida Engineer or Architect Name who developed the Evaluation Report | Robert J. M. Nieminen | | | | | | | | | | |
| Florida License | PE-59166 | | | | | | | | | | |
| Quality Assurance Entity | UL LLC | | | | | | | | | | |
| Quality Assurance Contract Expiration Date | 10/13/2017 | | | | | | | | | | |
| Validated By | John W. Knezevich, PE <input checked="" type="checkbox"/> Validation Checklist - Hardcopy Received | | | | | | | | | | |
| Certificate of Independence | FL14317_R7_COI_2015_01_COI_Nieminen.pdf | | | | | | | | | | |
| Referenced Standard and Year (of Standard) | <table border="0"> <thead> <tr> <th>Standard</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>ASTM D1970</td> <td>2009</td> </tr> <tr> <td>FRSA/TRI (April 2012) 04-12</td> <td>2012</td> </tr> <tr> <td>TAS 103</td> <td>1995</td> </tr> <tr> <td>UL 1897</td> <td>2004</td> </tr> </tbody> </table> | Standard | Year | ASTM D1970 | 2009 | FRSA/TRI (April 2012) 04-12 | 2012 | TAS 103 | 1995 | UL 1897 | 2004 |
| Standard | Year | | | | | | | | | | |
| ASTM D1970 | 2009 | | | | | | | | | | |
| FRSA/TRI (April 2012) 04-12 | 2012 | | | | | | | | | | |
| TAS 103 | 1995 | | | | | | | | | | |
| UL 1897 | 2004 | | | | | | | | | | |



Equivalence of Product Standards
Certified By

Sections from the Code

Product Approval Method Method 1 Option D

Date Submitted 07/01/2015
Date Validated 07/02/2015
Date Pending FBC Approval 07/11/2015
Date Approved 08/19/2015

Summary of Products

| FL # | Model, Number or Name | Description |
|--|--------------------------|--|
| 14317.1 | Boral Roof Underlayments | Roof underlayments for use in prepared roof assemblies |
| Limits of Use Approved for use in HVHZ: No Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: +N/A/-202.5 Other: 1.) The design pressure in this application pertains to a particular underlayment system for use under foam-on tile systems. Refer to ER Section 5.6.2 for all such systems and max design pressures. 2.) Refer to ER Section 5 for Limits of Use. | | Installation Instructions FL14317 R7 II 2015 07 FINAL ER BORAL Underlayments FL14317-R7.pdf Verified By: Robert J. M. Nieminen PE - 59166 Created by Independent Third Party: Yes Evaluation Reports FL14317 R7 AE 2015 07 FINAL ER BORAL Underlayments FL14317-R7.pdf Created by Independent Third Party: Yes |

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[Contact Us](#) :: 1940 North Monroe Street, Tallahassee FL 32399 Phone: 850-487-1824

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Product Approval Accepts:





EXTERIOR RESEARCH & DESIGN, LLC.
 Certificate of Authorization #9503
 353 CHRISTIAN STREET, UNIT #13
 OXFORD, CT 06478
 PHONE: (203) 262-9245
 FAX: (203) 262-9243

EVALUATION REPORT

Boral Roofing
 7575 Irvine Center Drive
 Suite 100
 Irvine, CA. 92618

Evaluation Report M35710.12.10-R8
FL14317-R7
Date of Issuance: 12/21/2010
Revision 8: 07/01/2015

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 5th Edition (2014) Florida Building Code sections noted herein.

DESCRIPTION: Boral Roof Underlayments

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

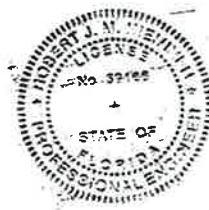
CONTINUED COMPLIANCE: This Evaluation Report is valid until such time as the named product(s) changes, the referenced Quality Assurance documentation changes, or provisions of the Code that relate to the product change. Acceptance of this Evaluation Report by the named client constitutes agreement to 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.

ADVERTISEMENT: The Evaluation Report number preceded by the words "Trinity|ERD Evaluated" may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

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:



The facsimile seal appearing was authorized by Robert Nieminen, P.E. on 07/01/2015. This does not serve as an electronically signed document. Signed, sealed hardcopies have been transmitted to the Product Approval Administrator and to the named client

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 COMPONENT EVALUATION:

1. SCOPE:

Product Category: Roofing
Sub-Category: Underlayment

Compliance Statement: Boral Roof Underlayments, as marketed by Boral Roofing, have demonstrated compliance with the following sections of the 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> |
|--|-----------------------|-----------------------------|-------------|
| 1504.3.1 | Wind Uplift | UL 1897 | 2004 |
| 1507.2.4, 1507.2.8, 1507.2.9.2, 1507.4.5.1, 1507.4.5.2, 1507.5.3, 1507.5.3.2, 1507.6.3, 1507.6.3.2, 1507.7.3, 1507.7.3.2 | Physical Properties | ASTM D1970 | 2009 |
| 1507.3.3 | Installation Practice | FRSA/TRI April 2012 (04-12) | 2012 |
| 1523.6.5.2.1 | Physical Properties | TAS 103 | 1995 |

3. REFERENCES:

| <u>Entity</u> | <u>Examination</u> | <u>Reference</u> | <u>Date</u> |
|---------------------|---------------------|------------------------------------|-----------------|
| ERD (TST6049) | Wind Uplift | T6460.06.07-R1 | 10/09/2007 |
| ERD (TST6049) | Physical Properties | T33190.08.10 | 08/06/2010 |
| ERD (TST 6049) | Physical Properties | M33180.08.10 | 10/09/2010 |
| ERD (TST6049) | Wind Uplift | T37610.07.11 | 07/29/2011 |
| ERD (TST 6049) | Physical Properties | B40380.08.12 | 08/28/2012 |
| ERD (TST 6049) | Physical Properties | C41420.09.12-2 | 09/11/2012 |
| ERD (TST 6049) | Physical Properties | B41940.09.12 | 09/13/2012 |
| ERD (TST 6049) | Physical Properties | B47390.07.14-1 | 07/31/2014 |
| ERD (TST 6049) | Physical Properties | B47390.09.14 | 09/04/2014 |
| PRI (TST 5878) | Physical Properties | NEI-006-02-01 | 04/01/2002 |
| PRI (TST 5878) | Physical Properties | NEI-034-02-02 | 03/23/2006 |
| PRI (TST 5878) | Physical Properties | NEI-045-02-01 | 08/08/2007 |
| PRI (TST 5878) | Physical Properties | NEI-053-02-01 | 05/01/2008 |
| PRI (TST 5878) | Physical Properties | NEI-070-02-01 | 08/12/2009 |
| PRI (TST 5878) | Physical Properties | NEI-031-02-02:REV 10.27.10 | 10/27/2010 |
| PRI (TST 5878) | Physical Properties | NEI-029-02-01REV: 11.03.10 | 12/03/2010 |
| PRI (TST 5878) | Physical Properties | NEI-046-02-01REV | 12/17/2010 |
| PRI (TST 5878) | Physical Properties | NEI-034-02-02 / MLT-015-02-01 | 01/29/2013 |
| PRI (TST 5878) | Wind Uplift | BORR-001-02-01 | 03/17/2015 |
| PRI (TST 5878) | Wind Uplift | BORR-005-02-01 | 06/24/2015 |
| UL, LLC. (QUA 9625) | Quality Assurance | Service Confirmation, R14610 | Exp. 12/10/2017 |
| UL, LLC. (QUA 9625) | Quality Assurance | Cross-Listing Confirmation, R16744 | 09/04/2013 |
| UL, LLC. (QUA 9625) | Quality Assurance | Service Confirmation, R16744 | Exp. 10/13/2017 |

4. PRODUCT DESCRIPTION:

4.1 Self-Adhering Underlayments:

- 4.1.1 **Boral TileSeal® 50^{HT}** is a nominal 50-mil thick, polyester-surfaced, self-adhering SBS modified bitumen roof underlayment.
- 4.1.2 **Boral TileSeal® ^{HT}** is a nominal 60-mil thick, polyester-surfaced, self-adhering SBS modified bitumen roof underlayment.
- 4.1.3 **GatorSeal®** is a nominal 55-mil thick, granular-surfaced, fiberglass reinforced, self-adhering SBS modified bitumen roof underlayment.
- 4.1.4 **StormSentry™** is a nominal 120-mil thick, mineral-surfaced, fiberglass reinforced, self-adhering SBS modified bitumen roof underlayment.
- 4.1.5 **Citadel® Plus** is a nominal 48-mil thick, fabric-surfaced, fiberglass reinforced, self-adhering SBS modified bitumen roofing underlayment for use as a base-layer in two-ply underlayment systems.

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 the HVHZ.
- 5.3 Fire Classification is not part of this Laboratory Report; refer to current Approved Roofing Materials Directory for fire ratings of this product.
- 5.4 Boral Roof Underlayments may be used with any prepared roof cover where the product is specifically referenced within FBC approval documents. If not listed, a request may be made to the AHJ for approval based on this evaluation combined with supporting data for the prepared roof covering.
- 5.5 Allowable roof covers applied atop Boral Roof Underlayments are follows. Table 1 pertains to use of each listed underlayment by-itself beneath the stated roof covers. Refer to the installation instructions and Table 2 for two-ply underlayment options.

| TABLE 1: ROOF COVER OPTIONS | | | | | | |
|---------------------------------|------------------|-----------------------|--------------------|-------|------------------------|-------|
| Underlayment | Asphalt Shingles | Nail-On Tile | Foam-On Tile | Metal | Wood Shakes & Shingles | Slate |
| Boral TileSeal 50 ^{HT} | Yes | Yes (battens only) | No | Yes | Yes | Yes |
| Boral TileSeal ^{HT} | Yes | Yes | Yes (See 5.5.1) | Yes | Yes | Yes |
| GatorSeal | Yes | Yes (battens only) | No | No | Yes | Yes |
| StormSentry | Yes | Yes | No | No | Yes | Yes |

- 5.5.1 "Foam-On Tile" is limited to use of the following unless tensile adhesion / long term aging data from an accredited testing laboratory is provided.

| Underlayment | Tile Adhesives |
|------------------------------|--|
| Boral TileSeal ^{HT} | 3M™ 2-Component Foam Roof Tile Adhesive AH-160 (FL6332) 3M™ Roof Tile Adhesive RTA-1 (FL6276) Dow TILE BOND™ Roof Tile Adhesive (FL1717) Convenience Products' Touch 'n Seal StormBond Roof Tile Adhesive (FL14506) |

5.6 Allowable Substrates:

5.6.1 Direct-Bond to Deck:

- Citadel Plus, Boral TileSeal 50^{HT}, Boral TileSeal^{HT}, StormSentry or GatorSeal:
 - Plywood (unprimed or primed with ASTM D41 primer).
- Boral TileSeal^{HT}:
 - OSB primed with ASTM D41 primer.

5.6.2 Wind Resistance of Underlayment Systems in Foam-On Tile Applications: FRSA/TRI April 2012 (04-12) does not address wind uplift resistance of all underlayment systems beneath foam-on tile systems, where the underlayment forms part of the load-path. The following wind uplift limitations apply to underlayment systems that are not prescriptively addressed in FRSA/TRI April 2012 (04-12) and are used in foam-on tile applications. Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads, and reflects the ultimate passing pressure divided by 2 (the 2 to 1 margin of safety per FBC 1504.9 has already been applied). Refer to FRSA/TRI April 2012 (04-12), Appendix A, Table 1A or FBC 1609 for determination of design wind loads.

5.6.2.1 Maximum Design Pressure = -105 psf.

- Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
- Base Ply: (Optional) Citadel Plus, self-adhered
- Underlayment: Boral TileSeal^{HT}, self-adhered and back-nailed within the selvedge-edge side laps using 12 ga. x 1¼" ring shank nails through 32 ga., 1-5/8" diameter tin caps spaced 12-inch o.c.

5.6.2.2 **Maximum Design Pressure = -202.5 psf.**

Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
 Primer: ASTM D41 to the plywood deck
 Base Ply: (Optional) Citadel Plus, self-adhered
 Underlayment: Boral TileSeal^{HT}, self-adhered, and back-nailed within the selvage-edge side laps using 12 ga. x 1½" ring shank nails through 32 ga., 1-5/8" diameter tin caps spaced 12-inch o.c.

5.6.3 **Bond to Base Layer Underlayment:**

Citadel Plus, Boral TileSeal 50^{HT}, Boral TileSeal^{HT} or GatorSeal:

- ASTM D226, Type II felt; Citadel Plus.

StormSentry:

- ASTM D226, Type II felt; Citadel Plus.

For installations under mechanically attached prepared roof coverings, base layer shall be attached per minimum codified requirements. For installations under foam-on tile systems, base layer shall be attached per minimum requirements of FRSA/TRI April 2012 (04-12), Appendix A, Table 1 or as tested in accordance with FBC Section 1504.3.1.

5.6.4 **Bond to Other Substrate Types:**

Citadel Plus, Boral TileSeal 50^{HT}, Boral TileSeal^{HT}, StormSentry or GatorSeal:

- ASTM D41 primed metal (e.g., flashing metal, valley metal, etc).

Boral TileSeal^{HT}:

- Huber Zip Deck (unprimed or primed with ASTM D41 primer); Dens Deck Prime.

Note: For installation under mechanically attached prepared roof coverings, insulation shall be attached per minimum requirements of the prepared roof covering manufacturer's Product Approval.

5.7 **Exposure Limitations:**

- 5.7.1 GatorSeal shall not be left exposed for longer than 30-days after installation, prior to placement of final roof cover.
- 5.7.2 StormSentry shall not be left exposed for longer than 90-days after installation, prior to placement of final roof cover.
- 5.7.3 Alcazar, Boral TileSeal 50^{HT} and Boral TileSeal^{HT} shall not be left exposed for longer than 180-days after installation, prior to placement of final roof cover.
- 5.7.4 Citadel Plus, for use as a base-layer in a two-ply underlayment system, shall not be left exposed for longer than 180-days after installation, prior to placement of subsequent underlayment layer.

6. INSTALLATION:

- 6.1 Boral Roof Underlayments shall be installed in accordance with Boral Roofing published installation instructions subject to the Limitations set forth in Section 5 herein and the specifics noted below.
- 6.2 Re-fasten any loose decking panels, and check for protruding nail heads. Sweep the substrate thoroughly to remove any dust and debris prior to application, and prime the substrate (if applicable).
- 6.3 Install self-adhering underlayment when ambient and surface temperatures are minimum 40°F and rising.

6.4 Citadel Plus:

- 6.4.1 Citadel Plus is limited to use as a base or mid-layer in multi-ply underlayment systems beneath Boral TileSeal 50^{HT}, Boral TileSeal^{HT}, GatorSeal or StormSentry.
- 6.4.2 Slope limitations are those associated with the top-layer underlayment.

6.4.3 Direct to Deck:

Cut the membrane into manageable lengths, typically 10 to 12 ft. Align the membrane parallel to the roof edge, extending over by ¼-inch. Fold the membrane away from the edge onto itself. Remove the release sheet. Place the membrane with the exposed rubberized asphalt onto the deck, pressing firmly into place. Roll into place with a weighted roller.

Boral recommends fastening of the top edge of the sheet to the deck with roofing nails, nails & tin-tags or 1-inch diameter plastic or steel cap nails spaced 24-inch o.c. for slopes below 7:12 and 12-inch o.c. for slopes 7:12 and greater. Overlap successive courses minimum 2 inches (horizontal lap) and minimum 4" end (vertical) laps.

Install final underlayment layer atop Citadel Plus per 'direct-to-deck' instructions for Boral TileSeal 50^{HT}, Boral TileSeal^{HT}, GatorSeal or StormSentry.

- 6.4.4 **To Base Sheet:**
Install ASTM D226, Type II felt in accordance with Code requirements or install Citadel Plus in accordance with Boral Roofing published installation instructions and Section 6.4.3 and when used as part of a multi-ply system.
Install Citadel Plus as a mid-ply in accordance with Boral Roofing published installation instructions and Section 6.4.3.
Install final underlayment layer atop Citadel Plus per 'direct-to-deck' instructions for Boral TileSeal 50^{HT}, Boral TileSeal^{HT}, GatorSeal or StormSentry.
- 6.5 Boral TileSeal 50^{HT}:**
- 6.5.1 Install Boral TileSeal 50^{HT} in compliance with manufacturer's published installation instructions and the requirements for ASTM D1970 underlayments in FBC Sections 1507 for the type of prepared roof covering to be installed.
- 6.5.2 Do not use Boral TileSeal 50^{HT} on roof pitches less than 2:12.
- 6.5.3 **Non-Tile Applications, Direct to Deck:**
Cut the membrane into manageable lengths, typically 10 to 12 ft. Align the membrane parallel to the roof edge, extending over by ¼-inch. Fold the membrane away from the edge onto itself. Remove the release sheet. Place the membrane with the exposed rubberized asphalt onto the deck, pressing firmly into place. Roll into place with a weighted roller.
Boral recommends fastening of the black selvage edge to the deck with roofing nails, nails & tin-tags or 1-inch diameter plastic or steel cap nails spaced 24-inch o.c. for slopes below 7:12 and 12-inch o.c. for slopes 7:12 and greater. Overlap successive courses the width of the black-selvage area, minimum 3-inch.
Seal under end (vertical) laps using approved mastic, or use Joined and Folded Seam or Inverted Sheet Seam method detailed in Boral Roofing published installation instructions.
- 6.5.4 **Non-Tile Applications, to Base Sheet:**
Install ASTM D226, Type II felt in accordance with Code requirements.
Install Boral TileSeal 50^{HT} in accordance with Boral Roofing published installation instructions and Section 6.5.3, except end (vertical) laps, described below.
Apply SBS Mastic under all end (vertical) laps or any other laps where the self-adhering bituminous underside is in contact with the fabric top surface, rolling the interface into place with a weighted roller.
- 6.5.5 **Tile Applications:**
Reference is made to FRSA/TRI April 2012 (04-12) Installation Manual and Table 1 herein, using the instructions noted above as a guideline. Tile shall be loaded and staged in a manner that prevents tile slippage and/or damage to the underlayment.
Battens must be used for all tile installations atop Boral TileSeal 50^{HT}. Boral Roofing's Elevated Batten System™ or counter battens are required for roof pitches of 2 ½:12 to less than 4:12.
- 6.6 GatorSeal and StormSentry:**
- 6.6.1 Install GatorSeal and StormSentry in compliance with manufacturer's published installation instructions and the requirements for ASTM D1970 underlayments in FBC Sections 1507 for the type of prepared roof covering to be installed.
- 6.6.2 Do not use GatorSeal on roof pitches less than 2:12. Do not use StormSentry on roof pitches less than ½:12 while ensuring there is no possibility for ponding water on the surface of StormSentry.
- 6.6.3 **Non-Tile applications, Direct to Deck:**
Cut the membrane into manageable lengths, typically 10 to 12 ft. Align the membrane parallel to the roof edge, extending over by ¼-inch. Fold the membrane away from the edge onto itself. Remove the release sheet. Place the membrane with the exposed rubberized asphalt onto the deck, pressing firmly into place. Roll into place with a weighted roller.
Boral recommends fastening of the black selvage edge to the deck with roofing nails, nails & tin-tags or 1-inch diameter plastic or steel cap nails spaced 24-inch o.c. for slopes below 7:12 and 12-inch o.c. for slopes 7:12 and greater. Overlap successive courses the width of the black-selvage area, minimum 3-inch.
Seal end (vertical) laps using SBS Mastic under all side (vertical) laps or any other laps where the self-adhering bituminous underside is in contact with the granular or mineral top surface, rolling the interface into place with a weighted roller, or using the Inverted Sheet Seam detailed in Boral Roofing published installation instructions.

- 6.6.4 **Non-Tile Applications, to Base Sheet:**
 Install ASTM D226, Type II felt in accordance with Code requirements or install Citadel Plus in accordance with Boral Roofing published installation instructions and Section 6.4.
 Install GatorSeal or StormSentry over ASTM D226, Type II felt or Citadel Plus in accordance with Boral Roofing published installation instructions and Section 6.6.3 except end (vertical) laps, described below.
 Apply SBS Mastic under all side (vertical) laps or any other laps where the self-adhering bituminous underside is in contact with the granular top surface, rolling the interface into place with a weighted roller.
- 6.6.5 **Tile Applications:**
 Reference is made to FRSA/TRI April 2012 (04-12) Installation Manual and Table 1 herein, using the instructions noted above as a guideline. Tile shall be loaded and staged in a manner that prevents tile slippage and/or damage to the underlayment.
 Battens must be used for all tile installations atop GatorSeal.
- 6.7 Boral TileSeal^{HT}:**
- 6.7.1 Install Boral TileSeal^{HT} in compliance with manufacturer's published installation instructions and the requirements for ASTM D1970 underlayments in FBC Sections 1507 for the type of prepared roof covering to be installed.
- 6.7.2 Do not use Boral TileSeal^{HT} on roof pitches less than 2:12.
- 6.7.3 **Non-Tile Applications, Direct to Deck:**
 For OSB substrate, prime with ASTM D41 primer and allow to dry prior to installation. Cut the membrane into manageable lengths, typically 10 to 12 ft. Align the membrane parallel to the roof edge, extending over by ¼-inch. Fold the membrane away from the edge onto itself. Remove the release sheet. Place the membrane with the exposed rubberized asphalt onto the deck, pressing firmly into place. Roll into place with a weighted roller.
 Boral recommends fastening of the black selvage edge to the deck with roofing nails, nails & tin-tags or 1-inch diameter plastic or steel cap nails spaced 24-inch o.c. for slopes below 7:12 and 12-inch o.c. for slopes 7:12 and greater. Overlap successive courses the width of the black-selvage area, minimum 3-inch.
 Seal under end (vertical) laps using approved mastic, or use Joined and Folded Seam or Inverted Sheet Seam method detailed in Boral Roofing published installation instructions.
- 6.7.4 **Non-Tile Applications, to Base Sheet:**
 Install ASTM D226, Type II felt in accordance with Code requirements or install Citadel Plus in accordance with Boral Roofing published installation instructions and Section 6.4.
 Install Boral TileSeal^{HT} in accordance with Boral Roofing published installation instructions and Section 6.7.3, except end (vertical) laps, described below.
 Apply SBS Mastic under all end (vertical) laps or any other laps where the self-adhering bituminous underside is in contact with the fabric top surface, rolling the interface into place with a weighted roller.
- 6.7.5 **Tile Applications:**
 Reference is made to FRSA/TRI April 2012 (04-12) Installation Manual and Table 1 herein, using the instructions noted above as a guideline. Tile shall be loaded and staged in a manner that prevents tile slippage and/or damage to the underlayment.
 Battens must be used for all tile installations atop Boral TileSeal^{HT} with roof pitches of 2½ to less than 3:12. Boral Roofing's Elevated Batten System or counter battens are required.
 Approved foam adhesive may be used for roof slopes 2:12 and greater.

7. BUILDING PERMIT REQUIREMENTS:

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

8. MANUFACTURING PLANTS:

Contact the manufacturer or the named QA entity for information on plants covered under Rule 61G20-3 QA requirements.

9. QUALITY ASSURANCE ENTITY:

UL, LLC. – QUA9625; (414) 248-6409; Karen.buchmann@us.ul.com

- END OF EVALUATION REPORT -