FL #	FL7473-R8
Application Type	Revision
Code Version	2017
Application Status	Approved
Comments	
Archived	
Product Manufacturer	EAGLE ROOFING PRODUCTS FLORIDA LLC
Address/Phone/Email	1575 East CR 470 Sumterville, FL 33858 (800) 400-3245 annettes@eagleroofing.com
Authorized Signature	Annette Sindar annettes@eagleroofing.com
Technical Representative Address/Phone/Email	Tyler Allwood 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 Florida Professional Engineer 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	12/31/2020
Validated By	John W. Knezevich, PE ✓ Validation Checklist - Hardcopy Received
Certificate of Independence	FL7473_R8_COI_2017_01_COI_Nieminen.pdf

Referenced Standard and Year (of Standard)

Standard	Year
ASTM C1492	2009
FRSA/TRI April 2012	2012
SSTD 11	1997

Equivalence of Product Standards
Certified By

Sections from the Code

Product Approval Method	Method 1 Option D
Date Submitted	10/16/2017
Date Validated	10/18/2017
Date Pending FBC Approval	10/19/2017
Date Approved	12/12/2017

Summary of Products

FL #	Model, Number or Name	Description
7473.1	Eagle Roof Tiles	Low (flat), medium and high profile concrete roof tiles

Limits of Use
Approved for use in HVHZ: No
Approved for use outside HVHZ: Yes
Impact Resistant: N/A
Design Pressure: N/A
Other: See Section 5 of Evaluation Report for Limits of Use. Tile roofs are analyzed for wind resistance through overturning moment. Refer to FRSA/TRI 07320 for overturning moment limitations of mechanically attached tile systems and the tile adhesive manufacturers' Product Approvals for adhesive set tile systems.

Installation Instructions
FL7473_R8_II_2017_10_FINAL_ER_EAGLE_NON-HVHZ_FL7473-R8.pdf
Verified By: Robert J. M. Nieminen PE - 59166
Created by Independent Third Party: Yes

Evaluation Reports
FL7473_R8_AE_2017_10_FINAL_ER_EAGLE_NON-HVHZ_FL7473-R8.pdf
Created by Independent Third Party: Yes

Back Next

TRINITY | ERD

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

EVALUATION REPORT

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

Evaluation Report E1322.09.06-R5
FL7473-R8
Date of Issuance: 02/24/2009
Revision 5: 10/16/2017

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

DESCRIPTION: Eagle Roof Tiles

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

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

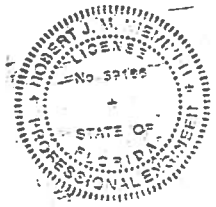
ADVERTISEMENT: The Evaluation Report number preceded by the words "Evaluated by Robert Nieminen, P.E." may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

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 10/16/2017. This does not serve as an electronically signed document. Signed, sealed hardcopies have been transmitted to the Product Approval Administrator and to the named client

CERTIFICATION OF INDEPENDENCE:

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

ROOFING SYSTEM EVALUATION:

1. SCOPE:

Product Category: Roofing
Sub-Category: Roofing Tiles
Compliance Statement: **Eagle Roof Tiles**, as produced by **Eagle Roofing Products Florida LLC**, have demonstrated compliance with the following sections of the **6th Edition (2017) Florida Building Code (NON-HVHZ)** through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

2. STANDARDS:

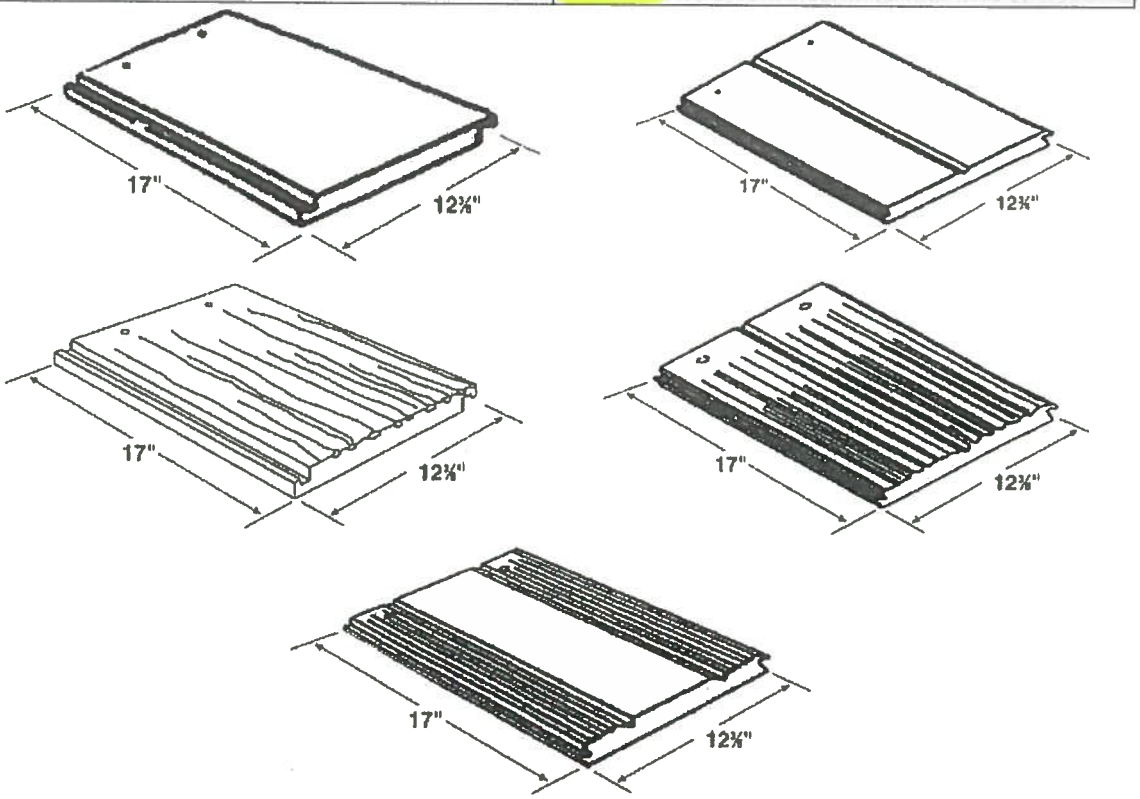
Section	Property	Standard	Year
1507.3.5, R905.3.5	Physical Properties	ASTM C1492	2003(2009)
1507.3.7, R905.3.7	Attachment Requirements	FRSA/TRI April 2012 (04-12)	2012
1504.2.1.1	Overturning Moment	SSTD 11	1997

3. REFERENCES:

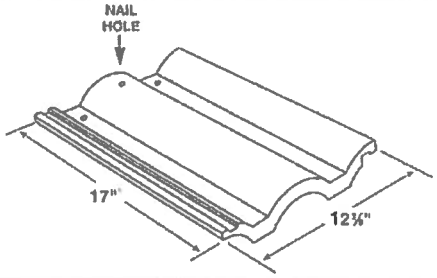
Entity	Examination	Reference	Date
ATL (TST 3782)	ASTM C1492	RT0310.01-17, 02-17, 03-17	03/15/2017
ATL (TST 3782)	ASTM C1492 – Freeze/thaw	RT0706.01-17, 02-17, 03-17	09/25/2017
Tile Roof Institute	SSTD 11	Membership Letter	11/29/2005
ATI (QUA 1844)	Quality Assurance	Inspection Report	06/07/2017

4. PRODUCT DESCRIPTION:

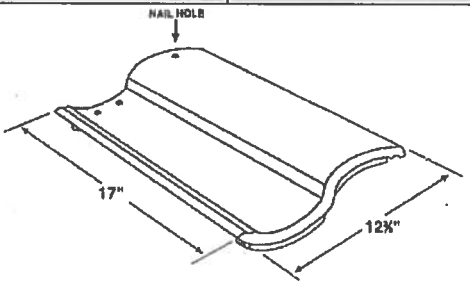
4.1 **ASTM C1492, Type III (Low Profile):** **BEL AIR**



4.2 | ASTM C1492, Type II (Medium Profile): | MALIBU



4.3 | ASTM C1492, Type I (High Profile): | CAPISTRANO



5. LIMITATIONS:

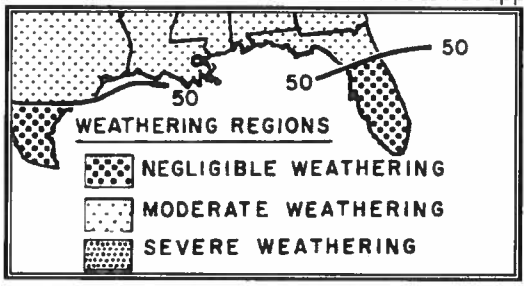
5.1 This is a building code evaluation. Neither Trinity|ERD nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

5.2 This Evaluation Report is not for use in FBC HVHZ jurisdictions.

5.3 Fire classification is not part of this evaluation; refer to **FBC 1505.2, Exception 2** (for non-combustible deck) or listing by an approved testing agency for fire rating of this product.

5.4 Underlayment shall be that which holds Florida Product Approval for use with tile roofing systems. The underlayment Product Approval shall specify allowable method(s) of tile installation (mechanical attachment, mortar-set and/or adhesive-set) for use with the specific underlayment. For mortar-set or adhesive-set tile roofing applications, the underlayment Product Approval shall specify attachment methods for the underlayment system to resist wind uplift design loads in accordance with **Table 1A of FRSA/TRI April 2012 (04-12)**.

5.5 "Color-Bonded" or "Slurry-Coated" files 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)**[i], reproduced below for reference. This limitation does not apply to the "Color-Through" product offering.



5.6 All products in the roof assembly shall have quality assurance audit in accordance with **FAC 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 Tile Installation Manual***.

6.2 Underlayment shall be installed in accordance with **FRSA/TRI April 2012 (04-12)** or the underlayment manufacturer's current Product Approval. For mortar-set or adhesive-set tile roofing applications, the underlayment current Product Approval shall specify attachment methods for the underlayment system to resist wind uplift design loads in accordance with **Table 1A of FRSA/TRI April 2012 (04-12)**.

6.3 Tile Attachment:

6.3.1 Mechanically Attached Tile:
Wind load resistance shall be in accordance with **Table 3 of FRSA/TRI April 2012 (04-12)** to resist the Uplift Moment determined in **Table 2A or 2B of FRSA/TRI April 2012 (04-12)** or **FBC 1609.5.3**.

6.3.2 Mortar-Set Tile:
Wind load resistance shall be in accordance with **Table 2A or 2B of FRSA/TRI April 2012 (04-12)** or **FBC 1609.5.3** in conjunction with the mortar manufacturer's Product Approval.

6.3.3 Adhesive-Set Tile:
Wind load resistance shall be in accordance with **Table 2A or 2B of FRSA/TRI April 2012 (04-12)** or **FBC 1609.5.3** in conjunction with the adhesive manufacturer's current Product Approval. Refer to the current version of the referenced Florida Product Approval for paddy-placement details and performance data.

TILE ADHESIVES FOR ADHESIVE-SET TILE SYSTEMS

Manufacturer	Product(s)	Florida Product Approval
DAP Foam, Inc.	"Touch N' Seal Storm Bond"	FL14506
	"Touch N' Seal Storm Bond 2"	FL21374
Dow Chemical	"TILE BOND™"	FL22525
ICP Adhesives & Sealants, Inc.	"Polyset® AH-160"	FL6332
	"Polyset® RTA-1"	FL6276

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

7. **LABELING:**

7.1 Each unit shall bear the imprint 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.

EAGLE®
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 in order to properly evaluate the installation of this product.

9. **MANUFACTURING PLANTS:**

Sumterville, FL

10. **QUALITY ASSURANCE ENTITY:**

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

- END OF EVALUATION REPORT -

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

ATC Applied Technology Council

WINDSPEED BY LOCATION

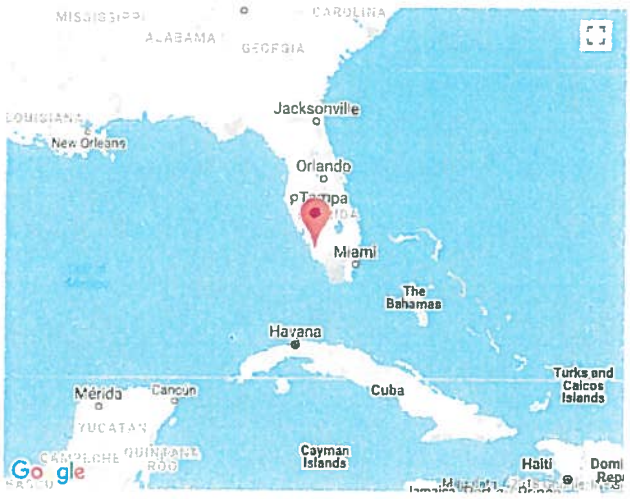
Search Results

Query Date: Thu Mar 01 2018
Latitude: 26.2861
Longitude: -81.6614

ASCE 7-10 Windspeeds
(3-sec peak gust in mph*):

Risk Category I: 146
Risk Category II: 158
Risk Category III-IV: 170
MRI 10-Year:** 85
MRI 25-Year:** 103
MRI 50-Year:** 118
MRI 100-Year:** 129

ASCE 7-05 Windspeed:
127 (3-sec peak gust in mph)
ASCE 7-93 Windspeed:
102 (fastest mile in mph)



*Miles per hour
**Mean Recurrence Interval

Users should consult with local building officials to determine if there are community-specific wind speed requirements that govern

Print your results

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TABLE 2A

Required Aerodynamic Uplift Moment For Field Tile, Ma (ft-lbf)

For Roof Pitches 6:12 and Less

Exposure B	Basic Wind Speed in MPH							
MRH	120	130	140	150	160	170	180	190
0-15	13.3	15.6	18.1	20.8	23.7	26.8	30.0	33.4
20	13.3	15.6	18.1	20.8	23.7	26.8	30.0	33.4
25	13.3	15.6	18.1	20.8	23.7	26.8	30.0	33.4
30	13.3	15.6	18.1	20.8	23.7	26.8	30.0	33.4
35	13.9	16.3	18.9	21.7	24.7	27.9	31.3	34.9
40	14.5	17.0	19.7	22.6	25.7	29.1	32.6	36.3
45	14.9	17.4	20.2	23.2	26.4	29.8	33.4	37.2
50	15.4	18.1	21.0	24.1	27.4	31.0	34.7	38.7
55	15.8	18.6	21.5	24.7	28.1	31.7	35.6	39.6
60	16.2	19.0	22.0	25.3	28.8	32.5	36.4	40.6
Exposure C	**Basic Wind Speed in MPH**							
MRH	120	130	140	150	160	170	180	190
0-15	16.2	19.0	22.0	25.3	28.8	32.5	36.4	40.6
20	17.1	20.1	23.3	26.8	30.5	34.4	38.6	43.0
25	17.9	21.0	24.4	28.0	31.8	35.9	40.3	44.9
30	18.7	21.9	25.4	29.2	33.2	37.5	42.0	46.8
35	19.2	22.6	26.2	30.1	34.2	38.6	43.3	48.2
40	19.8	23.2	27.0	30.9	35.2	39.8	44.6	49.7
45	20.2	23.7	27.5	31.5	35.9	40.5	45.4	50.6
50	20.8	24.4	28.3	32.4	36.9	41.7	46.7	52.0
55	21.1	24.8	28.8	33.0	37.6	42.4	47.6	53.0
60	21.5	25.3	29.3	33.6	38.3	43.2	48.4	54.0
Exposure D	**Basic Wind Speed in MPH**							
MRH	120	130	140	150	160	170	180	190
0-15	19.6	23.0	26.7	30.7	34.9	39.4	44.1	49.2
20	20.6	24.1	28.0	32.1	36.6	41.3	46.2	51.6
25	21.3	25.0	29.0	33.3	37.9	42.8	48.0	53.5
30	22.1	25.9	30.1	34.5	39.3	44.3	49.7	55.4
35	22.7	26.6	30.8	35.4	40.3	45.5	51.0	56.8
40	23.2	27.3	31.6	36.3	41.3	46.6	52.2	58.3
45	23.8	27.9	32.4	37.2	42.3	47.8	53.5	59.7
50	24.2	28.4	32.9	37.8	43.0	48.5	54.4	60.6
55	24.6	28.8	33.4	38.4	43.7	49.3	55.2	61.6
60	24.9	29.3	34.0	39.0	44.4	50.1	56.1	62.5

Wind Speeds are per ASCE 7-10 for Nominal 3 – second gust at 33 ft above ground.
MRH=Mean Roof Height in Feet
For Roof Pitches 6:12 and Less Equates to Roof Slopes 7 deg ≤ Φ ≤ 27 deg for Zone 3
For Tile Calculations

TABLE 3

Mechanical Roof Tile Resistance Values (ft-lbf) For Field Tile

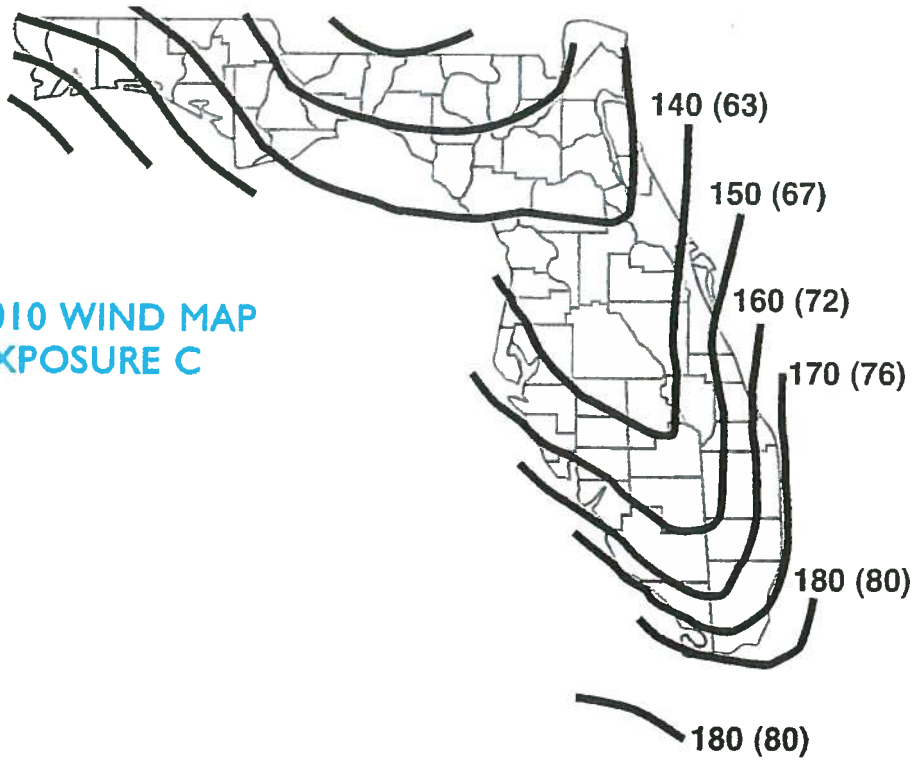
Deck Thickness	Method	Fastener Type	Attachment Description	Low	Medium	High
15/32"	Direct Deck	Nail	1 SS, 1C	25.2	25.2	35.5
			2 SS, 1C	38.1	38.1	44.3
			2RS	39.1	36.1	28.6
			2 RS 4" HL	50.3	43.0	33.1
		Screw	1 No. 8	39.1	33.2	28.7
			2 No. 8	50.2	55.5	51.3
	Batten	Nail	1 SS, 1C	27.5	27.5	29.4
			2 SS, 1C	37.6	37.6	47.2
			2 RS	24.6	36.4	26.8
		Screw	1 No. 8	25.6	30.1	25.5
			2 No. 8	36.1	41.9	37.1
19/32"	Direct Deck	Nail	2 RS	46.4	45.5	41.2

SS = Smooth Shank Nail or Screw Shank
C = Clip
RS = Ring Shank
HL = Head Lap

For Uplift Resistance Values for Foam Adhesives, see TRI Technical Bulletin 2012-100, which is available for download at www.Tileroofing.org

For mean roof heights over 60 ft, engineering calculations must be submitted for permitting.

ASCE 7-2010 WIND MAP FOR EXPOSURE C



Appendix B

FLORIDA DEPARTMENT OF
Business & Professional Regulation

Florida dbpr

Product Approval
USER: Public User

FL #	FL5259-R28
Application Type	Revision
Code Version	2017
Application Status	Approved
Comments	
Archived	
Product Manufacturer	POLYGLASS USA
Address/Phone/Email	1111 W. Newport Center Drive Deerfield Beach, FL 33442 (954) 233-1378 Ext 242 alender@polyglass.com
Authorized Signature	Ariel Lender alender@polyglass.com
Technical Representative	Maury Alpert
Address/Phone/Email	1111 W. Newport Center Drive Deerfield Beach, FL 33442 (912) 429-8610 MAlpert@polyglass.com
Quality Assurance Representative	Ariel Lender
Address/Phone/Email	1111 W. Newport Center Drive Deerfield Beach, FL 33442 (954) 233-1230 ALender@polyglass.com
Category	Roofing
Subcategory	Underlayments
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer 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	10/05/2018
Validated By	John W. Knezevich, PE ✓ Validation Checklist - Hardcopy Received
Certificate of Independence	FL5259_R28_COI_2018_01_COI_NIEMINEN.pdf

Referenced Standard and Year (of Standard)

Standard	Year
ASTM D1970	2015
ASTM D226	2009
ASTM D4798	2011

ASTM D6164	2011
ASTM D6222	2011
FM 4474	2011
FRSA/TRI April 2012	2012
UL 1897	2012

Equivalence of Product Standards Certified By

Sections from the Code

Product Approval Method	Method 1 Option D
Date Submitted	01/24/2018
Date Validated	01/29/2018
Date Pending FBC Approval	01/30/2018
Date Approved	04/10/2018

Summary of Products

FL #	Model, Number or Name	Description
5259.1	Polyglass Roof Underlayments	Roofing underlayments

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 (over concrete deck) for use under foam-on tile systems (where the underlayment forms part of the load-path). Refer to ER Section 5.6.4 for other systems, other deck types and associated maximum design pressures. 2.) Refer to ER Section 5 for other limits of use.

Installation Instructions
FL5259_R28_II_2018_01_FINAL_ER_POLYGLASS_UNDERLAYMENTS_FL5259-R28.pdf
Verified By: Robert Nieminen PE-59166
Created by Independent Third Party: Yes

Evaluation Reports
FL5259_R28_AE_2018_01_FINAL_ER_POLYGLASS_UNDERLAYMENTS_FL5259-R28.pdf
Created by Independent Third Party: Yes

Back Next

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

ENGINEER EVALUATE TEST CONSULT CERTIFY

EVALUATION REPORT

Polyglass USA, Inc.
1111 West Newport Center Drive
Deerfield Beach, FL 33442
(954) 233-1230

Evaluation Report P12060.02.09-R24
FL5259-R28
Date of Issuance: 02/24/2009
Revision 24: 01/24/2018

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 **6th Edition (2017) Florida Building Code** sections noted herein.

DESCRIPTION: Polyglass Roof Underlayments

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

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

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

This Evaluation Report consists of pages 1 through 14.

Prepared by:

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

ROBERT J. M. NIEMINEN LICENSE No 59166 STATE OF FLORIDA PROFESSIONAL ENGINEER

The facsimile seal appearing was authorized by Robert Nieminen, P.E. on 01/24/2018. This does not serve as an electronically signed document.

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2. NEMO|etc. 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. 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.

NEMO | etc.

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 **6th Edition (2017) Florida Building Code** through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

2. STANDARDS:

Section	Property	Standard	Year
1504.3.1	Wind Uplift	FM 4474	2011
1504.3.1	Wind Uplift	UL 1897	2012
1507.2.3 / 1507.1.1	Physical Properties	ASTM D226	2009
1507.2.4 / 1507.1.1, 1507.2.9.2	Physical Properties	ASTM D1970	2015
1507.3.3	Physical Properties	FRSA/TRI April 2012	2012
1507.11.2	Physical Properties	ASTM D6164	2011
1507.11.2	Physical Properties	ASTM D6222	2011
TAS 110	Accelerated Weathering	ASTM D4798	2011

3. REFERENCES:

Entity	Examination	Reference	Date
FM Approvals (TST 1867)	Wind Uplift	3004091	01/12/2000
PRI (TST 5878)	Physical Properties	PRI01111	04/08/2002
PRI (TST 5878)	Physical Properties	PUSA-005-02-01	01/31/2002
PRI (TST 5878)	Physical Properties	PUSA-013-02-01	12/23/2002
PRI (TST 5878)	Physical Properties	PUSA-013-02-02	12/23/2002
PRI (TST 5878)	Physical Properties	PUSA-013-02-03	12/23/2002
PRI (TST 5878)	Physical Properties	PUSA-018-02-01	07/14/2003
PRI (TST 5878)	Physical Properties	PUSA-028-02-01	07/13/2005
PRI (TST 5878)	Physical Properties	PUSA-033-02-01	01/12/2006
PRI (TST 5878)	Physical Properties	PUSA-035-02-01	09/29/2006
PRI (TST 5878)	Physical Properties	PUSA-055-02-02	12/10/2007
PRI (TST 5878)	Physical Properties	PUSA-061-02-02	01/28/2008
PRI (TST 5878)	Physical Properties	PUSA-076-02-01	02/22/2008
PRI (TST 5878)	Physical Properties	PUSA-083-02-01	04/14/2008
PRI (TST 5878)	Physical Properties	PUSA-088-02-01	07/29/2009
MTI (TST 2508)	Physical Properties	JX20H7A	04/01/2008
MTI (TST 2508)	Physical Properties	RX14E8A	01/29/2009
ERD (TST 6049)	Physical Properties	11752.09.99-1	02/08/2000
ERD (TST 6049)	Wind Uplift	11757.08.01-1	08/13/2001
ERD (TST 6049)	Wind Uplift	11776.06.02	01/16/2003
ERD (TST 6049)	Physical Properties	02200.07.03	07/14/2003
ERD (TST 6049)	Wind Uplift	P1740.01.07	01/04/2007
ERD (TST 6049)	Physical Properties	P5110.04.07-1	04/11/2007
ERD (TST 6049)	Wind Uplift	P9260.03.08	03/21/2008
ERD (TST 6049)	Physical Properties	P13450.08.09	08/13/2009
ERD (TST 6049)	Wind Uplift	P30540.11.09-R1	11/30/2009
ERD (TST 6049)	Physical Properties	P11030.11.09-1	11/30/2009
ERD (TST 6049)	Wind Uplift	P11030.11.09-2	11/30/2009
ERD (TST 6049)	Physical Properties	P11030.11.09-3	11/30/2009
ERD (TST 6049)	Physical Properties	P33360.06.10	06/25/2010
ERD (TST 6049)	Physical Properties	P33370.03.11	03/02/2011
ERD (TST 6049)	Physical Properties	P33370.04.11	04/26/2011
ERD (TST 6049)	Physical Properties	P37300.10.11	10/19/2011

Entity	Examination	Reference	Date
ERD (TST 6049)	Physical Properties	P40390.08.12-1	08/06/2012
ERD (TST 6049)	Physical Properties	P40390.08.12-2	08/07/2012
ERD (TST 6049)	Physical Properties	C41420.09.12-3	09/11/2012
ERD (TST 6049)	Wind Uplift	P39680.03.13	03/04/2013
ERD (TST 6049)	Physical Properties	P45370.04.13	04/26/2013
ERD (TST 6049)	Wind Uplift	P1738.02.07-R2	04/29/2013
ERD (TST 6049)	Wind Uplift	11757.04.01-1-R1	04/30/2013
ERD (TST 6049)	Wind Uplift	P41630.08.13	08/06/2013
ERD (TST 6049)	Wind Uplift	P11751.05.03-R1	11/26/2013
ERD (TST 6049)	Wind Uplift	P11781.11.03-R1	11/26/2013
ERD (TST 6049)	Physical Properties	P45270.05.14	05/12/2014
ERD (TST 6049)	Physical Properties	6020.07.14-1	09/08/2014
ERD (TST 6049)	Physical Properties	6020.09.14-2	09/08/2014
ERD (TST 6049)	Physical Properties	6020.09.14-3	09/08/2014
ERD (TST 6049)	Physical Properties	6020.09.14-4	09/08/2014
ERD (TST 6049)	Physical Properties	6020.09.14-5	09/08/2014
ERD (TST 6049)	Physical Properties	6020.09.14-6	09/08/2014
ERD (TST 6049)	Physical Properties	P46520.10.14	10/03/2014
ERD (TST 6049)	Physical Properties	P43290.10.14	10/17/2014
ERD (TST 6049)	Physical Properties	PLYG-SC7550.03.15	03/24/2015
ERD (TST 6049)	Physical Properties	P40390.04.15	04/03/2015
ERD (TST 6049)	Physical Properties	P44360.10.14-R1	05/18/2015
ERD (TST 6049)	Physical Properties	PLYG-SC8080.05.15-1	05/20/2015
ERD (TST 6049)	Wind Uplift	PLYG-SC8905.05.16-1	05/17/2016
ERD (TST 6049)	Physical Properties	PLYG-SC8080.07.16	07/16/2016
ERD (TST 6049)	Wind Uplift	PLYG-SC12025.10.16	10/12/2016
ERD (TST 6049)	Physical Properties	PLYG-SC13040.12.16	12/27/2016
ERD (TST 6049)	Physical Properties	PLYG-SC11900.03.17	03/10/2017
ERD (TST 6049)	Physical Properties	PLYG-SC12115.08.17	08/08/2017
ICC-ES (EVL 2396)	IBC Compliance	ESR-1697	11/01/2014
Miami-Dade (CER 1592)	HVHZ Compliance	NOA 14-0717.08	01/22/2015
Polyglass USA	Manufacturing Affidavit	Products Current	02/18/2009
Polyglass USA	P/L Affidavit	Mule-Hide Cross Ltg	03/01/2008
Polyglass USA	Materials Affidavit	Polystick SA Compound	08/18/2011
UL, LLC. (QUA9625)	Quality Control	Service Confirmation	Exp. 10/05/2018

4. PRODUCT DESCRIPTION:

4.1 Mechanically Fastened Underlayments:

4.1.1 **Elastobase** is a fiberglass reinforced, SBS modified bitumen base sheet.

4.1.2 **Elastobase P** is a polyester-reinforced, SBS modified bitumen base sheet.

4.1.3 **Polyglass G2 Base** is a fiberglass-reinforced, asphaltic base sheet.

4.1.4 **Polyglass APP Base** is a fiberglass-reinforced, APP modified bitumen base sheet.

4.2 Self-Adhering Underlayments:

4.2.1 **Polystick MTS** or **Polystick MTS PLUS** is a nominal 60-mil thick rubberized asphalt waterproofing membrane, glass fiber reinforced, surfaced with polyolefinic film surface; meets FRSA/TRI April 2012.

4.2.2 **Polystick IR-Xe** is a nominal 60-mil thick rubberized asphalt waterproofing membrane, glass fiber reinforced, with an aggregate surface; meets ASTM D1970.

4.2.3 **Polystick TU Plus** is a nominal 80-mil thick rubberized asphalt waterproofing membrane, glass fiber reinforced, with a polyester fabric surface; meets ASTM D1970 and FRSA/TRI April 2012.

4.2.4 **Polystick TU P** is a nominal 130-mil thick rubberized asphalt waterproofing membrane, glass-fiber/polyester reinforced, with a granular surface; meets FRSA/TRI April 2012.

4.2.5 **Polystick TU Max** is a nominal 60-mil thick rubberized asphalt waterproofing membrane with a 190 g/m^2 polyester fabric surface; meets ASTM D1970 and FRSA/TRI April 2012.

4.2.6 **Polyflex SAP, Polyflex SAP FR, Mule-Hide SA-APP Cap Sheet** and **Mule-Hide SA-APP Cap Sheet (FR)** are polyester reinforced, APP modified bitumen cap sheets; meet FRSA/TRI April 2012.

4.2.7 **Polystick Dual Pro™** is a nominal 60-mil thick dual-layer rubberized asphalt waterproofing membrane, fiberglass reinforced, with a polyester fabric surface; meets ASTM D1970.

4.2.8 **Polystick Tile Pro™** is a nominal 60-mil thick dual-layer rubberized asphalt waterproofing membrane, fiberglass reinforced, with a polyester fabric surface; meets ASTM D1970 and FRSA/TRI April 2012.

4.2.9 **Polystick MU-X** is a nominal 54-mil thick dual-layer rubberized asphalt waterproofing membrane, fiberglass reinforced, with a polypropylene film surface; meets AC188 and physical requirements of ASTM D1970 (See Section 5.8).

4.3 Mechanically Fastened and/or Bonded Underlayments:

4.3.1 **Elastoflex G TU** is a polyester reinforced, modified bitumen tile underlayment composed of a sand-surfaced SBS modified bitumen back-side and granule-surfaced APP modified bitumen top-side. **Elastoflex G TU** is for use as an alternate to "Mineral Surface Roll Roofing" (ASTM D6380, Class M) in the "Single Ply System" from FRSA/TRI April 2012 (04-12) beneath mechanically fastened tile roof systems or Hot Asphalt applied "Cap Sheet" in the "Two Ply System" from FRSA/TRI April 2012 (04-12) beneath mechanically fastened or adhered tile roof systems.

4.3.2 **Elastoflex S6 G** and **Elastoflex S6 G FR** are polyester reinforced, SBS modified bitumen cap sheets; meet ASTM D6164. **Elastoflex S6 G** and **Elastoflex S6 G FR** are for use as an alternate to "Mineral Surface Roll Roofing" (ASTM D6380, Class M) in the "Single Ply System" from FRSA/TRI April 2012 (04-12) beneath mechanically fastened tile roof systems. **Elastoflex S6 G** is for use as an alternate to Hot Asphalt applied "Cap Sheet" in the "Two Ply System" from FRSA/TRI April 2012 (04-12) beneath mechanically fastened or adhered tile roof systems. **Elastoflex S6 G FR** is for use as an alternate to Hot Asphalt applied "Cap Sheet" in the "Two Ply System" from FRSA/TRI April 2012 (04-12) beneath mechanically fastened tile roof systems.

4.3.3 **Polyflex G** and **Polyflex G FR** are polyester reinforced, APP modified bitumen cap sheets; meet ASTM D6222. **Polyflex G** is for use as an alternate to Heat Applied "Cap Sheet" in the "Two Ply System" from FRSA/TRI April 2012 (04-12) beneath mechanically fastened or adhered tile roof systems. **Polyflex G FR** is for use as an alternate to Heat Applied "Cap Sheet" in the "Two Ply System" from FRSA/TRI April 2012 (04-12) beneath mechanically fastened tile roof systems.

5. LIMITATIONS:

5.1 This is a building code evaluation. Neither NEMO|etc. nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

5.2 This Evaluation Report is not for use in the HVHZ.

5.3 Fire Classification is not part of this Evaluation Report; refer to current Approved Roofing Materials Directory for fire ratings of this product.

5.4 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.

5.5 Allowable Roof Covers:

TABLE 1: ROOF COVER OPTIONS						
Underlayment	**Asphalt Shingles**	**Nail-On Tile**	**Foam-On Tile**	**Metal**	**Wood Shakes & Shingles**	**Slate**
Elastobase	Yes	Yes (Base Sheet in 2-ply system)	Yes (Base Sheet in 2-ply system)	Yes	Yes	Yes
Elastobase P	Yes	Yes (Base Sheet in 2-ply system)	Yes (Base Sheet in 2-ply system)	Yes	Yes	Yes
Polyglass G2 Base	No	Yes (Base Sheet in 2-ply system)	Yes (Base Sheet in 2-ply system)	No	No	No
Polyglass APP Base	No	Yes (Base Sheet in 2-ply system)	Yes (Base Sheet in 2-ply system)	No	No	No
Polystick MTS or MTS PLUS	Yes	Yes	No	Yes	Yes	Yes
Polystick IR-Xe	Yes	No	No	No	Yes	Yes
Polystick TU P	No	Yes	Yes (See 5.5.1)	No	No	No
Polystick TU Plus	Yes	Yes	Yes (See 5.5.1)	Yes	Yes	Yes
Polystick TU Max	No	Yes	Yes (See 5.5.1)	Yes	No	No
Polystick Dual Pro	Yes	No	No	Yes	Yes	Yes
Polystick Tile Pro	Yes	Yes	Yes (See 5.5.1)	Yes	Yes	Yes
Polystick MU-X	Yes	No	No	Yes	Yes	Yes
Elastoflex S6 G	Yes	Yes	Yes (See 5.5.1)	No	Yes	Yes
Elastoflex S6 G FR	Yes	Yes	No	No	Yes	Yes
Elastoflex G TU	Yes	Yes	Yes (See 5.5.1)	No	Yes	Yes
Polyflex G	Yes	Yes	Yes (See 5.5.1)	No	Yes	Yes
Polyflex G FR	Yes	Yes	No	No	Yes	Yes
Polyflex SAP or SAP FR	Yes	Yes	Yes (See 5.5.1)	No	Yes	Yes
Mule-Hide SA-APP Cap Sheet or SA-APP Cap Sheet (FR)	Yes	Yes	Yes (See 5.5.1)	No	Yes	Yes

5.5.1 "Foam-On Tile" is limited to use of the following Approved tile adhesives / underlayment combinations.

TABLE 1A: ALLOWABLE TILE ADHESIVE / UNDERLAYMENT COMBINATIONS[1]		
Adhesive	**Florida Product Approval**	**Underlayments**
DAP Foam Touch 'n Seal StormBond Roof Tile Adhesive	FL14506	Polystick TU Plus, Polystick TU Max
Dow TileBond™	FL22525	Polystick TU P, Polystick TU Plus, Polyflex SAP or Tile Pro
ICP Adhesives Polyset® AH-160	FL6332	Polystick TU P, Polystick TU Plus, Polystick TU Max, Polystick Tile Pro, Elastoflex G TU, Elastoflex S6 G, Polyflex G, Polyflex SAP, Polyflex SA Cap FR, Mule-Hide SA-APP Cap Sheet or Mule-Hide SA-APP Cap Sheet (FR)
ICP Adhesives Polyset® RTA-1	FL6276	Polystick TU P, Polystick TU Plus, Polystick TU Max, Polystick Tile Pro, Elastoflex G TU, Elastoflex S6 G, Polyflex G, Polyflex SAP, Polyflex SA Cap FR, Mule-Hide SA-APP Cap Sheet or Mule-Hide SA-APP Cap Sheet (FR)

[1] *Refer to Tile Manufacturer's or Adhesive Manufacturer's Florida Product Approval for Overturning Moment Resistance Performance.*

5.6 Allowable Substrates:

5.6.1 Direct-Bond to Deck:

Polystick (all variations), Dual Pro, Tile Pro, Polyflex SAP or SAP FR, Mule-Hide SA-APP Cap Sheet or SA-APP Cap Sheet (FR) self-adhered to:

- New untreated plywood; ASTM D41 primed new untreated plywood; Existing plywood; ASTM D41 primed existing plywood; New or existing, unprimed OSB; ASTM D41 primed OSB; Southern Yellow Pine; ASTM D41 primed Southern Yellow Pine; ASTM D41 primed structural concrete; Huber Engineered Woods "ZIP System" Panels (designed and installed to meet wind loads for project).

Note: Polyglass does not require priming of new or existing plywood or OSB sheathing. New or existing plywood or OSB sheathing should be cleaned of all dirt and debris prior to application of Polystick membranes.

Elastoflex G TU, Elastoflex S6 G or Elastoflex S6 G FR in hot asphalt to:

- ASTM D41 primed structural concrete.

Polyflex G or Polyflex G FR torch-applied to:

- ASTM D41 primed structural concrete.

5.6.2 Bond-to-Insulation:

Polystick (all variations), Polyflex SAP or SAP FR, Mule-Hide SA-APP Cap Sheet or SA-APP Cap Sheet (FR) self-adhered to:

- ASTM C1289, Type II, Class 1 polyisocyanurate or Type V polyisocyanurate-composite insulation; Dens Deck DuraGuard; Dens Deck Prime; or SECUROCK Gypsum-Fiber Roof Board.

Elastoflex G TU, Elastoflex S6 G or Elastoflex S6 G FR in hot asphalt to:

- Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board.

Polyflex G or Polyflex G FR torch-applied to:

- ASTM D41 primed structural concrete; Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board.

For installation under mechanically attached prepared roof coverings, insulation shall be attached per minimum requirements of the prepared roof covering manufacturer's Product Approval. For installations under foam-on tile systems, insulation attachment shall be designed by a qualified design professional and installed based on testing of the insulation/underlayment system in accordance with FBC Section 1504.3.1.

5.6.3 Bond to Mechanically Attached Base Layer:

Polystick (all variations), Polyflex SAP or SAP FR, Mule-Hide SA-APP Cap Sheet or SA-APP Cap Sheet (FR) Dual Pro or Tile Pro self-adhered to:

- ASTM D226, Type I or II felt; Elastobase; Elastobase P or Mule-Hide Nail Base.

Elastoflex G TU, Elastoflex S6 G or Elastoflex S6 G FR in hot asphalt to:

- ASTM D226, Type I or II felt; Elastobase; Elastobase P, Mule-Hide Nail Base or Polyglass G2 Base.

Polyflex G or Polyflex G FR torch-applied to:

- Elastobase; Elastobase P, Mule-Hide Nail Base, Polyglass G2 Base or Polyglass APP Base.

For installations under mechanically attached prepared roof coverings, base layer shall be attached per minimum codified requirements. For installations under foam-on tile systems, base layer shall be attached per minimum requirements of FRSA/TRI April 2012 (04-12), Appendix A, Table 1, or as listed in Section 5.6.4 herein, or as tested in accordance with FBC Section 1504.3.1.

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

#1 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 or Polystick MTS PLUS, self-adhered.
Underlayment: Polystick TU P, Polystick TU Plus, Polystick TU Max, Polyflex SAP, Polyflex SAP FR, Mule-Hide SA-APP Cap Sheet and Mule-Hide SA-APP Cap Sheet (FR), self-adhered.

#2 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 or Polystick MTS PLUS, self-adhered.
Underlayment: Polystick TU P, Polystick TU Plus, Polystick TU Max, Polyflex SAP, Polyflex SAP FR, Mule-Hide SA-APP Cap Sheet and Mule-Hide SA-APP Cap Sheet (FR), self-adhered and back-nailed within the selvedge-edge side laps using 12 ga. x 1¼" ring shank nails through 32 ga., 1-5/8" diameter tin caps spaced 12-inch o.c.

#3 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 or Polystick MTS PLUS, self-adhered.
Underlayment: Polystick TU P, Polystick TU Plus, Polystick TU Max, Polyflex SAP, Polyflex SAP FR, Mule-Hide SA-APP Cap Sheet and Mule-Hide SA-APP Cap Sheet (FR), self-adhered and back-nailed within the selvedge-edge side laps using 12 ga. x 1¼" ring shank nails through 32 ga., 1-5/8" diameter tin caps spaced 12-inch o.c.

#4 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 or Polystick MTS PLUS, self-adhered.
Joints: Min. 4-inch wide strips of Elastoflex SA-V over all plywood joints.
Underlayment: Polystick TU P, Polystick TU Plus, Polystick TU Max, Polyflex SAP, Polyflex SAP FR, Mule-Hide SA-APP Cap Sheet and Mule-Hide SA-APP Cap Sheet (FR), self-adhered.

#5 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 or Polystick MTS PLUS, self-adhered.
Underlayment: Polystick TU P, Polystick TU Plus, Polystick TU Max, Tile Pro, Polyflex SAP, Polyflex SAP FR, Mule-Hide SA-APP Cap Sheet and Mule-Hide SA-APP Cap Sheet (FR), self-adhered.

#6 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 G TU or Elastoflex S6 G, applied in full mopping of hot asphalt or Polyflex G, torch-applied.

#7 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 or Polystick MTS PLUS, self-adhered.
Underlayment: Polystick TU P, Polystick TU Plus, Polystick TU Max, Polyflex SAP, Polyflex SAP FR, Mule-Hide SA-APP Cap Sheet and Mule-Hide SA-APP Cap Sheet (FR), self-adhered.

#8 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 or Polystick MTS PLUS, self-adhered.
Underlayment: Polystick TU P, Polystick TU Plus, Polystick TU Max, Polyflex SAP, Polyflex SAP FR, Mule-Hide SA-APP Cap Sheet and Mule-Hide SA-APP Cap Sheet (FR), self-adhered.

#9 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 G TU or Elastoflex S6 G, applied in full mopping of hot asphalt.

#10 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 or Polystick MTS PLUS, self-adhered.
Underlayment: Polystick TU P, Polystick TU Plus, Polystick TU Max, Polyflex SAP, Polyflex SAP FR, Mule-Hide SA-APP Cap Sheet and Mule-Hide SA-APP Cap Sheet (FR), self-adhered or Elastoflex G TU, applied in full mopping of hot asphalt.

#11 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 or Polystick MTS PLUS, self-adhered.
Underlayment: Polystick TU P, Polystick TU Plus, Polystick TU Max, Polyflex SAP, Polyflex SAP FR, Mule-Hide SA-APP Cap Sheet and Mule-Hide SA-APP Cap Sheet (FR), self-adhered or Elastoflex G TU or Elastoflex S6 G, applied in full mopping of hot asphalt.

#12 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 G TU or Elastoflex S6 G, applied in full mopping of hot asphalt or Polyflex G, torch-applied.

#13 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 G TU or Elastoflex S6 G, applied in full mopping of hot asphalt or Polyflex G, torch-applied.

#14 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 or Polystick MTS PLUS, self-adhered.
Underlayment: Polystick TU P, Polystick TU Plus, Polystick TU Max, Polyflex SAP, Polyflex SAP FR, Mule-Hide SA-APP Cap Sheet and Mule-Hide SA-APP Cap Sheet (FR), self-adhered.

#15 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 G TU or Elastoflex S6 G, applied in full mopping of hot asphalt or Polyflex G, torch-applied.

#16 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 G TU or Elastoflex S6 G, applied in full mopping of hot asphalt or Polyflex G, torch-applied.

#17 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 G TU or Elastoflex S6 G, applied in full mopping of hot asphalt or Polyflex G, torch-applied.

#18 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 APP 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 G TU or Elastoflex S6 G, applied in full mopping of hot asphalt or torch-applied or Polyflex G, torch-applied.

#19 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 APP 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 G TU or Elastoflex S6 G, applied in full mopping of hot asphalt or torch-applied or Polyflex G, torch-applied.

#20 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 G TU or Elastoflex S6 G, applied in full mopping of hot asphalt or Polyflex G, torch-applied.

#21 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 G TU or Elastoflex S6 G, applied in full mopping of hot asphalt or Polyflex G, torch-applied.

#22 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 G TU or Elastoflex S6 G, applied in full mopping of hot asphalt.

#23 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 APP 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 G TU or Elastoflex S6 G, applied in full mopping of hot asphalt or torch-applied or Polyflex G, torch-applied.

#24 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 or Polystick MTS PLUS, self-adhered.
Underlayment: Polystick TU P, Polystick TU Plus, Polystick TU Max, Polyflex SAP, Polyflex SAP FR, Mule-Hide SA-APP Cap Sheet and Mule-Hide SA-APP Cap Sheet (FR), self-adhered.

#25 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 G TU or Elastoflex S6 G, applied in full mopping of hot asphalt or Polyflex G, torch-applied.

#26 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 or Polystick MTS PLUS, self-adhered
Underlayment: Polystick TU P, Polystick TU Plus, Polystick TU Max, Polyflex SAP, Polyflex SAP FR, Mule-Hide SA-APP Cap Sheet and Mule-Hide SA-APP Cap Sheet (FR), self-adhered.

#27 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 G TU or Elastoflex S6 G, applied in full mopping of hot asphalt or Polyflex G, torch-applied.

#28 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 G TU or Elastoflex S6 G, applied in full mopping of hot asphalt.

5.6.4.1 All other direct-deck, adhered Polyglass underlayment systems beneath foam-on tile systems carry a Maximum Design Pressure of -45 psf.

5.6.4.2 For mechanically attached Base Sheet, the maximum design pressure for the selected assembly shall meet or exceed that required under FRSA/TRI April 2012 (04-12), Appendix A, Table 1A.

Alternatively, the maximum design pressure for the selected assembly shall meet or exceed the Zone 1 design pressure determined in accordance with FBC 1609. In this case, Zones 2 and 3 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 and Roofing Application Standard RAS 117. Assemblies marked with an asterisk* carry the limitations set forth in Section 2.2.10.1 of FM Loss Prevention Data Sheet 1-29 (January 2016) for Zone 2/3 enhancements.

5.7 Exposure Limitations:

Elastobase, Elastobase P, Polyglass G2 Base or Polyglass APP Base shall not be left exposed for longer than 30-days after installation.

Polystick IR-Xe or Polystick MU-X shall not be left exposed for longer than 90-days after installation.

Polystick MTS, MTS PLUS, TU P, TU Plus, TU Max, Dual Pro, Tile Pro or Elastoflex G TU shall not be left exposed for longer than 180-days after installation.

Polyflex SAP or SAP FR, or Mule-Hide SA-APP Cap Sheet or SA-APP Cap Sheet (FR) does not have an exposure limitation, unless the prepared roof covering is to be adhesive-set tile, in which case the maximum exposure is 30 days.

Elastoflex S6 G or Elastoflex S6 G FR or Polyflex G or Polyflex G FR does not have an exposure limitation, unless the prepared roof covering is to be adhesive-set tile (Elastoflex S6 G or Polyflex G only), in which case the maximum exposure is 180 days.

5.8 **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.

5.9 Tile Slippage Limitations (FRSA/TRI April 2012 (04-12)):

When loading roof tiles on the underlayment in direct-deck tile 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 2: TILE SLIPPAGE LIMITATIONS FOR DIRECT-DECK TILE INSTALLATIONS

Underlayment	Tile Profile	Staging Method	Maximum Slope
Elastoflex G TU	Flat	10-tile stack	7:12
	Lugged	8-tile stack (6 over 2)	6:12
Elastoflex S6 G or S6 G FR	Flat or Lugged	6-tile stack (4 over 2)	4:12
Polystick MTS or MTS PLUS	Flat	6-tile stack (4 over 2)	5:12
	Lugged	6-tile stack (4 over 2)	4:12
Polystick Tile Pro	Flat or Lugged	6-tile stack (4 over 2)	7:12
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	6-tile stack (4 over 2)	6:12
	Lugged	6-tile stack (4 over 2)	4:12
Polystick TU Plus	Flat or Lugged	6-tile stack (4 over 2)	7:12
	Flat or Lugged	10-tile stack	6:12
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

6. INSTALLATION:

6.1 **Polyglass Roof Underlayments** shall be installed in accordance with **Polyglass** published installation requirements subject to the Limitations set forth in Section 5 herein and the specifics noted below.

6.2 Re-fasten any loose decking panels, and check for protruding nail heads. Sweep the substrate thoroughly to remove any dust and debris prior to application, and prime the substrate (if applicable).

6.3 Elastobase, Elastobase P or Mule-Hide Nail Base:

6.3.1 Non-Tile Applications:

Shall be installed in compliance with the codified requirements for ASTM D226, Type II underlayment in **FBC Table 1507.1.1** for the type of prepared roof covering to be installed.

Elastobase, Elastobase P or **Mule-Hide Nail Base** may be covered with a layer of **Polystick, Polyflex SAP, Polyflex SA P FR, Mule-Hide SA-APP Cap Sheet** or **SA-APP Cap Sheet (FR)**, self-adhered, **Elastoflex G TU, 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:

Elastobase, Elastobase P or Mule-Hide Nail Base are limited to use as a mechanically attached base sheet in the "Two Ply System" from **FRSA/TRI April 2012 (04-12)**. Reference is made to **Table 1** and **Section 5.6.4** herein, coupled with **FRSA/TRI April 2012 (04-12) Installation Manual**.

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

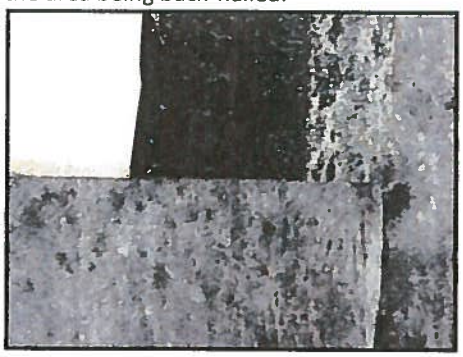
6.4.1 Shall be installed in compliance with the codified requirements for ASTM D1970 (except Polystick TU P) underlayment in **FBC Table 1507.1.1** for the type of prepared roof covering to be installed.

6.4.2 Direct-to-Deck with Mechanically Fastened Roof Covers:

All self-adhering materials, with the exception of **Polystick TU Plus, Polyflex SAP** or **SAP FR** and **Mule-Hide SA-APP Cap Sheet** or **SA-APP Cap Sheet (FR)** should be back-nailed in selvage edge seam in accordance with Polyglass / Mule-Hide back nailing guidelines. Nails shall be corrosion resistant, 11 gauge ring-shank type with a minimum 1-inch diameter metal disk or Simplex-type metal cap nail, at a minimum rate of 12" o.c. **Polystick TU Plus** should be back-nailed using the above noted fasteners and spacing, in area marked "nail area, area para clavar" on the face of membrane. The head lap membrane is to cover the area being back-nailed.

All seal-lap seams (selvage laps) must be firmly rolled with a minimum 28 lb. hand roller to ensure full contact and adhesion.

For **Dual Pro** and **Tile Pro**, align the edge of the top sheet to the end of the glue pattern (the sheet will overlap the fabric).



View of Ovelap Seam of Dual Pro and Tile Pro

All over-fabric and over-granule end-laps shall have a 6-inch wide, uniform layer of **Polyplus 50 Premium Modified Wet/Dry Cement** or **Polyglass PG500 Modified Cement** applied in between the application of the lap.

Polystick TU Plus, Dual Pro and **Tile Pro** may not be used in any exposed application such as crickets, exposed valleys, or exposed roof to wall details

Repair of Polystick membranes is to be accomplished by applying **Polyplus 50 Premium Modified Wet/Dry Cement** or **Polyglass PG500 Modified Cement** to the area in need of repair, followed by a minimum 6 x 6 inch patch of the Polystick material of like kind, set and hand rolled in place over the repair area. Patch laps, if needed, shall be installed in a water shedding manner.

All **Polystick** membranes shall be installed to ensure full contact with approved substrates. Polyglass requires a minimum of 40-lb weighted-roller or, on steep slopes, use of a stiff broom with approximately 40-lbs of load applied for the field membrane. Hand rollers are acceptable for rolling of patches, laps (min. 28 lb roller) or small areas of the roof that are not accessible to a large roller or broom.

6.4.3 Tile Applications ***(not allowed for Polystick Dual Pro, IR-Xe or Polystick MU-X)***:

Reference is made to **FRSA/TRI April 2012 (04-12) Installation Manual** and **Table 1** herein, using the instructions noted above as a guideline.

For mechanically fastened tile roofing over 2-ply system, consisting of Base Sheet and self-adhering top sheet(s), Base Sheet fastening shall be not less than **FRSA/TRI April 2012 (04-12), Table 1**.

For adhesive-set tile applications, refer to **Section 5.6.4** herein.

6.4.4 Two (2) Ply Underlayment Systems:

Polystick MTS or **MTS PLUS** followed by **Polystick MTS, MTS PLUS, TU P, TU Plus, TU Max, Tile Pro, MU-X** or **Polyflex SAP** 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 or **MTS PLUS** followed by **Polystick TU P, TU Plus, TU Max, Tile Pro** or **Polyflex SAP** is allowable for use under foam-on 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 G TU, Elastoflex S6 G or Elastoflex S6 G FR:

6.5.1 **Elastoflex G TU, Elastoflex S6 G** or **Elastoflex S6 G FR** shall be installed in compliance with current Polyglass published installation requirements. For use in tile applications:

- ✓ **Elastoflex G TU** is for use as an alternate to "Mineral Surface Roll Roofing" (ASTM D6380, Class M) in the "Single Ply System" from **FRSA/TRI April 2012 (04-12)** beneath mechanically fastened tile roof systems or the Hot Asphalt applied "Cap Sheet" in the "Two Ply System" from **FRSA/TRI April 2012 (04-12)** beneath mechanically fastened or adhered tile roof systems.
- ✓ **Elastoflex S6 G** is for use as an alternate to "Mineral Surface Roll Roofing" (ASTM D6380, Class M) in the "Single Ply System" from **FRSA/TRI April 2012 (04-12)** beneath mechanically fastened tile roof systems or the Hot Asphalt applied "Cap Sheet" in the "Two Ply System" from **FRSA/TRI April 2012 (04-12)** beneath mechanically fastened or adhered tile roof systems.
- ✓ **Elastoflex S6 G FR** is for use as an alternate to "Mineral Surface Roll Roofing" (ASTM D6380, Class M) in the "Single Ply System" from **FRSA/TRI April 2012 (04-12)** beneath mechanically fastened tile roof systems or the Hot Asphalt applied "Cap Sheet" in the "Two Ply System" from **FRSA/TRI April 2012 (04-12)** beneath mechanically fastened tile roof systems.

6.5.2 For hot-asphalt-applications, **Elastoflex G TU, Elastoflex S6 G** or **Elastoflex S6 G FR** shall be fully asphalt-applied to the substrates noted in Section 5.6. Side laps shall be minimum 3-inch and end-laps minimum 6-inch wide, off-set minimum 3 feet from course to course. Side and end laps shall be fully adhered in a complete mopping of hot asphalt with asphalt extending approximately 3/8-inch beyond the lap edge.

6.6 Polyflex G or Polyflex G FR:

6.6.1 **Polyflex G** or **Polyflex G FR** shall be installed in compliance with current Polyglass published installation requirements. For use in tile applications:

- ✓ **Polyflex G** is for use as an alternate to the Heat Applied "Cap Sheet" in the "Two Ply System" from **FRSA/TRI April 2012 (04-12)** beneath mechanically fastened or adhered tile roof systems (Base Sheet Limited per 5.6.3).
- ✓ **Polyflex G FR** is for use as an alternate to the Heat Applied "Cap Sheet" in the "Two Ply System" from **FRSA/TRI April 2012 (04-12)** beneath mechanically fastened tile roof systems (Base Sheet Limited per 5.6.3).

6.6.2 **Polyflex G** or **Polyflex G FR** shall be fully torch-applied to the substrates noted in Section 5.6. Side laps shall be minimum 3-inch and end-laps minimum 6-inch wide, off-set minimum 3 feet from course to course. Side and end laps shall be fully heat-welded and inspected to ensure minimum 3/8-inch flow of modified compound beyond the lap edge.

6.7 Tile Staging:

6.7.1 Tile shall be loaded and staged in a manner that prevents tile slippage and/or damage to the underlayment. Refer to **Table 2** herein, and **Polyglass** published requirements for tile staging.

6.7.2 Battens and/or Counter-battens, as required by the tile manufacturer and **FRSA/TRI April 2012 (04-12)** must be used on all roof slopes greater than 7:12. Precautions should be taken as needed, such as the use of battens or nail-boards, to prevent tile sliding and/or damage to the underlayment during the loading process.

6.7.3 **Polyglass** specifies the minimum cure time after installation of self-adhering membranes and before loading of roofing tiles is forty-eight (48) hours.

7. BUILDING PERMIT REQUIREMENTS:

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

8. MANUFACTURING PLANTS:

Contact the noted QA agency for information on product locations covered for **F.A.C. 61G20-3** QA requirements. The following plants have qualified products under their respective physical properties specifications.

Plant	Specification	Product(s)
Fernley, NV, Hazleton, PA & Winter Haven, FL	ASTM D1970	Polystick MU-X
Hazleton, PA	M-D 13-0004	Elastoflex G TU
Hazleton, PA & Winter Haven, FL	ASTM D1970	Polystick IR-Xe
	ASTM D1970 & FRSA/TRI April 2012	Polystick TU Plus
	ASTM D1970 & FRSA/TRI April 2012	Polystick TU Max
Tuscaloosa, AL	ASTM D4601, Type II	Polyglass G2 Base
Winter Haven, FL	ASTM D226 (physicals)	Elastobase, Elastobase P
	ASTM D6509	Polyglass APP Base
	FRSA/TRI April 2012	Polystick MTS, Polystick MTS PLUS
	FRSA/TRI April 2012	Polystick TU P
	FRSA/TRI April 2012	Polyflex SAP, Polyflex SA P FR
	ASTM D1970	Polystick Dual Pro
	ASTM D1970 & FRSA/TRI April 2012	Polystick Tile Pro
	ASTM D6164	Elastoflex S6, Elastoflex S6 G FR
	ASTM D6222	Polyflex G, Polyflex G FR

9. QUALITY ASSURANCE ENTITY:

UL, LLC – QUA9625; (314) 578-3406; k.chancellor@us.ul.com

- END OF EVALUATION REPORT -