



City of Belle Isle Job Site Permit Card **ROOF** 2021-04-091

Class: Residential

Site Address: 1443 Conway Isle Cir- Belle Isle, FL 32809

Parcel Number: 24-23-29-3490-00-270. Municipality Belle Isle

INSPECTIONS CANNOT BE SCHEDULED IF A NOC IS REQUIRED FOR THIS PROJECT

Description of Work: ROOF for SFR

Number of Stories: 2.

TILE with underlayment Square Footage: 5700.

Issued: Janney Construction Services LLC - Janney, John

License # CCC1329728

Contact # 321 385 7663

Payment/ Issued Date & Method: 4/23 / 2021

Picked up by _____ Sent by mail to the mailing address Emailed

Visa Master Card Amex Discover Check / Money Order#

9 1 1 7 /

Inspection requests & inquiries regarding results are to be emailed to: BD scheduling@UniversalEngineering.com

| ROOF | INSPECTOR | DATE | COMMENTS |
|--|-----------|------|--|
| NEW ROOFS ONLY Code 700 Deck Nailing, Dry-In, Flashing | | | This inspection only applies for a NEW roof only! |
| Both new & re-roof Code 710 In - Progress | | | Underlayment & Dry-in COMPLETE with UP TO 25% shingle coverage. |
| Both new & re-roof Code 720 Final | | | Schedule when roof is COMPLETE. |

OSHA approved ladder/access to the ROOF must be made available to the Inspector.

PLEASE NOTE: In order to schedule any inspections, the PERMIT / plans-specs. must be issued and POSTED on the JOB SITE! THIS WILL AVOID ANY FAILED INSPECTIONS & RE-INSPECTION FEES. A permit expires in 6 months if approved inspections are not recorded /scheduled within that time frame. You are responsible for scheduling and keeping track all of your inspections -

☆ Inspection requests are to be emailed to BD scheduling@UniversalEngineering.com; a confirmation email will be sent back to you upon scheduling. **Next-Day Inspection requests must be made by 3:00 p.m.** Please include the following requirements in your request:

- Project Address
- Corresponding Permit Number
- Type of Inspection (Please reference your permit card for inspection codes)
- Date of Inspection (If no date is specified, the inspection will be scheduled for the next business day)
- Contact Name
- Contact Phone Number
- Gate / Entry code (If applicable)
- AM, PM, or Any Time (We do our best to accommodate time requests but cannot guarantee an exact arrival)

Universal Engineering Sciences - 3532 Maggie Blvd., Orlando, FL 32811407-581-8161 * Fax 407-581-0313 www.universalengineering.com

"WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR 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."

Excellent Submittal!



City of Belle Isle

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

RECEIVED
APR 23 2021

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: _____

ROOF PERMIT NUMBER 2021-04-091

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

Project Address 1443 Conway Isle Circle, Belle Isle, FL X 32809 32812

Property Owner Trudy Blakeman Phone 407-810-2148

Property Owner's Mailing Address 1443 Conway Isle Circle City Orlando

State FL Zip Code 32809 Parcel Id Number: 24-23-29-3490-00-270

REQUIRED! To obtain this information, please visit <http://www.ocpafi.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 Form – NOTE: installation instructions must be posted on-site before your first inspection!!

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

Roof Square Footage: 5700 Number of Stories: 2 Job Valuation: \$ 22,800

IS = 34,200

Type: Asphalt Shingles Metal Modified Bitumen Other: Tile

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 [Signature] LICENSE # CCC1329428

LICENSE HOLDER NAME John C. Janney COMPANY NAME Janney Construction Services

Street Address 640 N Semoran Blvd.

City Orlando State FL Zip Code 32807 Phone Number 321-385-7663

Email Address inspections@janneyroofing.com

✓ NOC ✓ PA ✓ AFFIDAVIT ✓ PRT

| | | |
|------------------|----|---------------|
| Zoning Fee | \$ | <u>30.-</u> |
| Building Fee | \$ | <u>145.-</u> |
| Review Fee | \$ | <u>0</u> |
| 1% BCAIB Fee | \$ | <u>2 min</u> |
| 1.5% DCA Fee | \$ | <u>2.93</u> |
| Total Permit Fee | \$ | <u>229.93</u> |

Building Official: OTC Date 4-23-2021

Verified Contractor's Licenses & Insurance are on file fr Date 4-23-2021

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.

1511K
5x34

25
170
195

Alex 9/17/1
4-23-2021

Permit Number _____
 Folio/Parcel ID # 24-23-29-2480-00-270
 Prepared by: NOK Construction
2750 Taylor Ave Ste. A 27
Orlando FL 32806
 Return to Janney Construction Services
640 N. Semoran Blvd Orlando FL 32807

DOC # 20210226063
 04/15/2021 08:45 AM Page 1 of 1
 Rec Fee \$10.00
 Deed Doc Tax: \$0.00
 Mortgage Doc Tax: \$0.00
 Intangible Tax \$0.00
 Phil Diamond, Comptroller
 Orange County, FL
 Ret To: SIMPLIFILE LC

2021-04-09

NOTICE OF COMMENCEMENT

State of Florida, County of Orange

The undersigned hereby gives notice that improvement will be made to certain real property, and in accordance with Chapter 713, Florida Statutes, the following information is provided in this Notice of Commencement.

1. **Description of property** (legal description of the property, and street address if available)
HIGHLANDS AT LAKE CONWAY 45/11 LOT 27 1443 CONWAY ISLE CIRCLE
2. **General description of improvement**
Re Roof
3. **Owner information or Lessee information if the Lessee contracted for the improvement**
 Name Trudy Blakeman
 Address 1443 Conway Isle Circle Belle Isle FL 32809
 Interest in Property Owner
 Name and address of fee simple titleholder (if different from Owner listed above)
 Name N/A
 Address _____
4. **Contractor**
 Name Janney Construction Services Telephone Number 321 385 7863
 Address 640 N Semoran Blvd Orlando FL 32807
5. **Surety** (if applicable, a copy of the payment bond is attached)
 Name N/A Telephone Number _____
 Address _____ Amount of Bond \$ _____
6. **Lender**
 Name N/A Telephone Number _____
 Address _____
7. **Persons within the State of Florida designated by Owner upon whom notices or other documents may be served as provided by §713.13(1)(a)7, Florida Statutes.**
 Name N/A Telephone Number _____
 Address _____
8. **In addition to himself or herself, Owner designates the following to receive a copy of the Lienor's Notice as provided in §713.13(1)(b), Florida Statutes.**
 Name N/A Telephone Number _____
 Address _____
9. **Expiration date of notice of commencement** (the expiration date will be 1 year from the date of recording unless a different date is specified) _____

WARNING TO OWNER: ANY PAYMENTS MADE BY THE OWNER AFTER THE EXPIRATION OF THE NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713, PART I, SECTION 713.13, FLORIDA STATUTES, AND CAN 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 COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.

Trudy Blakeman _____
 Signature of Owner or Lessee, or Owner's or Lessee's Authorized Officer/Director/Partner/Manager Owner

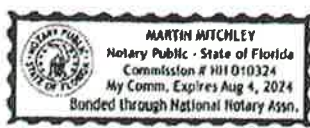
 Signatory's Title/Office

The foregoing instrument was acknowledged before me this 26 day of February 21 by Trudy Blakeman
 as _____ for _____
 Owner Name of party on behalf of whom instrument was executed
 Type of authority, e.g., officer, trustee, attorney in fact name of person

[Signature]
 Signature of Notary Public - State of Florida

Martin Mitchley
 Print, type, or stamp commissioned name of Notary Public

Personally Known _____ OR Produced ID
 Type of ID Produced FL ID



Form content revised: 01/23/14

State of FLORIDA, County of ORANGE
 Per §668.50, F.S., which defines and permits electronic signatures,
 I certify that this is a true copy of the document as reflected in the
 Official Records.
PHIL DIAMOND, COUNTY COMPTROLLER

Dorothy Caldwell 04/15/2021
 Deputy Comptroller Date





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

POWER OF ATTORNEY

Date: 4/14/21

Permit #: 2021-04-091

I hereby name and appoint Jon-Erik Perez of
(print name)

Janney Construction Services to be my lawful attorney-in-fact to act for
(company name)

me and apply to the City of Belle Isle Building Department for a roof permit
(type of permit)

for work to be performed at the following location:

1443 Conway Isle Circle, Belle Isle, FL 32809 32812 and
(street address)

to sign my name and do all things necessary to this appointment.

Certified Contractor's Printed Name: John C. Janney

License Number: CCC1329428

Certified Contractor's Signature: *John C. Janney*

The foregoing instrument was acknowledged before me this 14 days of April of 2021
 by John C. Janney who is personally known to me or who produced
 _____ as identification and who did not take an oath.

State of Florida
 County of Orange
Chloe M. Cooper
 Notary Public, Orange County, Florida





Residential Re-Roof Inspection Affidavit

3532 Maggie Blvd, Orlando, FL 32811 - P: 407.423.0504 - F: 407.423.3106

Permit #: 2021-04-091

I, John C. Janney hereby acknowledge that I personally inspected
 Roof deck nailing and/or Secondary water barrier work

at 1443 Conway Isle Circle
(Job Site Address)

and have determined that the work was done according to the Florida Building Code, Existing Building section 611.

I certify that my statements herein are true and accurate to the best of my belief and that I fully understand that making any false statements in writing with the intent to mislead a public servant in the performance of his or her official duty shall constitute a misdemeanor of the second degree pursuant to Section 837.06 F.S.

John C. Janney
Signature of Contractor

4/14/21
Date

John C. Janney
Printed Name of Contractor

CCC1329428
License #

License Type: General Building Residential Roofing Contractor
 or any individual certified in accordance with F.S. 468 to make such an inspection.

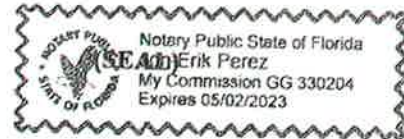
STATE OF FLORIDA

COUNTY OF Orange

Sworn to (or affirmed) and subscribed before me this 14 day of April, 2021,

by John C. Janney, who is Personally Known to me or has Produced
(type of identification) _____ as identification.

[Signature]
Signature of Notary Public
State of Florida



Print/Type/Stamp Name
of Notary Public



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

Product Approval Form

DATE: _____

PERMIT # 202104-091

PROJECT ADDRESS 1443 Conway Isle Circle Belle Isle, FL 32809 32812

As required by Florida Statute 553.842 and Florida Administrative Code 9B-72m, please provide the information and approval numbers of the building components listed below if they will be utilized on the building or structure. FL Approved products are listed online at www.floridabuilding.org or can be obtained from the local product supplier. The following information must be turned in with permit application and available onsite for inspections:

• **NOTE: The installation instructions must be posted on-site before your first inspection!!**

| Product Type | Manufacturer | Model/Series | FL Product Approval # | Product Type | Manufacturer | Model/Series | FL Product Approval # |
|------------------------------|--------------|--------------|-----------------------|-------------------------|------------------|--------------|-----------------------|
| EXTERIOR DOORS | | | | WALL PANELS | | | |
| Swinging | | | | Sliding | | | |
| Sliding | | | | Soffits | | | |
| Sectional/Rollup | | | | Storefront | | | |
| Other | | | | Glass Block | | | |
| | | | | Other | | | |
| WINDOWS | | | | ROOFING PRODUCTS | | | |
| Single/Dbf Hung | | | | Asphalt Shingles | | | |
| Horizontal Slider | | | | Non Struct Metal | | | |
| Casement | | | | Roofing Tiles | <u>Eagle</u> | | <u>7473.1</u> |
| Fixed | | | | Single Ply Roof | | | |
| Mullion | | | | Underlayment | <u>Polyglass</u> | | <u>5259.2</u> |
| Skylights | | | | Other | | | |
| Other | | | | | | | |
| STRUCTURAL COMPONENTS | | | | OTHER | | | |
| Wood Connectors | | | | | | | |
| Wood Anchors | | | | | | | |
| Truss Plates | | | | | | | |
| Insulation Forms | | | | | | | |
| Lintels | | | | | | | |
| Other | | | | | | | |

It is the applicant's responsibility to verify that specific products have been installed in accordance with their limitations and with the minimum required design pressures for the structure. Specific compliance will be verified during field inspections.

Applicant Signature 

Date 4/14/21



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Product Approval
USER: Public User

Product Approval Menu > Product or Application Search > Application List > Application Detail

OFFICE OF THE SECRETARY

| FL # | FL7473-R9 .1 | | | | | | | | |
|--|---|----------|------|------------|-----|------------------|-----|---------|-----|
| Application Type | Revision | | | | | | | | |
| Code Version | 2020 | | | | | | | | |
| Application Status | Approved | | | | | | | | |
| Comments | | | | | | | | | |
| Archived | <input type="checkbox"/> | | | | | | | | |
| Product Manufacturer | EAGLE ROOFING PRODUCTS, LLC | | | | | | | | |
| Address/Phone/Email | 1575 East CR 470 Sumterville, FL 33858 (800) 400-3245 annettes@eagleroofing.com | | | | | | | | |
| Authorized Signature | Annette Sindar annettes@eagleroofing.com | | | | | | | | |
| Technical Representative | Tyler Allwood | | | | | | | | |
| Address/Phone/Email | 1575 East Country Road 470 Sumterville, FL 33585 (941) 302-7826 tylera@eagleroofing.com | | | | | | | | |
| Quality Assurance Representative | | | | | | | | | |
| Address/Phone/Email | | | | | | | | | |
| Category | Roofing | | | | | | | | |
| Subcategory | Roofing Tiles | | | | | | | | |
| Compliance Method | Evaluation Report from a Florida Registered Architect or a Licensed Professional Engineer <input type="checkbox"/> 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., an Intertek Company | | | | | | | | |
| Quality Assurance Contract Expiration Date | 12/31/2023 | | | | | | | | |
| Validated By | John W. Knezevich, PE <input checked="" type="checkbox"/> Validation Checklist - Hardcopy Received | | | | | | | | |
| Certificate of Independence | FL7473 R9 COI 2020 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>20C</td> </tr> <tr> <td>FRSA/TRI (09-18)</td> <td>201</td> </tr> <tr> <td>SSTD 11</td> <td>19E</td> </tr> </tbody> </table> | Standard | Year | ASTM C1492 | 20C | FRSA/TRI (09-18) | 201 | SSTD 11 | 19E |
| Standard | Year | | | | | | | | |
| ASTM C1492 | 20C | | | | | | | | |
| FRSA/TRI (09-18) | 201 | | | | | | | | |
| SSTD 11 | 19E | | | | | | | | |

Equivalence of Product Standards
Certified By

Sections from the Code

Product Approval Method Method 1 Option D

Date Submitted 09/29/2020
 Date Validated 10/04/2020
 Date Pending FBC Approval 10/12/2020
 Date Approved 12/15/2020

Summary of Products

| FL # | Model, Number or Name | Description |
|--|-----------------------|--|
| 7473.1 | Eagle Roof Tiles | Low (flat), medium and high profile concrete roof t |
| 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 (09-18) for overturning moment limitations of mechanically attached tile roof systems and the tile-adhesive manufacturer's Product Approval for adhesive-set tile roof systems. | | Installation Instructions FL7473 R9 II 2020 09 28 FINAL ER EAGLE N HVHZ FL7473-R9.pdf Verified By: Robert J. M. Nieminen PE - 59166 Created by Independent Third Party: Yes Evaluation Reports FL7473 R9 AE 2020 09 28 FINAL ER EAGLE N HVHZ FL7473-R9.pdf Created by Independent Third Party: Yes |

[Back](#) [Next](#)

Contact Us :: 2601 Blair Stone Road, 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 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 Se Florida Statutes, effective October 1, 2012, licensees licensed under Chapter 455, F.S. must provide the Department with an email address if they have 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 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., p

Product Approval Accepts:



Credit Card
Safe





NEMO|etc.

Certificate of Authorization #32455
353 Christian Street, Unit #13
Oxford, CT 06478
(203) 262-9245

ENGINEER

EVALUATE

TEST

CONSULT

EVALUATION REPORT

Eagle Roofing Products, LLC
1575 East Country Road 470
Sumterville, FL 33585
(800) 400-3245

Evaluation Report E1322.09.06-R6

FL7473-R9

Date of Issuance: 02/24/2009

Revision 6: 09/28/2020

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. The product described herein has been evaluated for compliance with the **7th Edition (2020) Florida Building Code** sections noted herein.

DESCRIPTION: Eagle Roof Tiles

LABELING: Labeling shall be in accordance with the requirements of 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 or production facility location(s) changes, or Code provisions that relate to the product(s) change. Acceptance of our Evaluation Reports by the named client constitutes agreement to notify NEMO ETC, LLC of any changes to the product(s), the Quality Assurance or the production facility location(s). NEMO ETC, LLC requires a complete review of its Evaluation Report relative to updated Code requirements with each Code Cycle.

ADVERTISEMENT: The Florida Product Approval Number (FL#) preceded by the words "NEMO|etc. 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 5.

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 09/28/2020. This does not serve as an electronically signed document.

CERTIFICATION OF INDEPENDENCE:

1. NEMO ETC, LLC 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. NEMO ETC, LLC 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 NEMO ETC, LLC 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, LLC, have demonstrated compliance with the following sections of the 7th Edition (2020) 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:

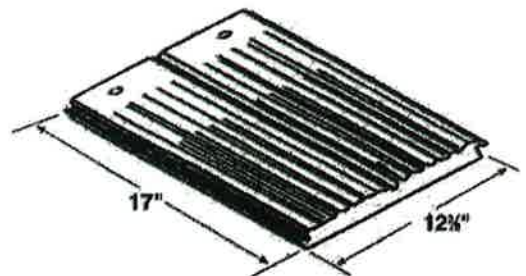
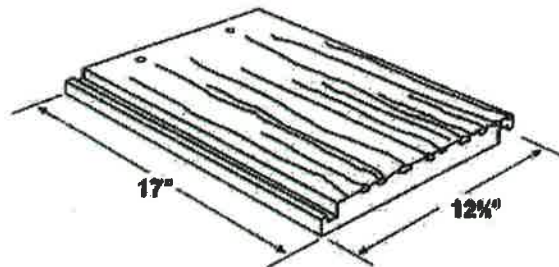
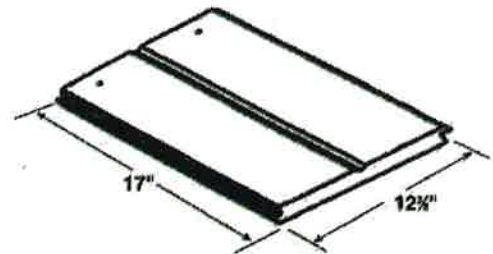
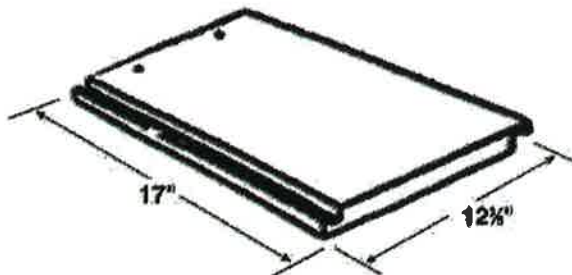
| Section | Property | Standard | Year |
|--------------------|--------------------|------------------|------------|
| 1507.3.5, R905.3.5 | Material standard | ASTM C1492 | 2003(2009) |
| 1507.3.7, R905.3.7 | Application | FRSA/TRI (09-18) | 2018 |
| 1504.2.1.1 | Overturning Moment | SSTD 11 | 1997 |

3. REFERENCES:

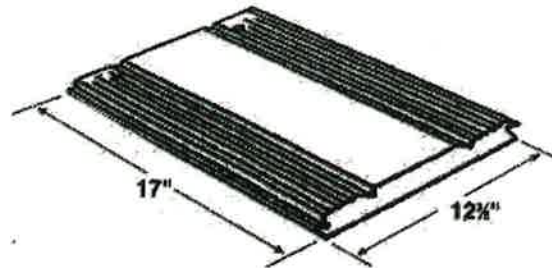
| Entity | Examination | Reference | Date |
|-----------------------------|--------------------------|----------------------------|------------|
| ATL (TST3782) | ASTM C1492 | RT0310.01-17, 02-17, 03-17 | 03/15/2017 |
| ATL (TST3782) | ASTM C1492 – Freeze/thaw | RT0706.01-17, 02-17, 03-17 | 09/25/2017 |
| Tile Roof Industry Alliance | SSTD 11 | Membership Letter | 11/29/2005 |
| Tile Roof Industry Alliance | Membership confirmation | tileroofing.org | Current |
| Intertek/ATI (QUA1844) | Quality Assurance | Inspection Report | 05/28/2020 |
| Intertek/ATI (QUA1844) | Quality Assurance | Florida BCIS | Current |

4. PRODUCT DESCRIPTION:

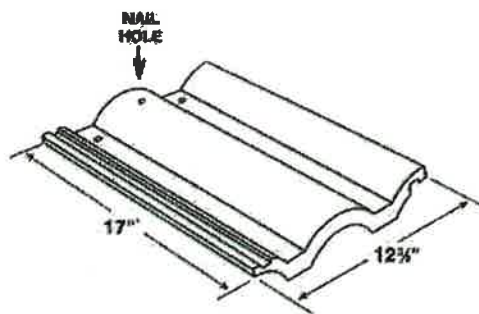
| Product | Material Standard | Plant(s) |
|-------------------------------|----------------------|-----------------|
| 4.1 Low Profile Concrete Tile | ASTM C1492, Type III | Sumterville, FL |



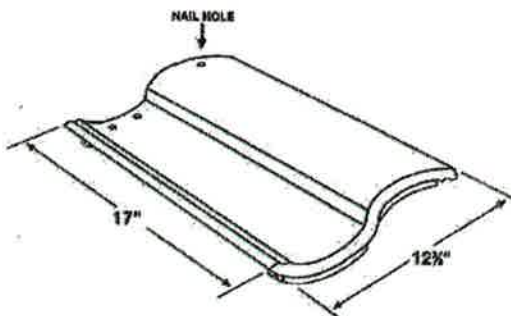
| Product | Material Standard | Plant(s) |
|-------------------------------|----------------------|-----------------|
| 4.1 Low Profile Concrete Tile | ASTM C1492, Type III | Sumterville, FL |



| | | |
|----------------------------------|---------------------|-----------------|
| 4.2 Medium Profile Concrete Tile | ASTM C1492, Type II | Sumterville, FL |
|----------------------------------|---------------------|-----------------|



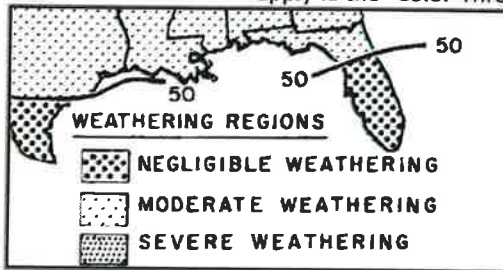
| | | |
|--------------------------------|---------------------|-----------------|
| 4.3 High Profile Concrete Tile | ASTM C1492, Type II | Sumterville, FL |
|--------------------------------|---------------------|-----------------|



5. LIMITATIONS:

- 5.1 This is a building code evaluation. Neither NEMO ETC, LLC 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 High Velocity Hurricane Zone jurisdictions (i.e., Broward and Miami-Dade Counties).
- 5.3 This Evaluation Report pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction.
- 5.4 This Evaluation Report does not include evaluation of fire classification. Refer to **FBC 1505** or **R902** for requirements and limitations regarding roof assembly fire classification. Refer to **FBC 2603** for requirements and limitations concerning the use of foam plastic insulation.
- 5.5 This Evaluation Report does not include evaluation of roof edge termination.
- 5.6 Refer to **FBC 1511** or **R908** for requirements and limitations regarding recover installations.

- 5.6.1 For mechanically attached components over existing roof decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing shall be in accordance with ANSI/SPRI FX-1 or Testing Application Standard TAS 105.
- 5.7 "Color-Bonded" or "Slurry-Coated" tiles are limited to use on projects in areas subjected to weathering indices of 50 or less (negligible weathering), as outlined in Figure 1 of ASTM C1492-03(2009), reproduced below for reference. This limitation does not apply to the "Color-Through" product offering.



- 5.8 All components in the roof assembly shall have quality assurance audit in accordance with 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 1507.3** and the **FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual**, Sixth Edition.
- 6.2 Underlayment:
Underlayment shall hold current 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 or adhesive-set) for use with the specific underlayment. 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 Florida High Wind Concrete and Clay Roof Tile Installation Manual**, Sixth Edition or the critical (highest) design pressure determined in accordance with **FBC 1609** or **FBC Residential Chapter 3**.
- 6.3 Tile Attachment:
 - 6.3.1 Mechanically Attached Tile:
Wind load resistance shall be in accordance with Table 3 of **FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual**, Sixth Edition to resist the Uplift Moment determined in Table 2HB, 2HC, 2HD, 2GB, 2GC or 2GD of **FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual**, Sixth Edition or **FBC 1609.5.3**.
 - 6.3.2 Mortar-Set Tile:
Wind load resistance shall be in accordance with Table 2HB, 2HC, 2HD, 2GB, 2GC or 2GD of **FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual**, Sixth Edition 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 2HB, 2HC, 2HD, 2GB, 2GC or 2GD of **FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual**, Sixth Edition 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.

| TILE ADHESIVES FOR ADHESIVE-SET TILE SYSTEMS | | |
|---|---|---------------------------------|
| Manufacturer | Product(s) | Florida Product Approval |
| DAP Foam, Inc. | "Touch N' Seal Storm Bond Roof Tile Adhesive" | FL14506 |
| | "Touch N' Seal Storm Bond 2 Two-Component Roof Tile Adhesive" | FL21374 |
| DuPont de Nemours, Inc. | "TILE BOND™ Roof Tile Adhesive" | FL22525 |
| ICP Adhesives & Sealants, Inc. | "POLYSET® AH-160" | FL6332 |
| | "POLYSET® RTA-1" | FL6276 |

6.3.4 Hip and Ridge Tile:

Tile shall be installed in accordance with **FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual**, Sixth Edition. 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 Florida High Wind Concrete and Clay Roof Tile Installation Manual**, Sixth Edition.

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.



FLORIDA

(LOCATED ON UNDERSIDE OF TILE)

EAGLE FL

(LOCATED ON FRONTSIDE OF TILE)

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 to properly evaluate the installation of this product.

9. MANUFACTURING PLANTS:

Contact the named QA entity for manufacturing facilities covered by **F.A.C. Rule 61G20-3** QA requirements. Refer to Section 4 herein for products and production locations having met codified material standards.

10. QUALITY ASSURANCE ENTITY:

Architectural Testing, Inc., and Intertek Company – QUA1844; (847) 718-6307; naura.alcheikh@intertek.com

- END OF EVALUATION REPORT -

¹ ASTM C1492-03(2009), Standard Specification for Concrete Roof Tile, © ASTM International



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Product Approval
USER: Public User

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

OFFICE OF THE SECRETARY

| FL # | FL5259-R32 . 2 | | | | | | | | | | | | | | | | | | |
|---|--|-----------------|-------------|------------|------|-----------|------|------------|------|------------|------|------------|------|------------|------|------------|------|---------|------|
| Application Type | Revision | | | | | | | | | | | | | | | | | | |
| Code Version | 2020 | | | | | | | | | | | | | | | | | | |
| Application Status | Approved | | | | | | | | | | | | | | | | | | |
| Comments | | | | | | | | | | | | | | | | | | | |
| Archived | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | |
| Product Manufacturer | POLYGLASS USA | | | | | | | | | | | | | | | | | | |
| Address/Phone/Email | 1111 W. Newport Center Drive Deerfield Beach, FL 33442 (954) 233-1330 Ext 242 malpert@polyglass.com | | | | | | | | | | | | | | | | | | |
| Authorized Signature | Maury Alpert malpert@polyglass.com | | | | | | | | | | | | | | | | | | |
| Technical Representative | TECH REP | | | | | | | | | | | | | | | | | | |
| Address/Phone/Email | 1111 West Newport Center Drive Deerfield Beach, FL 33442 (866) 802-8017 uspolyglasstechnical@polyglass.com | | | | | | | | | | | | | | | | | | |
| Quality Assurance Representative | QA REP | | | | | | | | | | | | | | | | | | |
| Address/Phone/Email | 1111 West Newport Center Drive Deerfield Beach, FL 33442 (888) 410-1375 uspolyglasstechnical@polyglass.com | | | | | | | | | | | | | | | | | | |
| 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 Nieminen | | | | | | | | | | | | | | | | | | |
| Florida License | PE-59166 | | | | | | | | | | | | | | | | | | |
| Quality Assurance Entity | UL LLC | | | | | | | | | | | | | | | | | | |
| Quality Assurance Contract Expiration Date | 12/23/2023 | | | | | | | | | | | | | | | | | | |
| Validated By | John W. Knezevich, PE <input type="checkbox"/> Validation Checklist - Hardcopy Received | | | | | | | | | | | | | | | | | | |
| Certificate of Independence | FL5259_R32_COI_2020_01_COI_NIEMINEN.pdf | | | | | | | | | | | | | | | | | | |
| Referenced Standard and Year (of Standard) | <table border="0"> <thead> <tr> <th><u>Standard</u></th> <th><u>Year</u></th> </tr> </thead> <tbody> <tr><td>ASTM D1970</td><td>2015</td></tr> <tr><td>ASTM D226</td><td>2009</td></tr> <tr><td>ASTM D4798</td><td>2011</td></tr> <tr><td>ASTM D6163</td><td>2015</td></tr> <tr><td>ASTM D6164</td><td>2011</td></tr> <tr><td>ASTM D6222</td><td>2011</td></tr> <tr><td>ASTM D6509</td><td>2015</td></tr> <tr><td>FM 4474</td><td>2011</td></tr> </tbody> </table> | <u>Standard</u> | <u>Year</u> | ASTM D1970 | 2015 | ASTM D226 | 2009 | ASTM D4798 | 2011 | ASTM D6163 | 2015 | ASTM D6164 | 2011 | ASTM D6222 | 2011 | ASTM D6509 | 2015 | FM 4474 | 2011 |
| <u>Standard</u> | <u>Year</u> | | | | | | | | | | | | | | | | | | |
| ASTM D1970 | 2015 | | | | | | | | | | | | | | | | | | |
| ASTM D226 | 2009 | | | | | | | | | | | | | | | | | | |
| ASTM D4798 | 2011 | | | | | | | | | | | | | | | | | | |
| ASTM D6163 | 2015 | | | | | | | | | | | | | | | | | | |
| ASTM D6164 | 2011 | | | | | | | | | | | | | | | | | | |
| ASTM D6222 | 2011 | | | | | | | | | | | | | | | | | | |
| ASTM D6509 | 2015 | | | | | | | | | | | | | | | | | | |
| FM 4474 | 2011 | | | | | | | | | | | | | | | | | | |

Equivalence of Product Standards
Certified By

Sections from the Code

Product Approval Method: Method 1 Option D
Date Submitted: 12/21/2020
Date Validated: 12/21/2020
Date Pending FBC Approval: 12/26/2020
Date Approved: 02/09/2021

Summary of Products

| FL # | Model, Number or Name | Description |
|---|---|--|
| 5259.1 | Polyglass Roof Underlayments (HVHZ) | Polyglass roof underlayments for use in FBC HVHZ jurisdictions. |
| Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: No Impact Resistant: N/A Design Pressure: N/A Other: Refer to ER Section 5 for Limits of Use. | | Installation Instructions FL5259 R32 II 2020 12 21 FINAL ER PLYG UNDERLAYMENTS FL5259-R32 (HVHZ).pdf Verified By: Robert Nieminen PE-59166 Created by Independent Third Party: Yes Evaluation Reports FL5259 R32 AE 2020 12 21 FINAL ER PLYG UNDERLAYMENTS FL5259-R32 (HVHZ).pdf Created by Independent Third Party: Yes |
| 5259.2 | Polyglass Roof Underlayments (non-HVHZ) | Polyglass roof underlayments, for use in FBC non-HVHZ jurisdictions. |
| Limits of Use Approved for use in HVHZ: No Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: +N/A/-622.5 Other: 1.) The design pressure in this application relates to one particular underlayment system for use in tile roof systems. Refer to ER Section 5.8.3 for other systems and associated maximum design pressures. 2.) Refer to ER Section 5 for other limits of use. | | Installation Instructions FL5259 R32 II 2020 12 21 FINAL ER PLYG UNDERLAYMENTS FL5259-R32 (NON-HVHZ).pdf Verified By: Robert Nieminen PE-59166 Created by Independent Third Party: Yes Evaluation Reports FL5259 R32 AE 2020 12 21 FINAL ER PLYG UNDERLAYMENTS FL5259-R32 (NON-HVHZ).pdf Created by Independent Third Party: Yes |

[Back](#) [Next](#)

Contact Us :: 2601 Blair Stone Road, Tallahassee FL 32399 Phone: 850-487-1824

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Product Approval Accepts:



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Safe





NEMO|etc.

Certificate of Authorization #32455
353 Christian Street, Unit #13
Oxford, CT 06478
(203) 262-9245

ENGINEER

EVALUATE

TEST

CONSULT

EVALUATION REPORT

Polyglass USA, Inc.
1111 West Newport Center Drive
Deerfield Beach, FL 33442
(954) 233-1330

**Evaluation Report P12060.02.09-R28
FL5259-R32 (NON-HVHZ)
Date of Issuance: 02/24/2009
Revision 28: 12/21/2020**

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 **7th Edition (2020) Florida Building Code** sections noted herein.

DESCRIPTION: Polyglass Roof Underlayment, for use in FBC non-HVHZ jurisdictions

LABELING: Labeling shall be in accordance with the requirements the Accredited Quality Assurance Agency noted herein and FBC 1507.1.1.

CONTINUED COMPLIANCE: This Evaluation Report is valid until such time as the named product(s) changes, the referenced Quality Assurance or production facility location(s) changes, or Code provisions that relate to the product(s) change. Acceptance of our Evaluation Reports by the named client constitutes agreement to notify NEMO ETC, LLC of any changes to the product(s), the Quality Assurance or the production facility location(s). NEMO ETC, LLC requires a complete review of its Evaluation Report relative to updated Code requirements with each Code Cycle.

ADVERTISEMENT: The Florida Product Approval Number (FL#) preceded by the words "NEMO|etc. 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 17.

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 12/21/2020. This does not serve as an electronically signed document.

CERTIFICATION OF INDEPENDENCE:

1. NEMO ETC, LLC 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. NEMO ETC, LLC 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 NEMO ETC, LLC 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: Roof Underlayments, as produced by Polyglass USA, Inc., have demonstrated compliance with the following sections of the 7th Edition (2020) 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 |
|---|------------------------|-------------------------|------|
| 1504.3.1 | Wind resistance | FM 4474 | 2011 |
| 1504.3.1 | Wind resistance | UL 1897 | 2015 |
| 1507.1.1 / R905.1.1 | Material standard | ASTM D226 | 2009 |
| 1507.1.1, 1507.2.4, 1507.2.9.2 / R905.1.1, R905.2.8.2 | Material standard | ASTM D1970 | 2015 |
| 1507.3.3 / R905.3.3 | Material standard | FRSA/TRI, Sixth Edition | 2018 |
| 1507.11.2 / R905.11.2 | Material standard | ASTM D6163 | 2015 |
| 1507.11.2 / R905.11.2 | Material standard | ASTM D6164 | 2011 |
| 1507.11.2 / R905.11.2 | Material standard | ASTM D6222 | 2011 |
| 1507.11.2 / R905.11.2 | Material standard | ASTM D6509 | 2015 |
| TAS 110 | Accelerated Weathering | ASTM D4798 | 2011 |

3. REFERENCES:

| Entity | Examination | Reference | Date | Entity | Examination | Reference | Date |
|----------------|------------------------|-------------------|------------|-----------------|--------------------------|---------------------------|------------|
| ERD (TST 6049) | Wind Uplift | 11757.04.01-1-R1 | 4/25/2001 | ERD (TST 6049) | ASTM D1623, TAS 103 | PLYG-SC10130.06.16-2 | 6/27/2016 |
| ERD (TST 6049) | Wind Uplift | 11757.08.01-1 | 8/13/2001 | ERD (TST 6049) | FRSA/TRI | PLYG-SC10130.06.16-3 | 6/27/2016 |
| ERD (TST 6049) | Wind Uplift | 11776.06.02 | 1/16/2003 | ERD (TST 6049) | ASTM D1970, D4798 | PLYG-SC8080.07.16 | 7/16/2016 |
| ERD (TST 6049) | Wind Uplift | P1740.01.07 | 1/4/2007 | ERD (TST 6049) | UL1897 | PLYG-SC12025.10.16 | 10/12/2016 |
| ERD (TST 6049) | Wind Uplift | P1738.02.07-R2 | 2/5/2007 | ERD (TST 6049) | FRSA/TRI (tile slippage) | PLYG-SC13040.12.16 | 12/27/2016 |
| ERD (TST 6049) | Wind Uplift | P9260.03.08 | 3/21/2008 | ERD (TST 6049) | FRSA/TRI (tile slippage) | PLYG-SC12115.08.17 | 8/8/2017 |
| ERD (TST 6049) | Wind Uplift | P30540.11.09-R1 | 11/23/2009 | ERD (TST 6049) | FRSA/TRI | PLYG-SC13035.08.17 | 10/31/2017 |
| ERD (TST 6049) | ASTM D1623, TAS 103 | P11030.11.09-1 | 11/30/2009 | FM (TST 1867) | Wind Uplift | FM 3004091 | 1/12/2000 |
| ERD (TST 6049) | TAS 117(B), TAS 114(C) | P11030.11.09-2 | 11/30/2009 | NEMO (TST 6049) | ASTM D1970 | 4-PLYG-18-004.03.18 | 3/29/2018 |
| ERD (TST 6049) | ASTM D4977 | P11030.11.09-3 | 11/30/2009 | NEMO (TST 6049) | ASTM D1623, TAS 103 | 4S-ICP-18-001.07.18-R1 | 7/23/2018 |
| ERD (TST 6049) | ASTM D1970 | P33360.06.10 | 6/25/2010 | NEMO (TST 6049) | Wind Uplift | 4L-PLYG-18-003.01.19 | 1/11/2019 |
| ERD (TST 6049) | FRSA/TRI | P33370.03.11 | 3/2/2011 | NEMO (TST 6049) | ASTM D6163 | 4S-PLYG-18-002.01.19-A | 1/24/2019 |
| ERD (TST 6049) | ASTM D1623, TAS 103 | P33370.04.11 | 4/26/2011 | NEMO (TST 6049) | ASTM D6222 | 4S-PLYG-18-002.05.19-C | 5/20/2019 |
| ERD (TST 6049) | ASTM D1970, D4798 | P37300.10.11 | 10/19/2011 | NEMO (TST 6049) | FRSA/TRI | 4S-PLYG-18-004.10.19-G | 10/8/2019 |
| ERD (TST 6049) | FRSA/TRI | P40390.08.12-1 | 8/6/2012 | NEMO (TST 6049) | FRSA/TRI | 4S-PLYG-18-004.10.19-I | 10/8/2019 |
| ERD (TST 6049) | ASTM D1623, TAS 103 | P40390.08.12-2 | 8/7/2012 | NEMO (TST 6049) | FRSA/TRI | 4S-PLYG-18-004.10.19-L | 10/9/2019 |
| ERD (TST 6049) | ASTM D1623, TAS 103 | C41420.09.12-3 | 9/11/2012 | NEMO (TST 6049) | FRSA/TRI | 4S-PLYG-18-004.12.19-F | 12/18/2019 |
| ERD (TST 6049) | ASTM D6509 | P37590.03.13-1-R1 | 2/5/2013 | NEMO (TST 6049) | FRSA/TRI | 4J-PLYG-19-SSUDL-02.A | 1/2/2020 |
| ERD (TST 6049) | TAS 114(J) | P39680.03.13 | 3/4/2013 | NEMO (TST 6049) | ASTM D6222 | 4S-PLYG-18-002.12.19-K-R1 | 1/7/2020 |
| ERD (TST 6049) | ASTM D6164 | P37590.03.13-3A | 3/6/2013 | NEMO (TST 6049) | ASTM D1970, D4798 | 4S-PLYG-18-004.01.20.H | 1/14/2020 |
| ERD (TST 6049) | ASTM D6164 | P37590.07.13-1 | 7/2/2013 | NEMO (TST 6049) | ASTM D1970, D4798 | 4S-PLYG-18-004.01.20.K | 1/14/2020 |
| ERD (TST 6049) | Wind Uplift | P41630.08.13 | 8/6/2013 | NEMO (TST 6049) | FRSA/TRI (tile slippage) | 4S-PLYG-18-004.01.20.A | 1/16/2020 |
| ERD (TST 6049) | ASTM D4601 | P45940.09.13 | 9/4/2013 | NEMO (TST 6049) | ASTM D6164 | 4S-PLYG-18-004.01.20.B | 1/16/2020 |
| ERD (TST 6049) | ASTM D4601 | P45940.09.13 | 9/4/2013 | NEMO (TST 6049) | FRSA/TRI | PLYG-SC15855.05.20.A | 5/29/2020 |
| ERD (TST 6049) | ASTM D1970 (adhesion) | P45370.09.13 | 9/18/2013 | NEMO (TST 6049) | FRSA/TRI | 4J-PLYG-20-SSUDL-01 | 7/6/2020 |
| ERD (TST 6049) | Wind Uplift | P11751.05.03-R1 | 11/26/2013 | NEMO (TST 6049) | ASTM D6222 | 4q-PLYG-19-SSMBB-05.A | 7/23/2020 |
| ERD (TST 6049) | Wind Uplift | P11781.11.03-R1 | 11/26/2013 | NEMO (TST 6049) | ASTM D4798, D1623 | 4J-PLYG-19-SSUDL-05.A | 9/10/2020 |
| ERD (TST 6049) | ASTM D1623, TAS 103 | P45270.05.14 | 5/12/2014 | NEMO (TST 6049) | ASTM D1970 | 4J-PLYG-20-SSUDL-05.A | 9/30/2020 |
| ERD (TST 6049) | ASTM D1623, TAS 103 | 6020.09.14-5 | 9/8/2014 | NEMO (TST 6049) | FRSA/TRI | 4J-PLYG-20-SSUDL-05.C | 9/30/2020 |
| ERD (TST 6049) | ASTM D1623, TAS 103 | 6020.09.14-6 | 9/8/2014 | NEMO (TST 6049) | FRSA/TRI | 4J-PLYG-20-SSUDL-11.A | 10/21/2020 |
| ERD (TST 6049) | ASTM D1623 | P46520.10.14 | 10/3/2014 | NEMO (TST 6049) | ASTM D1970, D4798 | 4S-PLYG-18-004.12.19.D | 10/27/2020 |
| ERD (TST 6049) | FRSA/TRI | P44360.10.14-R1 | 10/7/2014 | NEMO (TST 6049) | FRSA/TRI | 4J-PLYG-19-SSUDL-01.A | 11/18/2020 |

NEMO ETC, LLC.

Certificate of Authorization #32455

7TH EDITION (2020) FBC NON-HVHZ EVALUATION
 Polyglass Roof Underlayments

Evaluation Report P12060.02.09-R28
 FL5259-R32 (NON-HVHZ)
 Revision 28: 12/21/2020



NEMO|etc.

| Entity | Examination | Reference | Date | Entity | Examination | Reference | Date |
|----------------|-------------------|----------------------|------------|-----------------|---------------------|---------------------------|------------|
| ERD (TST 6049) | ASTM D1970, D4798 | P43290.10.14 | 10/17/2014 | NEMO (TST 6049) | ASTM D1623, TAS 103 | 4p-ICP-20-SSLAP-01.A | 12/15/2020 |
| ERD (TST 6049) | FRSA/TRI | PLYG-SC7550.03.15 | 3/24/2015 | Polyglass USA | P/L Affidavit | Mule-Hide Cross Ltg | 03/01/2008 |
| ERD (TST 6049) | ASTM D1623 | P40390.04.15 | 4/3/2015 | Polyglass USA | Materials Affidavit | Polystick Compound | 08/18/2011 |
| ERD (TST 6049) | Wind Uplift | PLYG-SC8905.05.16-1 | 5/17/2016 | UL (QUA9625) | Quality Control | Service Confirmation (FL) | 09/13/2018 |
| ERD (TST 6049) | ASTM D1970, D4798 | PLYG-SC10130.06.16-1 | 6/27/2016 | UL (QUA9625) | Quality Control | Service Confirmation (TX) | 11/07/2019 |
| | | | | UL (QUA9625) | Quality Control | Florida BCIS | Current |

4. PRODUCT DESCRIPTION:

| | Product | Material Standard | Plant(s) | Description |
|------|---------------------------------|------------------------------|------------|--|
| 4.1 | Elastobase | ASTM D6163 | FL | Fiberglass-reinforced, SBS modified bitumen base sheet |
| 4.2 | Elastobase P | ASTM D6164 | FL | Polyester-reinforced, SBS modified bitumen base sheet |
| 4.3 | Elastoflex S6 G | ASTM D6164 FRSA/TRI 09-18 | FL, PA | Polyester-reinforced, SBS modified bitumen cap sheet |
| 4.4 | Elastoflex S6 G FR | ASTM D6164 FRSA/TRI 09-18 | FL | Polyester-reinforced, SBS modified bitumen cap sheet |
| 4.5 | HydraGuard Dual Pro | ASTM D1970 | FL | Nominal 60-mil thick dual-layer rubberized asphalt waterproofing membrane, fiberglass reinforced, with a polyester fabric surface |
| 4.6 | HydraGuard Tile Pro | ASTM D1970 FRSA/TRI 09-18 | FL | Nominal 60-mil thick dual-layer rubberized asphalt waterproofing membrane, fiberglass reinforced, with a polyester fabric surface |
| 4.7 | Mule-Hide SA-APP Cap Sheet | ASTM D6222 FRSA/TRI 09-18 | FL | Polyester-reinforced, APP modified bitumen cap sheet |
| 4.8 | Mule-Hide SA-APP Cap Sheet (FR) | ASTM D6222 FRSA/TRI 09-18 | FL | Polyester-reinforced, APP modified bitumen cap sheet |
| 4.9 | Polyflex G | ASTM D6222 FRSA/TRI 09-18 | FL | Polyester-reinforced, APP modified bitumen cap sheet for use as an alternate to Heat Applied "Cap Sheet" in the "Two Ply System" from FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual, Sixth Edition beneath mechanically fastened or adhered tile roof systems |
| 4.10 | Polyflex G FR | ASTM D6222 FRSA/TRI 09-18 | FL | Polyester-reinforced, APP modified bitumen cap sheet for use as an alternate to Heat Applied "Cap Sheet" in the "Two Ply System" from FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual, Sixth Edition beneath mechanically fastened tile roof systems |
| 4.11 | Polyflex SA P | ASTM D6222 FRSA/TRI 09-18 | FL, TX | Polyester-reinforced, APP modified bitumen cap sheet |
| 4.12 | Polyflex SA P FR | ASTM D6222 FRSA/TRI 09-18 | FL, TX | Polyester-reinforced, APP modified bitumen cap sheet |
| 4.13 | Polyglass Base | ASTM D6509 | FL | Fiberglass-reinforced, APP modified bitumen base sheet |
| 4.14 | Polyglass G2 Base Sheet | ASTM D4601 | AL | Fiberglass-reinforced, asphaltic base sheet |
| 4.15 | Polystick IR-Xe | ASTM D1970 | FL, PA, TX | Nominal 60-mil thick rubberized asphalt waterproofing membrane, glass fiber reinforced, with an aggregate surface |

4. PRODUCT DESCRIPTION:

| | Product | Material Standard | Plant(s) | Description |
|------|--------------------|------------------------------|-------------------|---|
| 4.16 | Polystick MTS Plus | ASTM D1970 FRSA/TRI 09-18 | FL, NV, PA, TX | Nominal 60-mil thick rubberized asphalt waterproofing membrane, glass fiber reinforced, surfaced with polyolefinic film surface |
| 4.17 | Polystick MU-X | ASTM D1970 ¹ | FL, NV, PA | Nominal 54-mil thick dual-layer rubberized asphalt waterproofing membrane, fiberglass reinforced, with a polypropylene film surface |
| 4.18 | Polystick TU Max | ASTM D1970 FRSA/TRI 09-18 | FL, PA, TX | Nominal 60-mil thick rubberized asphalt waterproofing membrane with a 190 g/m ² polyester fabric surface |
| 4.19 | Polystick TU P | FRSA/TRI 09-18 | FL, PA, TX | Nominal 130-mil thick rubberized asphalt waterproofing membrane, glass-fiber/polyester reinforced, with a granular surface |
| 4.20 | Polystick TU Plus | ASTM D1970 FRSA/TRI 09-18 | FL, PA, TX | Nominal 80-mil thick rubberized asphalt waterproofing membrane, glass fiber reinforced, with a polyester fabric surface |
| 4.21 | Polystick XFR | ASTM D1970 FRSA/TRI 09-18 | NV, TX | Nominal 80-mil thick rubberized asphalt waterproofing membrane, glass fiber reinforced, surfaced with a textured film surface |

5. LIMITATIONS:

- 5.1 This is a Building Code Evaluation. Neither NEMO ETC, LLC 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 High Velocity Hurricane Zone jurisdictions (i.e., Broward and Miami-Dade Counties).
- 5.3 This Evaluation Report pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction.
- 5.4 This Evaluation Report does not include evaluation of fire classification. Refer to **FBC 1505** for requirements and limitations regarding roof assembly fire classification. Refer to **FBC 2603** for requirements and limitations concerning the use of foam plastic insulation.
- 5.5 **Polyglass 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 Authority Having Jurisdiction for approval based on this evaluation combined with supporting data for the prepared roof covering.

¹ Polystick MU-X has been found through comparative testing to have a lesser coefficient of friction than ASTM D226 roofing felt in a dry condition, tested at standard laboratory conditions. Agreement between purchaser and seller, as set forth in Section 4.3, Note 1 of ASTM D1970-15, should be established as to slip resistance.



NEMO|etc.

5.6 Allowable Roof Covers:

TABLE 1: ROOF COVER OPTIONS

| <i>FBC Section:</i> | <i>1507.2</i> | <i>1507.3</i> | | <i>1507.4 and 1507.5</i> | <i>1507.7</i> | <i>1507.8 and 1507.9</i> |
|---------------------------------|-------------------------------------|-----------------------------------|-----------------------------------|-------------------------------------|-------------------------------------|--|
| Underlayment | Asphalt Shingles | Clay and Concrete Tile | | Metal | Slate or Slate-Type Shingles | Wood |
| | | Mechanical Attach | Adhesive-Set | | | |
| Elastobase | Yes (Alternate to D226, Type II) | Yes (as Base Sheet, See 5.8.3) | Yes (as Base Sheet, See 5.8.3) | Yes (Alternate to D226, Type II) | Yes (Alternate to D226, Type II) | Yes (Alternate to D226, Type II) |
| Elastobase P | Yes (Alternate to D226, Type II) | Yes (as Base Sheet, See 5.8.3) | Yes (as Base Sheet, See 5.8.3) | Yes (Alternate to D226, Type II) | Yes (Alternate to D226, Type II) | Yes (Alternate to D226, Type II) |
| Polyglass Base | No | Yes (as Base Sheet, See 5.8.3) | Yes (as Base Sheet, See 5.8.3) | No | No | No |
| Polyglass G2 Base | No | Yes (as Base Sheet, See 5.8.3) | Yes (as Base Sheet, See 5.8.3) | No | No | No |
| Elastoflex S6 G | No | Yes | Yes (See 5.6.1) | No | No | No |
| Elastoflex S6 G FR | No | Yes | No | No | No | No |
| HydraGuard Dual Pro | Yes | No | No | Yes | Yes | Yes (joint strips, 1507.1.1.3 / R905.1.1.3) |
| HydraGuard Tile Pro | Yes | Yes | Yes (See 5.6.1) | Yes | Yes | Yes (joint strips, 1507.1.1.3 / R905.1.1.3) |
| Mule-Hide SA-APP Cap Sheet | No | Yes | Yes (See 5.6.1) | No | No | No |
| Mule-Hide SA-APP Cap Sheet (FR) | No | Yes | Yes (See 5.6.1) | No | No | No |
| Polyflex G | No | Yes | Yes (See 5.6.1) | No | No | No |
| Polyflex G FR | No | Yes | No | No | No | No |
| Polyflex SA P | No | Yes | Yes (See 5.6.1) | No | No | No |
| Polyflex SA P FR | No | Yes | Yes (See 5.6.1) | No | No | No |
| Polystick IR-Xe | Yes | No | No | No | Yes | Yes (joint strips, 1507.1.1.3 / R905.1.1.3) |
| Polystick MTS Plus | Yes | Yes | No | Yes | Yes | Yes (joint strips, 1507.1.1.3 / R905.1.1.3) |
| Polystick MU-X | Yes | No | No | Yes | Yes | Yes (joint strips, 1507.1.1.3 / R905.1.1.3) |
| Polystick TU Max | No | Yes | Yes (See 5.6.1) | Yes | No | Yes (joint strips, 1507.1.1.3 / R905.1.1.3) |
| Polystick TU P | No | Yes | Yes (See 5.6.1) | No | No | Yes (joint strips, 1507.1.1.3 / R905.1.1.3) |
| Polystick TU Plus | Yes | Yes | Yes (See 5.6.1) | Yes | Yes | Yes (joint strips, 1507.1.1.3 / R905.1.1.3) |
| Polystick XFR | Yes | Yes | No | Yes | Yes | Yes (joint strips, 1507.1.1.3 / R905.1.1.3) |

NEMO ETC, LLC.
Certificate of Authorization #32455

7TH EDITION (2020) FBC NON-HVHZ EVALUATION
Polyglass Roof Underlayments

Evaluation Report P12060.02.09-R2B
FL5259-R32 (NON-HVHZ)
Revision 28: 12/21/2020
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5.6.1 Adhesive-set tile is limited to use of the following underlayment / tile-adhesive combinations.

| TABLE 1A: ALLOWABLE UNDERLAYMENT / TILE-ADHESIVE COMBINATIONS² | | |
|---|---|---------------------------------|
| Underlayment | Adhesive | Florida Product Approval |
| Polystick TU Max or Polystick TU Plus | DAP Foam "Touch 'n Seal StormBond Roof Tile Adhesive" | FL14506 |
| HydraGuard Tile Pro, Polyflex SA P, Polystick TU Max, Polystick TU P or Polystick TU Plus | Dupont "Tile Bond™ Roof Tile Adhesive" | FL22525 |
| Elastoflex S6 G, HydraGuard Tile Pro, Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex G, Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus | ICP Adhesives and Sealants "Polyset® AH-160" | FL6332 |
| Elastoflex S6 G, HydraGuard Tile Pro, Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex G, Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus | ICP Adhesives and Sealants "Polyset® RTA-1" | FL6276 |

5.7 Allowable Substrates:

| TABLE 2: SUBSTRATE OPTIONS FOR ADHERED UNDERLAYMENTS | | | | |
|---|--------------------|---|--------------------------------|---|
| Underlayment | Application | Substrates (designed to meet wind loads for project) | | |
| | | Type | Primer | Material(s) |
| HydraGuard Dual Pro, HydraGuard Tile Pro, Polystick IR-Xe, Polystick MTS Plus, Polystick MU-X, Polystick TU Max, Polystick TU P, Polystick TU Plus, Polystick XFR, Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P or Polyflex SA P FR | self-adhering | Deck / sheathing | (Optional) ASTM D41 | plywood, OSB, Southern Yellow Pine or Huber Engineered Woods "ZIP System" Panels |
| | | | ASTM D41 | structural concrete |
| | | Insulation | (Optional) ASTM D41 or WB-3000 | ASTM C1289 Type II Class 1 polyisocyanurate, ASTM C1289 Type V polyisocyanurate-composite, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board |
| | | Base Sheet | N/A | ASTM D226, Type II felt, Elastobase, Elastobase P or Mule-Hide Nail Base |
| Elastoflex S6 G or Elastoflex S6 G FR | hot asphalt | Deck | ASTM D41 | structural concrete |
| | | Insulation | (Optional) ASTM D41 | DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board |
| | | Base Sheet | N/A | ASTM D226, Type II felt, Elastobase, Elastobase P, Mule-Hide Nail Base or Polyglass G2 Base |
| Polyflex G or Polyflex G FR | torch-applied | Deck | ASTM D41 | structural concrete |
| | | Insulation | (Optional) ASTM D41 | DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board |
| | | Base Sheet | N/A | Elastobase, Elastobase P, Mule-Hide Nail Base, Polyglass G2 Base or Polyglass Base |

² Refer to Tile Manufacturer's or Adhesive Manufacturer's Florida Product Approval for Overturning Moment Resistance Performance.

5.8 **Attachment Limitations:**

5.8.1 For use under mechanically attached NON-TILE prepared roof coverings, attachment shall be in accordance with the manufacturer's installation instructions, but – for mechanically attached underlayments or base sheets - not less than **FBC 1507.1.1 or R905.1.1**.

5.8.2 For use under tile roof systems, attachment shall be in accordance with the manufacturer's installation instructions, but – for mechanically attached base sheets - not less than:

- **FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual**, Sixth Edition, Appendix A, Table 1 (for Two-Ply Asphalt Applied Hot Mop Underlayment)
- or
- Section 5.8.3 herein (for other underlayment systems).

5.8.3 **Wind Resistance for Underlayment Systems in Tile Roof Applications:**

The following wind uplift limitations apply to underlayment systems that are not prescriptive in the **FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual**, Sixth Edition. The 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).

5.8.3.1 **Direct-to-Deck:**

The maximum design pressure for the selected assembly shall meet or exceed that required under **FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual**, Sixth Edition, Appendix A, Table 1A or the critical (highest) design pressure determined in accordance with **FBC 1609** or **FBC Residential Chapter 3**.

#1 **Maximum Design Pressure = -52.5 psf:**

Deck: APA rated, 7/16 CAT, 0.418 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.

Joints: Min. 4-inch wide strips of Elastoflex SA-V over all OSB joints

Base Ply: Polystick MTS Plus, self-adhered.

Underlayment: Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus, self-adhered.

#2 **Maximum Design Pressure = -90 psf:**

Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.

Primer: None

Base Ply: (Optional) Polystick MTS Plus, self-adhered.

Underlayment: Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus, self-adhered.

#3 **Maximum Design Pressure = -97.5 psf:**

Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.

Primer: PG100 or ASTM D41

Base Ply: (Optional) Polystick MTS Plus, self-adhered.

Underlayment: Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus, self-adhered and back-nailed within the selvage-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.

#4 **Maximum Design Pressure = -105 psf:**

Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.

Primer: WB-3000

Base Ply: (Optional) Polystick MTS Plus, self-adhered.

Underlayment: Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus, self-adhered and back-nailed within the selvage-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 Maximum Design Pressure = -135 psf:

Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
 Primer: (Optional) PG100 or ASTM D41
 Base Ply: (Optional) Polystick MTS Plus, self-adhered.
 Joints: Min. 4-inch wide strips of Elastoflex SA-V over all plywood joints.
 Underlayment: Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus, self-adhered.

#6 Maximum Design Pressure = -315 psf:

Deck: Structural concrete to meet project requirements to satisfaction of Authority Having Jurisdiction.
 Primer: PG100 or ASTM D41
 Base Ply: (Optional) Polystick MTS Plus, self-adhered.
 Underlayment: HydraGuard Tile Pro, Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus, self-adhered.

#7 Maximum Design Pressure = -622.5 psf:

Deck: Structural concrete to meet project requirements to satisfaction of Authority Having Jurisdiction.
 Primer: PG100 or ASTM D41
 Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt or Polyflex G, torch-applied.

#8 All other direct-deck, adhered underlayment systems beneath tile roof systems carry a Maximum Design Pressure of -45 psf.

5.8.3.2 Mechanically-Attached Base Sheet:

The maximum design pressure for the selected assembly shall meet or exceed that required under **FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual**, Sixth Edition, Appendix A, Table 1A or the critical (highest) design pressure determined in accordance with **FBC 1609** or **FBC Residential Chapter 3**.

Alternatively, the maximum design pressure for the selected assembly shall meet or exceed at least the Zone 1 design pressure determined in accordance with **FBC 1609** or **FBC Residential Chapter 3**. Elevated pressure zones shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are ANSI/SPRI WD1, FM Loss Prevention Data Sheet 1-29, Roofing Application Standard RAS 117 and Roofing Application Standard RAS 137. Assemblies marked with an asterisk* carry the limitations set forth in Section 2.2.10.1 of FM Loss Prevention Data Sheet 1-29 (February 2020) for enhancements.

#9 Maximum Design Pressure = -30.0 psf*:

Deck: Min. 15/32-inch OSB to meet project requirements to satisfaction of Authority Having Jurisdiction.
 Base Sheet: Elastobase or Mule-Hide Nail Base (poly-film top surface)
 Fasteners: 11 ga. x 1.25-inch long x 1-inch head diameter round metal cap nails
 Spacing: 6-inch o.c. at the 3-inch wide side laps and 6-inch o.c. at two (2) equally spaced staggered center rows.
 Base Ply: (Optional) Polystick MTS Plus, self-adhered.
 Underlayment: Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus, self-adhered.

#10 Maximum Design Pressure = -37.5 psf*:

Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
 Base Sheet: Elastobase or Mule-Hide Nail Base (poly-film top surface)
 Fasteners: 11 ga. x 1.25-inch long x 1-inch head diameter round metal cap nails
 Spacing: 6-inch o.c. at the 3-inch wide side laps and 6-inch o.c. at two (2) equally spaced staggered center rows.
 Base Ply: (Optional) Polystick MTS Plus, self-adhered.
 Underlayment: Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus, self-adhered.

#11 Maximum Design Pressure = -37.5 psf*:

Deck: Min. 19/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
 Base Sheet: One (1) or two (2) layers ASTM D226, Type II felt
 Fasteners: 11 ga. x 1.25-inch long x 1-inch head diameter round metal cap nails
 Spacing: 6-inch o.c. at the 3-inch wide side laps and 12-inch o.c. at two (2) equally spaced staggered center rows.
 Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt.



- #12 **Maximum Design Pressure = -45 psf*:**
Deck: Min. 19/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: One (1) layer ASTM D226, Type II felt
Fasteners: 11 ga. x 1.25-inch x 3/8-inch head diameter annular ring shank roofing nails at 1-5/8-inch diameter tin caps
Spacing: 4-inch o.c. at the 2-inch wide side laps and 4-inch o.c. at two (2) equally spaced staggered center rows.
Base Ply: (Optional; for use with self-adhering underlayment only) Polystick MTS Plus, self-adhered.
Underlayment: Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus, self-adhered.
- #13 **Maximum Design Pressure = -45 psf*:**
Deck: Min. 19/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Two (2) layers ASTM D226, Type II felt
Fasteners: 11 ga. x 1.25-inch long x 3/8-inch head diameter annular ring shank roofing nails at 1-5/8-inch diameter tin caps
Spacing: 9-inch o.c. at the 2-inch wide side laps and 9-inch o.c. at two (2) equally spaced staggered center rows.
Base Ply: (Optional; for use with self-adhering underlayment only) Polystick MTS Plus, self-adhered.
Underlayment: Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus, self-adhered or Elastoflex S6 G, applied in full mopping of hot asphalt.
- #14 **Maximum Design Pressure = -45 psf:**
Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase (sanded top surface for hot-asphalt or torch-applied cap or poly-film surface for torch-applied cap)
Fasteners: Simplex MAXX Cap Fasteners
Spacing: 9-inch o.c. at the 2-inch wide side laps and 18-inch o.c. at two (2) equally spaced staggered center rows.
Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt or Polyflex G, torch-applied.
- #15 **Maximum Design Pressure = -45.0 psf:**
Deck: APA rated, 7/16 CAT, 0.418 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase or Mule-Hide Nail Base (poly-film top surface)
Fasteners: 12 ga. annular ring shank nails with 1-5/8" diameter tin caps
Spacing: 6-inch o.c. at the 3-inch wide side laps and 6-inch o.c. at four (4) equally spaced staggered center rows.
Base Ply: (Optional) Polystick MTS Plus, self-adhered.
Underlayment: Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus, self-adhered.
- #16 **Maximum Design Pressure = -45.0 psf:**
Deck: APA rated, 7/16 CAT, 0.418 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase (sand top surface)
Fasteners: 12 ga. annular ring shank nails with 1-5/8" diameter tin caps
Spacing: 6-inch o.c. at the 3-inch wide side laps and 6-inch o.c. at four (4) equally spaced staggered center rows.
Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt.
- #17 **Maximum Design Pressure = -45.0 psf:**
Deck: APA rated, 7/16 CAT, 0.418 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase or Polyglass Base
Fasteners: 12 ga. annular ring shank nails with 1-5/8" diameter tin caps
Spacing: 6-inch o.c. at the 3-inch wide side laps and 6-inch o.c. at four (4) equally spaced staggered center rows.
Underlayment: Polyflex G, torch-applied.
- #18 **Maximum Design Pressure = -52.5 psf:**
Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase (sanded top surface for hot-asphalt or torch-applied cap or poly-film surface for torch-applied cap)
Fasteners: Simplex MAXX Cap Fasteners
Spacing: 9-inch o.c. at the 2-inch wide side laps and 12-inch o.c. at two (2) equally spaced staggered center rows.
Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt or Polyflex G, torch-applied.



- #19 **Maximum Design Pressure = -52.5 psf:**
Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase or Mule-Hide Nail Base (poly-film top surface)
Fasteners: Simplex Original Cap Nails
Spacing: 6-inch o.c. at the 3-inch wide side laps and 6-inch o.c. at four (4) equally spaced staggered center rows.
Base Ply: (Optional) Polystick MTS Plus, self-adhered.
Underlayment: Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus, self-adhered.
- #20 **Maximum Design Pressure = -52.5 psf:**
Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase (sanded top surface for hot-asphalt or torch-applied cap or poly-film surface for torch-applied cap)
Fasteners: Simplex Original Cap Nails
Spacing: 6-inch o.c. at the 3-inch wide side laps and 6-inch o.c. at four (4) equally spaced staggered center rows.
Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt or Polyflex G, torch-applied.
- #21 **Maximum Design Pressure = -60 psf:**
Deck: Min. 19/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase (sanded top surface for hot-asphalt or torch-applied cap or poly-film surface for torch-applied cap)
Fasteners: 11 ga. x 1.25-inch long x 3/8-inch head diameter annular ring shank roofing nails at 1-5/8-inch diameter tin caps
Spacing: 8-inch o.c. at the 4-inch wide side laps and 8-inch o.c. at three (3) equally spaced staggered center rows.
Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt or Polyflex G, torch-applied.
- #22 **Maximum Design Pressure = -60 psf:**
Deck: Min. 19/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase (sanded top surface for hot-asphalt or torch-applied cap or poly-film surface for torch-applied cap)
Fasteners: OMG #12 Standard Roofgrip with OMG Flat Bottom Metal Plates
Spacing: 12-inch o.c. at the 4-inch wide side laps and 12-inch o.c. at two (2) equally spaced staggered center rows.
Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt or Polyflex G, torch-applied.
- #23 **Maximum Design Pressure = -60.0 psf:**
Deck: APA rated, 7/16 CAT, 0.418 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase or Mule-Hide Nail Base (poly-film top surface)
Fasteners: Simplex MAXX Cap Fasteners
Spacing: 8-inch o.c. at the 3-inch wide side laps and 8-inch o.c. at three (3) equally spaced staggered center rows.
Primer: PG100 or ASTM D41 primer applied to stress plates.
Base Ply: (Optional) Polystick MTS Plus, self-adhered.
Underlayment: Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus, self-adhered.
- #24 **Maximum Design Pressure = -60.0 psf:**
Deck: APA rated, 7/16 CAT, 0.418 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase (sand top surface)
Fasteners: Simplex MAXX Cap Fasteners
Spacing: 8-inch o.c. at the 3-inch wide side laps and 8-inch o.c. at three (3) equally spaced staggered center rows.
Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt.
- #25 **Maximum Design Pressure = -60.0 psf:**
Deck: APA rated, 7/16 CAT, 0.418 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase or Polyglass Base
Fasteners: Simplex MAXX Cap Fasteners
Spacing: 8-inch o.c. at the 3-inch wide side laps and 8-inch o.c. at three (3) equally spaced staggered center rows.
Underlayment: Polyflex G, torch-applied.



- #26 **Maximum Design Pressure = -67.5 psf:**
Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Polyglass G2 Base or Polyglass Base (*requires use of torch-applied underlayment*)
Fasteners: 12 ga. x 1.25-inch long x 3/8-inch head diameter annular ring shank roofing nails at 1-5/8-inch diameter tin caps
Spacing: 8-inch o.c. at the 4-inch wide side laps and 8-inch o.c. at four (4) equally spaced staggered center rows.
Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt or torch-applied or Polyflex G, torch-applied.
- #27 **Maximum Design Pressure = -67.5 psf:**
Deck: APA rated, 19/32 CAT, 0.578 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase or Mule-Hide Nail Base (poly-film top surface)
Fasteners: TRUFast Versa-Fast Fasteners & Plates with two (2) screws per plate installed 180° into the holes of the plate, parallel to the width direction of the sheet.
Spacing: 12-inch o.c. at the 4-inch wide side laps and 12-inch o.c. at two (2) equally spaced staggered center rows.
Primer: (Optional) PG100 or ASTM D41 primer applied to stress plates.
Base Ply: (Optional) Polystick MTS Plus, self-adhered.
Underlayment: Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus, self-adhered.
- #28 **Maximum Design Pressure = -67.5 psf:**
Deck: APA rated, 19/32 CAT, 0.578 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase (sand top surface)
Fasteners: TRUFast Versa-Fast Fasteners & Plates with two (2) screws per plate installed 180° into the holes of the plate, parallel to the width direction of the sheet.
Spacing: 12-inch o.c. at the 4-inch wide side laps and 12-inch o.c. at two (2) equally spaced staggered center rows.
Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt.
- #29 **Maximum Design Pressure = -67.5 psf:**
Deck: APA rated, 19/32 CAT, 0.578 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase or Polyglass Base
Fasteners: TRUFast Versa-Fast Fasteners & Plates with two (2) screws per plate installed 180° into the holes of the plate, parallel to the width direction of the sheet.
Spacing: 12-inch o.c. at the 4-inch wide side laps and 12-inch o.c. at two (2) equally spaced staggered center rows.
Underlayment: Polyflex G, torch-applied.
- #30 **Maximum Design Pressure = -75 psf:**
Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Polyglass G2 Base or Polyglass Base (*requires use of torch-applied underlayment*)
Fasteners: Dekfast #14 with Dekfast Hex plates, OMG #14 HD with OMG 3" Galvalume Steel Plates, OMG Roofgrip #14 with OMG Flat Bottom Plates (AccuTrac), Trufast HD with Trufast 3-inch Insulation Plates or Simplex MAXX Cap Fasteners
Spacing: 10-inch o.c. at the 4-inch wide side laps and 10-inch o.c. at three (3) equally spaced staggered center rows.
Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt or torch-applied or Polyflex G, torch-applied.
- #31 **Maximum Design Pressure = -90 psf:**
Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase (sanded top surface for hot-asphalt or torch-applied cap or poly-film surface for torch-applied cap)
Fasteners: Simplex MAXX Cap Fasteners
Spacing: 6-inch o.c. at the 2-inch wide side laps and 6-inch o.c. at two (2) equally spaced staggered center rows.
Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt or Polyflex G, torch-applied.
- #32 **Maximum Design Pressure = -90 psf:**
Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase (sanded top surface for hot-asphalt or torch-applied cap or poly-film surface for torch-applied cap)
Fasteners: OMG #12 Standard Roofgrip or OMG #14 Heavy Duty with OMG 3" Round Metal Plates or OMG Flat Bottom Metal Plates
Spacing: 6-inch o.c. at the 4-inch wide side laps and 6-inch o.c. at three (3) equally spaced staggered center rows.
Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt or Polyflex G, torch-applied.



- #33 **Maximum Design Pressure = -90 psf:**
Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase (sanded top surface)
Fasteners: Trufast #12 DP or Trufast #14 HD with Trufast 3" Metal Insulation Plates
Spacing: 6-inch o.c. at the 4-inch wide side laps and 6-inch o.c. at three (3) equally spaced staggered center rows.
Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt.
- #34 **Maximum Design Pressure = -90 psf:**
Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Polyglass G2 Base or Polyglass Base (requires use of torch-applied underlayment)
Fasteners: Dekfast #14 with Dekfast Hex plates, OMG #14 HD with OMG 3" Galvalume Steel Plates, OMG Roofgrip #14 with OMG Flat Bottom Plates (AccuTrac), Trufast HD with Trufast 3-inch Insulation Plates or Simplex MAXX Cap Fasteners
Spacing: 9-inch o.c. at the 4-inch wide side laps and 9-inch o.c. at four (4) equally spaced staggered center rows.
Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt or torch-applied or Polyflex G, torch-applied.
- #35 **Maximum Design Pressure = -90.0 psf:**
Deck: APA rated, 7/16 CAT, 0.418 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase or Mule-Hide Nail Base (poly-film top surface)
Fasteners: TRUFAST Versa-Fast Fasteners & Plates with two (2) screws per plate installed 180° into the holes of the plate, parallel to the width-direction of the sheet
Spacing: 9-inch o.c. at the 2-inch wide side laps and 12-inch o.c. at two (2) equally spaced staggered center rows.
Primer: PG100 or ASTM D41 primer applied to stress plates.
Base Ply: (Optional) Polystick MTS Plus, self-adhered.
Underlayment: Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus, self-adhered.
- #36 **Maximum Design Pressure = -90.0 psf:**
Deck: APA rated, 7/16 CAT, 0.418 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase (sand top surface)
Fasteners: TRUFAST Versa-Fast Fasteners & Plates with two (2) screws per plate installed 180° into the holes of the plate, parallel to the width-direction of the sheet
Spacing: 9-inch o.c. at the 2-inch wide side laps and 12-inch o.c. at two (2) equally spaced staggered center rows.
Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt.
- #37 **Maximum Design Pressure = -90.0 psf:**
Deck: APA rated, 7/16 CAT, 0.418 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase or Polyglass Base
Fasteners: TRUFAST Versa-Fast Fasteners & Plates with two (2) screws per plate installed 180° into the holes of the plate, parallel to the width-direction of the sheet
Spacing: 9-inch o.c. at the 2-inch wide side laps and 12-inch o.c. at two (2) equally spaced staggered center rows.
Underlayment: Polyflex G, torch-applied.
- #38 **Maximum Design Pressure = -97.5 psf:**
Deck: Min. 19/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase or Mule-Hide Nail Base (poly-film top surface)
Fasteners: 11 ga. x 1.25-inch x 3/8-inch head diameter annular ring shank roofing nails at 1-5/8-inch diameter tin caps
Spacing: 4-inch o.c. at the 4-inch wide side laps and 4-inch o.c. at four (4) equally spaced staggered center rows.
Base Ply: (Optional) Polystick MTS Plus, self-adhered.
Underlayment: Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus, self-adhered.



- #39 **Maximum Design Pressure = -97.5 psf:**
Deck: APA rated, 19/32 CAT, 0.578 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase or Mule-Hide Nail Base (poly-film top surface)
Fasteners: Simplex MAXX Cap Fasteners
Spacing: 6-inch o.c. at the 4-inch wide side laps and 6-inch o.c. at four (4) equally spaced staggered center rows.
Primer: PG100 or ASTM D41 primer applied to stress plates.
Base Ply: (Optional) Polystick MTS Plus, self-adhered.
Underlayment: Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus, self-adhered.
- #40 **Maximum Design Pressure = -97.5 psf:**
Deck: APA rated, 19/32 CAT, 0.578 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase (sand top surface)
Fasteners: Simplex MAXX Cap Fasteners
Spacing: 6-inch o.c. at the 4-inch wide side laps and 6-inch o.c. at four (4) equally spaced staggered center rows.
Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt.
- #41 **Maximum Design Pressure = -97.5 psf:**
Deck: APA rated, 19/32 CAT, 0.578 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase or Polyglass Base
Fasteners: Simplex MAXX Cap Fasteners
Spacing: 6-inch o.c. at the 4-inch wide side laps and 6-inch o.c. at four (4) equally spaced staggered center rows.
Underlayment: Polyflex G, torch-applied.
- #42 **Maximum Design Pressure = -105 psf:**
Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase (sanded top surface for hot-asphalt or torch-applied cap or poly-film surface for torch-applied cap)
Fasteners: Simplex MAXX Cap Fasteners
Spacing: 6-inch o.c. at the 2-inch wide side laps and 6-inch o.c. at three (3) equally spaced staggered center rows.
Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt or Polyflex G, torch-applied.
- #43 **Maximum Design Pressure = -105.0 psf:**
Deck: APA rated, 7/16 CAT, 0.418 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase or Mule-Hide Nail Base (poly-film top surface)
Fasteners: TRUFast Versa-Fast Fasteners & Plates with two (2) screws per plate installed 180° into the holes of the plate, parallel to the width-direction of the sheet
Spacing: 6-inch o.c. at the 4-inch wide side laps and 6-inch o.c. at three (3) equally spaced staggered center rows.
Primer: PG100 or ASTM D41 primer applied to stress plates.
Base Ply: (Optional) Polystick MTS Plus, self-adhered.
Underlayment: Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus, self-adhered.
- #44 **Maximum Design Pressure = -105.0 psf:**
Deck: APA rated, 7/16 CAT, 0.418 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet: Elastobase (sand top surface)
Fasteners: TRUFast Versa-Fast Fasteners & Plates with two (2) screws per plate installed 180° into the holes of the plate, parallel to the width-direction of the sheet
Spacing: 6-inch o.c. at the 4-inch wide side laps and 6-inch o.c. at three (3) equally spaced staggered center rows.
Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt.



- #45 **Maximum Design Pressure = -105.0 psf:**
 - Deck: APA rated, 7/16 CAT, 0.418 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
 - Base Sheet: Elastobase or Polyglass Base
 - Fasteners: TRUFAST Versa-Fast Fasteners & Plates with two (2) screws per plate installed 180° into the holes of the plate, parallel to the width-direction of the sheet
 - Spacing: 6-inch o.c. at the 4-inch wide side laps and 6-inch o.c. at three (3) equally spaced staggered center rows.
 - Underlayment: Polyflex G, torch-applied.
- #46 **Maximum Design Pressure = -112.5 psf:**
 - Deck: Min. 19/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
 - Base Sheet: Elastobase or Mule-Hide Nail Base (poly-film top surface)
 - Fasteners: 11 ga. x 1.25-inch x 3/8-inch head diameter annular ring shank roofing nails at 1-5/8-inch diameter tin caps
 - Spacing: 6-inch o.c. at the 4-inch wide side laps and 6-inch o.c. at four (4) equally spaced staggered center rows.
 - Primer: PG100 or ASTM D41 primer at all tin-caps
 - Base Ply: Polystick MTS Plus, self-adhered
 - Underlayment: Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus, self-adhered.
- #47 **Maximum Design Pressure = -120 psf:**
 - Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
 - Base Sheet: Elastobase (sanded top surface for hot-asphalt or torch-applied cap or poly-film surface for torch-applied cap)
 - Fasteners: OMG #12 Standard Roofgrip or OMG #14 Heavy Duty with OMG 3" Round Metal Plates or OMG Flat Bottom Metal Plates
 - Spacing: 6-inch o.c. at the 4-inch wide side laps and 6-inch o.c. at five (5) equally spaced staggered center rows.
 - Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt or Polyflex G, torch-applied.
- #48 **Maximum Design Pressure = -120 psf:**
 - Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
 - Base Sheet: Elastobase (sanded top surface)
 - Fasteners: Trufast #12 DP or Trufast #14 HD with Trufast 3" Metal Insulation Plates
 - Spacing: 6-inch o.c. at the 4-inch wide side laps and 6-inch o.c. at five (5) equally spaced staggered center rows.
 - Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt.
- #49 **Maximum Design Pressure = -127.5 psf:**
 - Deck: APA rated, 19/32 CAT, 0.578 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
 - Base Sheet: Elastobase or Mule-Hide Nail Base (poly-film top surface)
 - Fasteners: TRUFAST Versa-Fast Fasteners & Plates with one (1) screw per plate, in the center hole.
 - Spacing: 9-inch o.c. at the 4-inch wide side laps and 9-inch o.c. at four (4) equally spaced staggered center rows.
 - Primer: PG100 or ASTM D41 primer applied to stress plates.
 - Base Ply: (Optional) Polystick MTS Plus, self-adhered.
 - Underlayment: Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P or Polystick TU Plus, self-adhered.
- #50 **Maximum Design Pressure = -127.5 psf:**
 - Deck: APA rated, 19/32 CAT, 0.578 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
 - Base Sheet: Elastobase (sand top surface)
 - Fasteners: TRUFAST Versa-Fast Fasteners & Plates with one (1) screw per plate, in the center hole.
 - Spacing: 9-inch o.c. at the 4-inch wide side laps and 9-inch o.c. at four (4) equally spaced staggered center rows.
 - Underlayment: Elastoflex S6 G, applied in full mopping of hot asphalt.
- #51 **Maximum Design Pressure = -127.5 psf:**
 - Deck: APA rated, 19/32 CAT, 0.578 in., Exposure 1, OSB sheathing to meet project requirements to satisfaction of Authority Having Jurisdiction.
 - Base Sheet: Elastobase or Polyglass Base
 - Fasteners: TRUFAST Versa-Fast Fasteners & Plates with one (1) screw per plate, in the center hole.
 - Spacing: 9-inch o.c. at the 4-inch wide side laps and 9-inch o.c. at four (4) equally spaced staggered center rows.
 - Underlayment: Polyflex G, torch-applied.

5.9 Exposure Limitations:

| TABLE 3: EXPOSURE LIMITATIONS | | |
|--|--|--------------------------------|
| Underlayment | Prepared Roof Cover Installation Type | Maximum Exposure (days) |
| Elastobase, Elastobase P, Polyglass G2 Base or Polyglass Base | Mechanically attached | 30 |
| Polystick IR-Xe or Polystick MU-X | Mechanically attached | 90 |
| HydraGuard Dual Pro, HydraGuard Tile Pro, Polystick MTS Plus, Polystick TU Max, Polystick TU P, Polystick TU Plus or Polystick XFR | Any type (per Table 1) | 180 |
| Elastoflex S6 G, Elastoflex S6 G FR, Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex G, Polyflex G FR, Polyflex SA P or Polyflex SA P FR | Adhesive-set tile roof system | 180 |
| | Mechanically attached | UNLIMITED |

5.10 Tile Slippage Limitations: When loading roof tiles on the underlayment in direct-deck tile roof assemblies, the maximum roof slope shall be as follows. These slope limitations can only be exceeded by using battens during loading of the roof tiles.

| TABLE 4: TILE SLIPPAGE LIMITATIONS FOR DIRECT-DECK TILE INSTALLATIONS | | | |
|--|---------------------|--|------------------------------|
| Underlayment | Tile Profile | Staging Method | Maximum Staging Slope |
| Elastoflex S6 G or S6 G FR | Flat or Lugged | 6-tile stack (4 over 2) | Prohibited without battens |
| HydraGuard Tile Pro | Flat or Lugged | 6-tile stack (4 over 2) | 7:12 |
| Polyflex G or G FR | Flat or Lugged | 6-tile stack (4 over 2) | 4:12 |
| Polyflex SA P or SA P FR | Flat or Lugged | 6-tile stack (4 over 2) | 4:12 |
| Polystick MTS Plus | Flat | 6-tile stack (4 over 2) | 5:12 |
| | Lugged | 6-tile stack (4 over 2) | 4:12 |
| Polystick TU Max | Flat | 6-tile stack (4 over 2) or 10-tile stack | 7:12 |
| | Lugged | 6-tile stack (4 over 2) | 7:12 |
| | Lugged | 10-tile stack | 6:12 |
| Polystick TU P | Flat or Lugged | 6-tile stack (4 over 2) | 7:12 |
| Polystick TU Plus | Flat or Lugged | 6-tile stack (4 over 2) | 7:12 |
| | Flat or Lugged | 10-tile stack | 6:12 |
| Polystick XFR | Flat or Lugged | Prohibited without battens | Prohibited without battens |



6. INSTALLATION:

- 6.1 Polyglass Roof Underlayments shall be installed in accordance with Polyglass 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).

Elastobase, Elastobase P or Mule-Hide Nail Base:

6.3.1 **Non-Tile Applications:**
 Shall be installed in compliance with requirements for an approved mechanically attached underlayment (ASTM D226, Type II) in **FBC Table 1507.1.1.1** or **FBC Residential Table R905.1.1.1** for the type of prepared roof covering to be installed, and the manufacturer’s installation instructions. FBC requirements take precedence over the manufacturer’s installation instructions. Elastobase, Elastobase P or Mule-Hide Nail Base may be covered with a layer of Polystick IR-Xe, Polystick MTS Plus, Polystick MU-X, Polystick TU Max, Polystick TU P, Polystick TU Plus, Polystick XFR, Polyflex SAP, Polyflex SA P FR, Mule-Hide SA-APP Cap Sheet or SA-APP Cap Sheet (FR), self-adhered, Elastoflex S6 G or Elastoflex S6 G FR in hot asphalt or Polyflex G or Polyflex G FR, torch applied. Roof cover limitations are those are those associated with the top-layer underlayment, as set forth in Table 1.

6.3.2 **Tile Applications:**
 6.3.2.1 Elastobase (poly-film top), Elastobase P (poly-film top) and Mule-Hide Nail Base are limited to use as a mechanically attached base sheet in the “TWO-PLY SYSTEM” from **FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual**, Sixth Edition, followed by Polystick MTS Plus, Polystick TU Max, Polystick TU P, Polystick TU Plus, Polystick XFR, Polyflex SAP, Polyflex SA P FR, Mule-Hide SA-APP Cap Sheet or SA-APP Cap Sheet (FR), self-adhered or Polyflex G or Polyflex G FR, torch-applied. Tile roof installation method is limited by the selected Cap Sheet, as set forth in Table 1. Refer to Section 5.8.3.2 herein for attachment requirements.

6.3.2.2 Elastobase (sanded-top) and Elastobase P (sanded-top)e are limited to use as a mechanically attached base sheet in the “TWO-PLY SYSTEM” from **FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual**, Sixth Edition, followed by Elastoflex S6 G, Elastoflex S6 G FR or an FBC Approved Mineral Surfaced Cap Sheet (ASTM D6380), asphalt-applied or Polyflex G or Polyflex G FR, torch-applied. Tile roof installation method is limited by the selected Cap Sheet, as set forth in Table 1.

- When Elastobase (sanded-top) or Elastobase P (sanded-top) is followed by asphalt-applied Elastoflex S6 G, Elastoflex S6 G FR or FBC Approved Mineral Surfaced Cap Sheet (ASTM D6380), refer to **FRSA/TRI**, Sixth Edition, Appendix A, Table 1 or Section 5.8.3.2 herein for attachment requirements.
- When Elastobase (sanded-top) or Elastobase P (sanded-top) is followed by torch-applied Polyflex G or Polyflex G FR, refer to Section 5.8.3.2 herein for attachment requirements.

HydraGuard Dual Pro, HydraGuard Tile Pro, Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Polyflex SA P, Polyflex SA P FR, Polystick IR-Xe, Polystick MTS Plus, Polystick MU-X, Polystick TU Max, Polystick TU P, Polystick TU Plus or Polystick XFR:

6.4.1 **General:**
 All seal-lap seams (selvage laps) must be firmly rolled with a in accordance with Polyglass requirements to ensure full contact and adhesion. For HydraGuard Dual Pro and HydraGuard Tile Pro, align the edge of the top sheet to the end of the glue pattern (the sheet will overlap the fabric).



View of Overlap Seam of HydraGuard Dual Pro and HydraGuard Tile Pro



6.4.2 Non-Tile Applications:

Shall be installed in compliance with requirements for an approved self-adhering underlayment (ASTM D1970) in FBC 1507.1.1.1 or 1507.1.1.3 or FBC Residential R905.1.1.1 or R905.1.1.3 for the type of prepared roof covering to be installed, and the manufacturer’s installation instructions.

When installed over a mechanically attached base sheet of FBC Approved ASTM D226, Type II felt, Elastobase, Elastobase P or Mule-Hide Nail Base, the base sheet shall be fastened in accordance with FBC 1507.1.1 or R905.1.1.

6.4.3 Tile Applications (excludes HydraGuard Dual Pro, Polystick IR-Xe and Polystick MU-X):

Shall be installed in compliance with the requirements for Self-Adhered Membrane set forth in FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual, Sixth Edition and the manufacturer’s installation instructions.

Refer to Section 5.8.3 herein for attachment limitations.

Refer to Table 4 herein for tile staging limitations.

6.4.4 Multi-Ply Underlayment Systems:

Polystick MTS Plus or Polystick XFR followed by HydraGuard Tile Pro, Polyflex SA P, Polystick MTS Plus, Polystick MU-X, Polystick TU Max, Polystick TU P, Polystick TU Plus or Polystick XFR is allowable for use under mechanically attached prepared roof systems. Limits of use are those associated with the top-layer material. This is not a requirement, but is allowable if a 2-ply underlayment system is desired.

Polystick MTS Plus followed by HydraGuard Tile Pro, Polyflex SA P, Polystick TU Max, Polystick TU P or Polystick TU Plus is allowable for use under adhesive-set tile systems. Limits of use are those associated with the top-layer material. This is not a requirement, but is allowable if a 2-ply underlayment system is desired.

6.5 **Elastoflex S6 G or Elastoflex S6 G FR:**

6.5.1 Shall be installed in compliance with requirements as an alternate to the “Hot Asphalt Applied Cap Sheet” in the “Two Ply System” in the FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual, Sixth Edition, and the manufacturer’s installation instructions.

Refer to Section 5.8.2 and 5.8.3 herein for attachment limitations.

Refer to Table 4 herein for tile staging limitations.

6.6 **Polyflex G or Polyflex G FR:**

6.6.1 Shall be installed in compliance with requirements as an alternate to the “Heat Applied Cap Sheet” in the “Two Ply System” in the FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual, Sixth Edition, and the manufacturer’s installation instructions.

Refer to Section 5.8.3 herein for attachment limitations.

Refer to Table 4 herein for tile staging limitations.

7. BUILDING PERMIT REQUIREMENTS:

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

8. MANUFACTURING PLANTS:

Contact the named QA entity for manufacturing facilities covered by F.A.C. Rule 61G20-3 QA requirements. Refer to Section 4 herein for products and production locations having met codified material standards.

9. QUALITY ASSURANCE ENTITY:

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

- END OF EVALUATION REPORT -



Ron DeSantis, Governor

Halsey Beshnars, Secretary



**STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD**

THE ROOFING CONTRACTOR HEREIN IS CERTIFIED UNDER THE
PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

JANNEY, JOHN CARLTON

JANNEY CONSTRUCTION SERVICES, LLC
563 JADEWOOD AVE
ORLANDO FL 32825

LICENSE NUMBER: CCC1329428

EXPIRATION DATE: AUGUST 31, 2022

Always verify licenses online at MyFloridaLicense.com

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Ron DeSantis, Governor

Halsey Beshhears, Secretary



STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

THE GENERAL CONTRACTOR HEREIN IS CERTIFIED UNDER THE
PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

JANNEY, JOHN CARLTON

JANNEY CONSTRUCTION SERVICES LLC
563 JADEWOOD AVE
ORLANDO FL 32825

LICENSE NUMBER: CGC1511396

EXPIRATION DATE: AUGUST 31, 2022

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Policy Number:

Date Entered:

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

1/21/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

| | | |
|--|--|--------------------------------------|
| PRODUCER Insurance Land P.O. Box 2787 2401 FRENCH AVE. Sanford, FL 32772 | CONTACT NAME: Tonya Elliott PHONE (A/C, No, Ext): (407) 330-3111 E-MAIL ADDRESS: info@insuranceland.org | FAX (A/C, No): (407) 330-3105 |
| | INSURER(S) AFFORDING COVERAGE | |
| INSURED Janney Construction Services LLC 640 North Semoran Blvd Orlando, FL 32807 | INSURER A: Clear Blue Specialty Insurance Company | NAIC # 37745 |
| | INSURER B: United Specialty Insurance Company | |
| | INSURER C: | |
| | INSURER D: | |
| | INSURER E: | |
| | INSURER F: | |

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE | ADDL INSD | SUBR WVD | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS |
|----------|---|-----------|----------|------------------|-------------------------|-------------------------|--|
| A | <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC <input type="checkbox"/> OTHER | | | AR01RS2000065-02 | 2/17/2021 | 2/17/2022 | EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COM/POP AGG \$ 2,000,000 \$ |
| | AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS ONLY | | | | | | COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$ |
| B | <input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$ | | | BTN2016261 | 03/18/2020 | 03/18/2021 | EACH OCCURRENCE \$ 3,000,000 AGGREGATE \$ 3,000,000 \$ |
| | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y/N If yes, describe under DESCRIPTION OF OPERATIONS below | | N/A | | | | PER STATUTE OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$ |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Roofing
John Carlton Janney is qualifier: CCC1329428

CERTIFICATE HOLDER

City of Belle Isle
1600 Nela Avenue
Belle Isle, FL 32809

Email: cobipermits@universalengineering.com

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

PAID: \$60.00 0098-00932094 7/2/2020

Tax Collector Scott Randolph

Local Business Tax Receipt

Orange County, Florida

This local Business Tax Receipt is in addition to and not in lieu of any other tax required by law or municipal ordinance. Businesses are subject to regulation of zoning, health and other lawful authorities. This receipt is valid from October 1 through September 30 of receipt year. Delinquent penalty is added October 1.

| | | | | | |
|-----------------------------|----------------|-------------------|----------------------------------|----------------|---------------------|
| | 2020 | EXPIRES | 9/30/2021 | | 5000-1192812 |
| 5000 BUSINESS OFFICE | \$30.00 | 1 EMPLOYEE | 1808 CERTIFIED ROOFING CO | \$30.00 | 1 EMPLOYEE |

| | |
|-----------------|---------|
| TOTAL TAX | \$60.00 |
| PREVIOUSLY PAID | \$60.00 |
| TOTAL DUE | \$0.00 |

640 N SEMORAN BLVD
U - ORLANDO, 32807

PAID: \$60.00 0098-00932094 7/2/2020



JANNEY JOHN CARLTON

JANNEY CONSTRUCTION SERVICES LLC
JANNEY JOHN CARLTON
640 N SEMORAN BLVD
ORLANDO FL 32807

This receipt is official when validated by the Tax Collector.

Orange County Code requires this local Business Tax Receipt to be displayed conspicuously at the place of business in public view. It is subject to inspection by all duly authorized officers of the County.