



**Product Approval**  
USER: Public User

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

► OFFICE OF THE  
SECRETARY

FL #	FL10626-R30
Application Type	Revision
Code Version	2023
Application Status	Approved
Comments	
Archived	<input type="checkbox"/>
Product Manufacturer	GAF
Address/Phone/Email	1 Campus Drive Parisppany, NJ 07054 (800) 766-3411 mstieh@gaf.com
Authorized Signature	Michael Stieh michael.stieh@gaf.com
Technical Representative	William Broussard
Address/Phone/Email	1 Campus Drive Parsippany, NJ 07054 (800) 766-3411 TechnicalQuestionsGAF@gaf.com
Quality Assurance Representative	
Address/Phone/Email	
Category	Roofing
Subcategory	Underlayments
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer <input type="checkbox"/> Evaluation Report - Hardcopy Received
Florida Engineer or Architect Name who developed the Evaluation Report	Robert Nieminen
Florida License	PE-59166
Quality Assurance Entity	UL LLC
Quality Assurance Contract Expiration Date	09/12/2028
Validated By	John W. Knezevich, PE <input checked="" type="checkbox"/> Validation Checklist - Hardcopy Received
Certificate of Independence	<a href="#">FL10626_R30_COI_2024_07_COI_NIEMINEN.pdf</a>

Referenced Standard and Year (of Standard)

<b>Standard</b>	<b>Year</b>
ASTM D1970	2017
ASTM D226	2017
ASTM D4798	2011
ASTM D6164	2016
ASTM D6757	2018
ASTM D8257	2020
FM 4474	2011
FRSA/TRI Manual	2023
TAS 103	2020

Equivalence of Product Standards  
Certified By

Sections from the Code

Product Approval Method

Method 1 Option D

Date Submitted

08/23/2025

Date Validated

08/25/2025

Date Pending FBC Approval

08/26/2025

Date Approved

10/14/2025

**Summary of Products**

FL #	Model, Number or Name	Description
10626.1	GAF Roof Underlayments (HVHZ)	Underlayments for use in steep-slope, prepared roof systems in FBC HVHZ jurisdictions.
<b>Limits of Use</b> <b>Approved for use in HVHZ:</b> Yes <b>Approved for use outside HVHZ:</b> No <b>Impact Resistant:</b> N/A <b>Design Pressure:</b> +N/A/-442.5 <b>Other:</b> Refer to PEER Section 5 for Limits of Use.		<b>Installation Instructions</b> <a href="#">FL10626_R30_II_2025_08_18_FINAL_PEER-GAF-010.B_UNDERLAY_HVHZ_FL10626-R30.pdf</a> Verified By: Robert Nieminen PE-59166 Created by Independent Third Party: Yes <b>Evaluation Reports</b> <a href="#">FL10626_R30_AE_2025_08_18_FINAL_PEER-GAF-010.B_UNDERLAY_HVHZ_FL10626-R30.pdf</a> Created by Independent Third Party: Yes
10626.2	GAF Roof Underlayments (NON-HVHZ)	Underlayments for use in steep-slope, prepared roof systems in FBC NON-HVHZ jurisdictions.
<b>Limits of Use</b> <b>Approved for use in HVHZ:</b> No <b>Approved for use outside HVHZ:</b> Yes <b>Impact Resistant:</b> N/A <b>Design Pressure:</b> +N/A/-442.5 <b>Other:</b> Refer to PEER Section 5 for Limits of Use.		<b>Installation Instructions</b> <a href="#">FL10626_R30_II_2025_08_18_FINAL_PEER-GAF-010.A_UNDERLAY_NON-HVHZ_FL10626-R30.pdf</a> Verified By: Robert Nieminen 59166 Created by Independent Third Party: Yes <b>Evaluation Reports</b> <a href="#">FL10626_R30_AE_2025_08_18_FINAL_PEER-GAF-010.A_UNDERLAY_NON-HVHZ_FL10626-R30.pdf</a> Created by Independent Third Party: Yes

[Back](#)

[Next](#)

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

The State of Florida is an AA/EEO employer. [Copyright 2007-2013 State of Florida.](#) :: [Privacy Statement](#) :: [Accessibility Statement](#) :: [Refund Statement](#)

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

**Product Approval Accepts:**





**NEMO|etc.**

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

ENGINEER

TEST

CONSULT

**P.E. EVALUATION REPORT (PEER)**

**GAF**

1 Campus Drive  
Parsippany, NJ 07054  
(800) 766-3411

PEER-GAF-010.A.R30

FL10626-R30 (NON-HVHZ)

Date of Issuance: 04/25/2008

Revision 30: 08/18/2025

**SCOPE:**

This P.E. Evaluation Report (henceforth 'PEER') is issued under **F.A.C. 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 compliance with the **8<sup>th</sup> Edition (2023) Florida Building Code** [sections noted herein](#).

**DESCRIPTION: GAF Roof Underlayments (NON-HVHZ)**

**LABELING:** Labeling shall be in accordance with the requirements of the Accredited Quality Assurance Agency noted herein and [FBC 1507.1.1](#).

**CONTINUED COMPLIANCE:** This PEER 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 PEERs 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 PEER relative to updated Code requirements with each Code Cycle.

**ADVERTISEMENT:** "NEMO P.E. Evaluated" may be displayed in advertising literature. If any portion of the PEER is displayed, then it shall be done in its entirety.

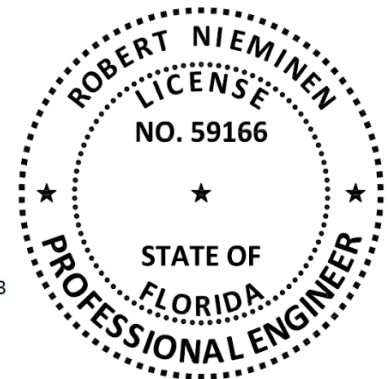
**INSPECTION:** Upon request, a copy of this entire PEER shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This PEER consists of pages 1 through 10.

**Prepared by:**

Digitally signed by  
Robert Nieminen  
Date: 2025.08.18  
'12:32:48 -04'00

This item has been digitally signed and sealed by Robert Nieminen, P.E.  
Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.  
Robert Nieminen, Florida P.E. 59166, FBC ANE1983  
NEMO ETC, LLC, Florida CA #32455



**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 PEERs 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 PEER, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

©2019 NEMO ETC, LLC

**ROOFING COMPONENT EVALUATION:**
**1. SCOPE:**
**Product Category:** Roofing

**Sub-Category:** Underlayment

**Product Approval Method:** Method 1, Option D – Codified Material, Evaluation by Engineer

**Compliance Statement:** GAF Roof Underlayments, as produced by GAF, have demonstrated compliance with the following sections of the 8<sup>th</sup> Edition (2023) Florida Building Code through testing in accordance with the following Standards. Compliance is subject to the [Installation Requirements](#) and [Limitations of Use](#) set forth herein.

**2. STANDARDS:**

SECTION	PROPERTY	STANDARD
1504.3.1	Wind resistance	FM 4474
1507.1.1 / R905.1.1	Material standard	ASTM D226, ASTM D6757, ASTM D8257
1507.1.1, 1507.2.9.2 / R905.1.1, R905.2.8.2	Material standard	ASTM D1970
1507.3.3, R905.3.3	Material standard	FRSA/TRI, 7th Edition
1507.11.2	Material standard	ASTM D6164
TAS 110	Accelerated Weathering	ASTM D4798
TAS 110	Material standard	TAS 103

**3. REFERENCES:**

ENTITY	EXAMINATION	REFERENCE	DATE
ERD (TST6049)	ASTM D1970 (GA)	GAF-SC13285.03.17-3	03/01/17
ERD (TST6049)	ASTM D1970 (GA)	GAF-SC13285.03.17-4	03/01/17
ERD (TST6049)	ASTM D1970 (GA)	GAF-SC13285.03.17-1	03/08/17
ERD (TST6049)	ASTM D1970 (IN)	GAF-SC16440.12.17	12/31/17
NEMO (TST6049)	Physical Properties (ON)	4q-GAF-19-SSMBB-03.A	05/13/19
NEMO (TST6049)	ASTM D1623	4p-DOW-19-SSLAP-01.A-R2	10/01/19
NEMO (TST6049)	ASTM D1970	4j-GAF-20-SSUDL-01.A	12/22/20
NEMO (TST6049)	ASTM D4798, TAS 103	4j-GAF-20-SSUDL-02.A	03/15/21
NEMO (TST6049)	ASTM D1623 & FRSA/TRI	4j-GAF-22-SSUDL-01.A	08/09/22
NEMO (TST6049)	ASTM D1970, D4798	4j-GAF-22-SSUDL-02.A	08/29/22
NEMO (TST6049)	ASTM D1970, D4798	4j-GAF-22-SSUDL-05.A	01/03/23
NEMO (TST6049)	ASTM D1970, D4798 (OK)	4j-GAF-SSUDL-001.A	01/05/24
NEMO (TST6049)	ASTM D226 (OK)	4j-GAF-SSUDL-001.B	01/05/24
NEMO (TST6049)	ASTM D6164 (GA)	4q-GAF-SSMBB-004.A	02/05/25
NEMO (TST6049)	ASTM D1970, D4798	4q-GAF-SSUDL-005.A	06/20/25
PRI (TST5878)	Wind Uplift	GAF-434-02-01	09/16/13
PRI (TST5878)	Wind Uplift	GAF-434-02-03	09/16/13
PRI (TST5878)	Wind Uplift	GAF-434-02-04	09/16/13
PRI (TST5878)	ASTM D1970 (AL)	MSA-047-02-01	04/11/18
PRI (TST5878)	ASTM D1970 (AR)	376T0032	10/22/19
PRI (TST5878)	ASTM D226 (S-CA)	376T0054	02/18/20
PRI (TST5878)	ASTM D226, Type II	376T0192	09/16/21
PRI (TST5878)	ASTM D8257	376T0162	09/17/21
PRI (TST5878)	ASTM D1970 (IN)	376T0342	12/05/22
PRI (TST5878)	ASTM D8257	376T0428	08/21/23
PRI (TST5878)	ASTM D8257	376T0429	08/21/23
PRI (TST5878)	ASTM D8257	376T0430	08/22/23
PRI (TST5878)	ASTM D8257	376T0431	08/23/23
PRI (TST5878)	ASTM D8257	376T0162, LTR	09/07/23
PRI (TST5878)	ASTM D8257	376T0428, LTR	09/07/23
PRI (TST5878)	ASTM D6164 (GA)	376T0483	02/26/24
PRI (TST5878)	ASTM D8257	376T0550	10/03/24
PRI (TST5878)	ASTM D8257	376T0596	01/15/25

ENTITY	EXAMINATION	REFERENCE	DATE
QAI (TST9898)	ASTM D8257	RJ8299P-14	03/29/22
QAI (TST9898)	ASTM D8257	RJ8557P-1	05/27/22
QAI (TST9898)	ASTM D8257	RJ8557P-2	05/27/22
UL, LLC (QUA9625)	Quality Control (various)	Service Confirmation	09/28/23
UL, LLC (QUA9625)	Quality Control (ML10)	Service Confirmation	03/10/25
UL, LLC (QUA9625)	Quality Control	Florida BCIS	Current

#### 4. PRODUCT DESCRIPTION:

TABLE 1: EVALUATED UNDERLAYMENTS		
PRODUCT	MATERIAL STANDARD	PLANT(S) <sup>1</sup>
Shingle-Mate® Roof Deck Protection	ASTM D226, Type II (Table 1)	MLI-10040 or MLI-10041
StormSafe™ Anchor Sheet	ASTM D226, Type II (Table 1)	ML4D
VersaShield® Fire-Resistant Roof Deck Protection	ASTM D226, Type II	ML9
Deck-Armor™ Premium Breathable Roof Deck Protection	ASTM D8257 <sup>2</sup>	MLI-10060
FeltBuster® Synthetic Roofing Felt	ASTM D8257 <sup>2</sup>	MLI-10060, ML4A/ML4B/ML4C, ML5, ML7A/ML7B/ML7C
QUIX™ Underlayment	ASTM D8257 <sup>2</sup>	ML5
Tiger Paw™ Premium Roof Deck Protection	ASTM D8257 <sup>2</sup>	MLI-10060, ML7C, ML10
LIBERTY™ SBS Self-Adhering Base/Ply Sheet	ASTM D1970	ML1A or ML1B
StormGuard® Film-Surfaced Leak Barrier	ASTM D1970 <sup>3</sup>	ML1A, ML1B or MLI-10061
WeatherWatch® Mineral-Surfaced Leak Barrier	ASTM D1970	ML1A, ML1B, ML1C, MD1D, MLI-10040 or MLI-10020
Ruberoid® Mop Granule	ASTM D6164, FRSA/TRI Manual and TAS 103 (partial)	ML1B
Ruberoid® Mop Granule FR		

#### 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 PEER, or previous versions thereof, is/was used for permitting or design guidance. PEERs are not to be construed as representing any attributes not specifically listed, nor are PEERs to be construed as an endorsement of the subject, or a recommendation for its use. There is no warranty by NEMO ETC, LLC or Robert Nieminen, P.E., express or implied, as to any finding or other matter in this PEER, or as to any product covered by the PEER.
- 5.2 This PEER is not for use in FBC High Velocity Hurricane Zone jurisdictions, as defined in FBC Chapter 2 (Broward and Miami-Dade Counties).
- 5.3 This PEER 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 PEER 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.

<sup>1</sup> Building officials, Designers of Record and other Authorities Having Jurisdiction may contact [info@nemoetc.com](mailto:info@nemoetc.com) to obtain manufacturing location information for products evaluated herein.

<sup>2</sup> Agreement between purchaser and seller, as set forth in Section 4.3, Note 1 of ASTM D8257-20, should be established as to slip resistance.

<sup>3</sup> Agreement between purchaser and seller, as set forth in Section 4.3, Note 1 of ASTM D1970-17, should be established as to slip resistance.

5.5 **GAF 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 PEER combined with supporting data for the prepared roof covering.

5.6 Allowable Roof Covers:

TABLE 2: ROOF COVER OPTIONS						
<a href="#">FBC NON-HVHZ:</a>	1507.2	1507.3		1507.4 & 1507.5	1507.7	1507.8 & 1507.9
UNDERLAYMENT	ASPHALT SHINGLES	CLAY AND CONCRETE TILE		METAL PANELS OR SHINGLES	SLATE OR SLATE-TYPE SHINGLES	WOOD SHINGLES OR SHAKES
		MECHANICAL ATTACH	ADHESIVE-SET			
Shingle-Mate® Roof Deck Protection	Yes	No	No	No	No	No
VersaShield® Fire-Resistant Roof Deck Protection	Yes	No	No	Yes	Yes	Yes
Deck-Armor™ Premium Breathable Roof Deck Protection	Yes	No	No	Yes	Yes	No
FeltBuster® Synthetic Roofing Felt	Yes	No	No	No	No	No
QUIX™ Underlayment	Yes	No	No	No	No	No
Tiger Paw™ Premium Roof Deck Protection	Yes	No	No	Yes	Yes	No
LIBERTY™ SBS Self-Adhering Base/Ply Sheet	Yes	No	No	No	No	Yes <sup>4</sup>
StormGuard® Film-Surfaced Leak Barrier	Yes	No	No	Yes	Yes	Yes <sup>4</sup>
WeatherWatch® Mineral-Surfaced Leak Barrier	Yes	No	No	No	No	Yes <sup>4</sup>
Ruberoid® Mop Granule	No	Yes Cap Sheet in 2-ply system	Yes Cap Sheet in 2-ply system, <a href="#">Table 2A</a>	No	No	No
Ruberoid® Mop Granule FR	No	Yes Cap Sheet in 2-ply system	Yes Cap Sheet in 2-ply system, <a href="#">Table 2A</a>	No	No	No

5.6.1 Adhesive-set is limited to use of following underlayment / tile-adhesive combinations.

TABLE 2A: ALLOWABLE UNDERLAYMENT / TILE-ADHESIVE COMBINATIONS <sup>5</sup>					
UNDERLAYMENT	TILE-ADHESIVE OPTIONS AND <a href="#">FLORIDA PRODUCT APPROVAL</a>				
	DAP GLOBAL		DUPONT	ICP CONSTRUCTION	
	STORMBOND	STORMBOND 2	TILE BOND	APOC POLYSET AH-160	APOC POLYSET RTA-1
	FL14506	FL14506	FL22525	FL6332	FL6276
Ruberoid® Mop Granule	Yes	Yes	Yes	Yes	Yes
Ruberoid® Mop Granule FR	Yes	Yes	Yes	Yes	Yes

<sup>4</sup> Used as min. 3 ¾-inch wide joint-strips per FBC 1507.1.1.1(2) / FBC R905.1.1.1(2) or installed in full-coverage atop ASTM D226, Type II felt, ASTM D4869 Type III or IV felt mechanically attached in accordance with FBC Table 1507.1.1.1 or FBC Residential Table R905.1.1.1.

<sup>5</sup> Refer to Tile Manufacturer's or Adhesive Manufacturer's Florida Product Approval for Overturning Moment Resistance Performance.

## 5.7 Allowable Substrates:

TABLE 3: SUBSTRATE OPTIONS FOR ADHERED UNDERLAYMENTS				
UNDERLAYMENT	APPLICATION	SUBSTRATES (DESIGNED TO MEET CODE)		
		TYPE	PRIMER	SUBSTRATES
LIBERTY™ SBS Self-Adhering Base/Ply Sheet, StormGuard® Film-Surfaced Leak Barrier or Weather Watch® Mineral-Surfaced Leak Barrier	self-adhering	Deck/sheathing:	(Optional) ASTM D41	plywood
		Base Sheet:	None	ASTM D226 felt, Type II
		Flashing/valley:	ASTM D41	metal
Ruberoid® Mop Granule or Ruberoid® Mop Granule FR	hot asphalt	Deck:	ASTM D41	structural concrete
		Base Sheet:	None	ASTM D226, Type II felt, GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth

## 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 Wind Resistance for Underlayment Systems in Tile Roof Applications:

The following wind uplift limitations apply to tile underlayment systems. The Maximum Design Pressure ('MDP') 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).

#### 5.8.2.1 Direct-to-Deck:

The maximum design pressure for the selected assembly shall meet or exceed that required under **FRSA/TRI Manual 7th Edition**, Appendix A or the critical (highest) design pressure determined in accordance with **FBC 1609** or **FBC Residential Chapter 3**.

TABLE 4A: ALLOWABLE DESIGN PRESSURES, ADHERED, DIRECT-TO-DECK UNDERLAYMENT SYSTEMS				
SYSTEM No.	DECK	BASE PLY	CAP PLY	MDP (PSF)
UDL-1.	Min. 2,500 psi structural concrete	GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Ply 4, Tri-Ply Ply 4 or GAFGLAS Flex Ply 6 applied in full mopping of ASTM D312, Type IV hot asphalt at 20 to 25 lbs/square	Ruberoid® Mop Granule or Ruberoid® Mop Granule FR applied in full mopping of ASTM D312, Type IV hot asphalt at 20 to 25 lbs/square, and back-nailed in accordance with GAF installation instructions, max. 12-inch o.c.	-442.5

#### 5.8.2.2 Mechanically-Attached Base Sheet:

The maximum design pressure for the selected assembly shall meet or exceed that required under **FRSA/TRI Manual 7th Edition**, Appendix A 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 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 or [Roofing Application Standard](#) RAS 117 or 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 for enhancements.



<b>TABLE 4B: ALLOWABLE DESIGN PRESSURES, MECHANICALLY ATTACHED, MULTI-PLY UNDERLAYMENT SYSTEMS</b>				
<b>SYSTEM No.</b>	<b>DECK</b>	<b>BASE SHEET</b>	<b>CAP PLY</b>	<b>MDP (PSF)</b>
<b>**Nails shall be corrosion resistant and be of sufficient length to penetrate through the sheathing by min. 3/16-inch.</b>				
UDL-2.	<b>Plywood</b> , APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category	GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth mechanically attached with min. 12 ga. annular ring shank roofing nails** through 32 ga., 1-5/8-inch diameter tin caps spaced 9-inch o.c. at the min. 4-inch wide side laps and 9-inch o.c. at two (2), equally spaced, staggered center rows in the field of the sheet	Ruberoid® Mop Granule or Ruberoid® Mop Granule FR applied in full mopping of ASTM D312, Type IV hot asphalt at 20 to 25 lbs/square, and back-nailed in accordance with GAF installation instructions, max. 12-inch o.c.	-45.0
UDL-3.	<b>Plywood</b> , APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category	GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth mechanically attached with min. 12 ga. annular ring shank roofing nails** through 32 ga., 1-5/8-inch diameter tin caps spaced 8-inch o.c. at the min. 4-inch wide side laps and 8-inch o.c. at three (3), equally spaced, staggered center rows in the field of the sheet	Ruberoid® Mop Granule or Ruberoid® Mop Granule FR applied in full mopping of ASTM D312, Type IV hot asphalt at 20 to 25 lbs/square, and back-nailed in accordance with GAF installation instructions, max. 12-inch o.c.	-75.0
UDL-4.	<b>Plywood</b> , APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category	GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth mechanically attached with min. 11 ga. annular ring shank roofing nails** through 32 ga., 1-5/8-inch diameter tin caps spaced 4-inch o.c. at the min. 2-inch wide side laps and 4-inch o.c. at four (4), equally spaced center rows in the field of the sheet	Ruberoid® Mop Granule or Ruberoid® Mop Granule FR applied in full mopping of ASTM D312, Type IV hot asphalt at 20 to 25 lbs/square, and back-nailed in accordance with GAF installation instructions, max. 12-inch o.c.	-97.5

#### 5.9 Exposure Limitations:

<b>TABLE 5: EXPOSURE LIMITATIONS</b>		
<b>UNDERLAYMENT</b>	<b>PREPARED ROOF COVER INSTALLATION TYPE</b>	<b>MAXIMUM EXPOSURE (DAYS)</b>
Shingle-Mate® Roof Deck Protection, StormSafe™ Anchor Sheet, VersaShield® Fire-Resistant Roof Deck Protection and LIBERTY™ SBS Self-Adhering Base/Ply Sheet	Mechanically attached	30
QUIX™ Underlayment, WeatherWatch® Mineral-Surfaced Leak Barrier	Mechanically attached	60
Deck-Armor™ Premium Breathable Roof Deck Protection, FeltBuster® Synthetic Roofing Felt, Tiger Paw™ Premium Roof Deck Protection or StormGuard® Film-Surfaced Leak Barrier	Mechanically attached	90
Ruberoid® Mop Granule and Ruberoid® Mop Granule FR	Adhesive-set tile roof system	180
	Mechanically attached	UNLIMITED

#### 5.10 Tile Slippage Limitations:

When loading roof tiles on the underlayment, the maximum roof pitch shall be as follows. These pitch limitations can only be exceeded by using battens or loading boards during loading of the roof tiles.

<b>TABLE 6: TILE SLIPPAGE LIMITATIONS FOR DIRECT-DECK TILE INSTALLATIONS</b>			
<b>UNDERLAYMENT</b>	<b>TILE PROFILE</b>	<b>STAGING METHOD</b>	<b>MAXIMUM STAGING PITCH</b>
Ruberoid® Mop Granule	Flat	Max. 10-tile stack	4:12
	Lugged	battens or loading-boards required	N/A
Ruberoid® Mop Granule FR	Flat or Lugged	battens or loading-boards required	N/A

- 5.11 All components in the roof assembly shall have quality assurance audit in accordance with **F.A.C. Rule 61G20-3**. Refer to the Product Approval of the component manufacturer for components mentioned herein that are produced by a Product Manufacturer other than the report holder on [Page 1](#) of this PEER.



## 6. INSTALLATION:

6.1 **GAF Roof Underlayments** shall be installed in accordance with **GAF** published installation instructions subject to the [Limitations of Use](#) set forth herein and the specifics noted below.

6.1.1 Consult GAF requirements for back-nailing at pitch of 2:12 or greater.

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 Refer to [Section 6.4](#) for underlayments having prescriptive codified minimum attachment or Tables [4A](#) and [4B](#) for underlayment systems having maximum design pressures established in accordance with FBC 1504.2.1.4.

### 6.4 Underlayment Assemblies with Prescriptive Minimum Attachment for use in NON-TILE applications:

6.4.1 **CODE REFERENCE:** 1507.1.1.1 or R905.1.1.1, Option 1: Underlayment adhered to deck

DECK DESCRIPTION: Code-minimum wood deck to the satisfaction of the Authority Having Jurisdiction (refer to [Table 3](#) for specific underlayment/substrate combinations)

UNDERLAYMENT: **LIBERTY™ SBS Self-Adhering Base/Ply Sheet, StormGuard® Film-Surfaced Leak Barrier or WeatherWatch® Mineral-Surfaced Leak Barrier** self-adhered in accordance with FBC Section 1507.1.1.1(1) or R905.1.1.1(1) and back-nailed in accordance with the manufacturer's requirements.

SURFACING: FBC Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles, subject to the allowable roof covers in [Table 2](#) herein.

6.4.2 **CODE REFERENCE:** 1507.1.1.1 or R905.1.1.1, Option 2: Self-adhering strips to deck-joints followed by underlayment mechanically attached to deck

DECK DESCRIPTION: Code-minimum wood deck to the satisfaction of the Authority Having Jurisdiction

SECONDARY WATER BARRIER: Min. 3 ¼-inch wide strips of **LIBERTY™ SBS Self-Adhering Base/Ply Sheet, StormGuard® Film-Surfaced Leak Barrier, WeatherWatch® Mineral-Surfaced Leak Barrier** or FBC Approved polymer-modified bitumen complying with ASTM D1970 or FBC Approved flexible flashing tape complying with AAMA 711, Level 3 self-adhered over joints of the roof deck prior to installation of subsequent layer(s) in accordance with FBC Section 1507.1.1.1(2) or R905.1.1.1(2). Do not overlap end-joints or T-joints. All end-joints and T-joints shall be butted firmly side by side, flush with each other but not overlapped.

UNDERLAYMENT: **Shingle-Mate® Roof Deck Protection or VersaShield® Fire-Resistant Roof Deck Protection** in accordance with FBC Table 1507.1.1.1 or Table R905.1.1.1, with a minimum 4-inch side lap and 6-inch end lap, mechanically fastened to deck

FASTENERS: Min. 0.083-inch diameter annular ring or deformed shank nails with metal or plastic caps\* with a nominal cap diameter of not less than 1-inch and minimum thickness as follows. The nail shall be of sufficient length to penetrate through the roof sheathing, or not less than 0.75-inch into the roof sheathing.

\*Note: Metal caps are required where the ultimate design wind speed,  $V_{ult}$ , equals or exceeds 170 mph.

Cap Type	Minimum thickness
Metal cap	32 ga. sheet metal
Power-driven metal cap	0.010-inch
Plastic cap	0.035-inch (outside edge thickness)

FASTENING: Grid pattern of 12-inches between the overlaps and 6-inch spacing at the overlaps, in accordance with FBC Table 1507.1.1.1 or Table R905.1.1.1

SURFACING: FBC Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles, wood shakes or wood shingles, subject to the allowable roof covers in [Table 2](#) herein.

**6.4.3**      **CODE REFERENCE:**    **1507.1.1.1 or R905.1.1.1, Option 2:** Self-adhering strips to deck-joints followed by underlayment mechanically attached to deck

DECK DESCRIPTION:	Code-minimum wood deck to the satisfaction of the Authority Having Jurisdiction								
SECONDARY WATER BARRIER:	Min. 3 ¼-inch wide strips of <b>LIBERTY™ SBS Self-Adhering Base/Ply Sheet, StormGuard® Film-Surfaced Leak Barrier, WeatherWatch® Mineral-Surfaced Leak Barrier</b> or FBC Approved polymer-modified bitumen complying with ASTM D1970 or FBC Approved flexible flashing tape complying with AAMA 711, Level 3 self-adhered over joints of the roof deck prior to installation of subsequent layer(s) in accordance with FBC Section 1507.1.1.1(2) or R905.1.1.1(2). Do not overlap end-joints or T-joints. All end-joints and T-joints shall be butted firmly side by side, flush with each other but not overlapped.								
UNDERLAYMENT:	<b>Deck-Armor™ Premium Breathable Roof Deck Protection, FeltBuster® Synthetic Roofing Felt, QUIX™ Underlayment or Tiger Paw™ Premium Roof Deck Protection</b> in accordance with FBC Table 1507.1.1.1 or Table R905.1.1.1, with a minimum 4-inch side lap and 6-inch end lap, mechanically fastened to deck								
FASTENERS:	Min. 0.083-inch diameter annular ring or deformed shank nails with metal or plastic caps* with a nominal cap diameter of not less than 1-inch and minimum thickness as follows. The nail shall be of sufficient length to penetrate through the roof sheathing, or not less than 0.75-inch into the roof sheathing. *Note: Metal caps are required where the ultimate design wind speed, $V_{ult}$ , equals or exceeds 170 mph. <table> <thead> <tr> <th><u>Cap Type</u></th><th><u>Minimum thickness</u></th></tr> </thead> <tbody> <tr> <td>Metal cap</td><td>32 ga. sheet metal (<i>not for use with QUIX™ Underlayment</i>)</td></tr> <tr> <td>Power-driven metal cap</td><td>0.010-inch (<i>not for use with QUIX™ Underlayment</i>)</td></tr> <tr> <td>Plastic cap</td><td>0.035-inch (outside edge thickness)</td></tr> </tbody> </table>	<u>Cap Type</u>	<u>Minimum thickness</u>	Metal cap	32 ga. sheet metal ( <i>not for use with QUIX™ Underlayment</i> )	Power-driven metal cap	0.010-inch ( <i>not for use with QUIX™ Underlayment</i> )	Plastic cap	0.035-inch (outside edge thickness)
<u>Cap Type</u>	<u>Minimum thickness</u>								
Metal cap	32 ga. sheet metal ( <i>not for use with QUIX™ Underlayment</i> )								
Power-driven metal cap	0.010-inch ( <i>not for use with QUIX™ Underlayment</i> )								
Plastic cap	0.035-inch (outside edge thickness)								
FASTENING:	Grid pattern of 12-inches between the overlaps and 6-inch spacing at the overlaps, in accordance with FBC Table 1507.1.1.1 or Table R905.1.1.1								
SURFACING:	FBC Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles, subject to the allowable roof covers in <a href="#">Table 2 herein</a> .								

**6.4.4**      **CODE REFERENCE:**    **1507.1.1.1 or R905.1.1.1, Option 3:** Two-layer underlayment mechanically fastened to deck

DECK DESCRIPTION:	Code-minimum wood deck to the satisfaction of the Authority Having Jurisdiction						
UNDERLAYMENT:	Two (2) layers of <b>Shingle-Mate® Roof Deck Protection or VersaShield® Fire-Resistant Roof Deck Protection</b> in accordance with FBC Section 1507.1.1.1(3) or R905.1.1.1(3).						
FASTENERS:	Min. 0.083-inch diameter annular ring or deformed shank nails with metal or plastic caps* with a nominal cap diameter of not less than 1-inch and minimum thickness as follows. The nail shall be of sufficient length to penetrate through the roof sheathing, or not less than 0.75-inch into the roof sheathing. *Note: Metal caps are required where the ultimate design wind speed, $V_{ult}$ , equals or exceeds 170 mph. <table> <thead> <tr> <th><u>Cap Type</u></th><th><u>Minimum thickness</u></th></tr> </thead> <tbody> <tr> <td>Metal cap</td><td>32 ga. sheet metal</td></tr> <tr> <td>Plastic cap</td><td>0.035-inch (outside edge thickness)</td></tr> </tbody> </table>	<u>Cap Type</u>	<u>Minimum thickness</u>	Metal cap	32 ga. sheet metal	Plastic cap	0.035-inch (outside edge thickness)
<u>Cap Type</u>	<u>Minimum thickness</u>						
Metal cap	32 ga. sheet metal						
Plastic cap	0.035-inch (outside edge thickness)						
FASTENING:	Grid pattern of 12-inches between the overlaps and 6-inch spacing at the overlaps, in accordance with FBC Section 1507.1.1.1(3) or R905.1.1.1(3).						
SURFACING:	FBC Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles, wood shakes or wood shingles, subject to the allowable roof covers in <a href="#">Table 2 herein</a> .						

6.4.5	<b>CODE REFERENCE:</b> <b>1507.1.1.1 or R905.1.1.1, Option 3:</b> Two-layer underlayment mechanically fastened to deck								
DECK DESCRIPTION:	Code-minimum wood deck to the satisfaction of the Authority Having Jurisdiction								
UNDERLAYMENT:	Two (2) layers of <b>Deck-Armor™ Premium Breathable Roof Deck Protection, FeltBuster® Synthetic Roofing Felt, QUIX™ Underlayment or Tiger Paw™ Premium Roof Deck Protection</b> in accordance with FBC Section 1507.1.1.1(3) or R905.1.1.1(3).								
FASTENERS:	Min. 0.083-inch diameter annular ring or deformed shank nails with metal or plastic caps* with a nominal cap diameter of not less than 1-inch and minimum thickness as follows. The nail shall be of sufficient length to penetrate through the roof sheathing, or not less than 0.75-inch into the roof sheathing. *Note: Metal caps are required where the ultimate design wind speed, $V_{ult}$ , equals or exceeds 170 mph. <table> <tr> <th><u>Cap Type</u></th><th><u>Minimum thickness</u></th></tr> <tr> <td>Metal cap</td><td>32 ga. sheet metal (<i>not for use with QUIX™ Underlayment</i>)</td></tr> <tr> <td>Plastic cap</td><td>0.035-inch (outside edge thickness)</td></tr> </table>	<u>Cap Type</u>	<u>Minimum thickness</u>	Metal cap	32 ga. sheet metal ( <i>not for use with QUIX™ Underlayment</i> )	Plastic cap	0.035-inch (outside edge thickness)		
<u>Cap Type</u>	<u>Minimum thickness</u>								
Metal cap	32 ga. sheet metal ( <i>not for use with QUIX™ Underlayment</i> )								
Plastic cap	0.035-inch (outside edge thickness)								
FASTENING:	Grid pattern of 12-inches between the overlaps and 6-inch spacing at the overlaps, in accordance with FBC Section 1507.1.1.1(3) or R905.1.1.1(3).								
SURFACING:	FBC Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles, subject to the allowable roof covers in <a href="#">Table 2 herein</a> .								
6.4.6	<b>CODE REFERENCE:</b> <b>1507.1.1.1 or R905.1.1.1, Option 1 combined with Option 2 or 3:</b> Optional self-adhering strips to deck-joints followed by base sheet mechanically fastened to deck followed by underlayment adhered to base sheet								
DECK DESCRIPTION:	Code-minimum wood deck to the satisfaction of the Authority Having Jurisdiction								
SECONDARY WATER BARRIER:	(Optional) Min. 3 ¾-inch wide strips of <b>LIBERTY™ SBS Self-Adhering Base/Ply Sheet, StormGuard® Film-Surfaced Leak Barrier, WeatherWatch® Mineral-Surfaced Leak Barrier</b> or FBC Approved polymer-modified bitumen complying with ASTM D1970 or FBC Approved flexible flashing tape complying with AAMA 711, Level 3 self-adhered over joints of the roof deck prior to installation of subsequent layer(s) in accordance with FBC Section 1507.1.1.1(2) or R905.1.1.1(2). Do not overlap end-joints or T-joints. All end-joints and T-joints shall be butted firmly side by side, flush with each other but not overlapped.								
BASE SHEET:	One (1) layer of <b>Shingle-Mate® Roof Deck Protection, StormSafe™ Anchor Sheet or VersaShield® Fire-Resistant Roof Deck Protection</b> or FBC Approved ASTM D226, Type II felt, in accordance with FBC Table 1507.1.1.1 or Table R905.1.1.1, with a minimum 4-inch side lap and 6-inch end lap or two (2) layers of <b>Shingle-Mate® Roof Deck Protection, StormSafe™ Anchor Sheet or VersaShield® Fire-Resistant Roof Deck Protection</b> or FBC Approved ASTM D226, Type II felt in accordance with FBC Section 1507.1.1.1(3) or R905.1.1.1(3), mechanically fastened to deck								
FASTENERS:	Min. 0.083-inch diameter annular ring or deformed shank nails with metal or plastic caps* with a nominal cap diameter of not less than 1-inch and minimum thickness as follows. The nail shall be of sufficient length to penetrate through the roof sheathing, or not less than 0.75-inch into the roof sheathing. *Note: Metal caps are required where the ultimate design wind speed, $V_{ult}$ , equals or exceeds 170 mph. <table> <tr> <th><u>Cap Type</u></th><th><u>Minimum thickness</u></th></tr> <tr> <td>Metal cap</td><td>32 ga. sheet metal</td></tr> <tr> <td>Power-driven metal cap</td><td>0.010-inch</td></tr> <tr> <td>Plastic cap</td><td>0.035-inch (outside edge thickness)</td></tr> </table>	<u>Cap Type</u>	<u>Minimum thickness</u>	Metal cap	32 ga. sheet metal	Power-driven metal cap	0.010-inch	Plastic cap	0.035-inch (outside edge thickness)
<u>Cap Type</u>	<u>Minimum thickness</u>								
Metal cap	32 ga. sheet metal								
Power-driven metal cap	0.010-inch								
Plastic cap	0.035-inch (outside edge thickness)								
FASTENING:	Grid pattern of 12-inches between the overlaps and 6-inch spacing at the overlaps, in accordance with FBC Table 1507.1.1.1 or Table R905.1.1.1 or FBC Section 1507.1.1.1(3) or R905.1.1.1(3).								
UNDERLAYMENT:	<b>LIBERTY™ SBS Self-Adhering Base/Ply Sheet, StormGuard® Film-Surfaced Leak Barrier or WeatherWatch® Mineral-Surfaced Leak Barrier</b> self-adhered in accordance with FBC Section 1507.1.1.1(1) or R905.1.1.1(1) and back-nailed in accordance with the manufacturer's requirements.								
SURFACING:	FBC Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles, subject to the allowable roof covers in <a href="#">Table 2 herein</a> .								

**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](#): (360) 817-5512; [bsai.inspections@ul.com](mailto:bsai.inspections@ul.com)

- END OF PEER -