



NEMO|etc.

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ENGINEER

EVALUATE

TEST

CONSULT

P.E. EVALUATION REPORT (PEER)

HOLCIM SOLUTIONS AND PRODUCTS US, LLC (GACO)

1245 Chapman Drive
Waukesha, WI 53186
(800) 331-0196

PEER-HSP-010.A.R3

FL14723-R12 (NON-HVHZ)

Date of Issuance: 04/09/2021

Revision 3: 10/13/2023

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 use of the product under the Florida Building Code. The product described herein has been evaluated for compliance with the intent of the **8th Edition (2023) Florida Building Code** [sections noted herein](#).

DESCRIPTION: GacoRoofFoam (NON-HVHZ)

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

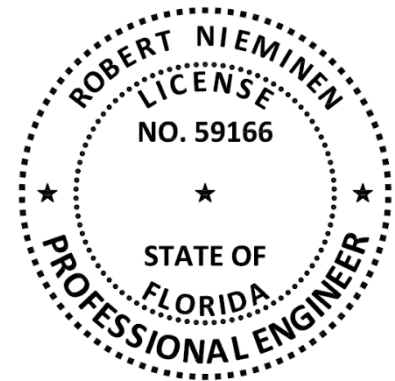
CONTINUED COMPLIANCE: This PEER is valid until such time as the named product(s) changes, the referenced Quality Assurance or production facility location(s) changes, or Code provisions that relate to the product(s) change. Acceptance of our PEERs by the named client constitutes agreement to notify NEMO 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: The Florida Product Approval Number (FL#) preceded by the words "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 5, plus a 11-page Appendix.

Prepared by:



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.

ROOFING SYSTEMS EVALUATION:
1. SCOPE:

Product Category: Roofing
Sub-Category: Spray Applied Polyurethane Roof System
Product Approval Method: Method 1, Option D – Codified Material, Evaluation by Engineer
Compliance Statement: GacoRoofFoam, as produced by **HOLCIM SOLUTIONS AND PRODUCTS US, LLC (GACO)** have demonstrated compliance with the following sections of the **8th Edition (2023) Florida Building Code** through testing in accordance with the Standards referenced herein. 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
1504.6	Physical properties	ASTM G154
1504.7	Impact resistance	FM 4470
1507.10.2	Material standard	ASTM D4601
1507.11.2	Material standard	ASTM D6163
1507.14.2	Material standard	ASTM C1029
1507.14.3	Material standard	ASTM D6083
1507.14.3	Material standard	ASTM D6694
1523.6.2.1.1	Wind driven rain	TTC-555B
2603.3	Flame Spread-Index	ASTM E84 ¹

3. REFERENCES:

ENTITY	EXAMINATION	REFERENCE	DATE
ITS (TST1585)	ASTM E84	101157815SAT-018D	07/29/14
ITS (TST1585)	ASTM E84	101157815SAT-018E	07/29/14
ITS (TST6781)	ASTM C1029	101157815MID-001	11/04/14
ITS (TST6781)	ASTM C1029	102206114MID-001	06/22/15
ITS (TST6781)	ASTM C1029	102210761MID-001	06/22/15
ITS (TST6781)	ASTM C518	104625326MID-008A	11/12/21
ITS (TST6781)	ASTM C518	104625326MID-008B	11/12/21
NEMO (TST6049)	ASTM D6083, TTC-555B	4p-FBP-20-SSLAP-01.A	05/06/21
NEMO (TST6049)	ASTM C1029	4p-FBP-21-SSLAP-01.C	02/25/22
PRI (TST5878)	ASTM D6163	FBP-076-02-01	10/23/12
PRI (TST5878)	ASTM D6694, TTC-555B	GWI-026-02-01	12/11/15
PRI (TST5878)	ASTM D4601	FBP-293-02-01	04/27/16
PRI (TST5878)	ASTM D6083, TTC-555B	GWI-045-02-01	07/21/17
PRI (TST5878)	ASTM D6694, TTC-555B	GWI-042-02-01	01/09/18
PRI (TST5878)	ASTM D6694, TTC-555B	GWI-044-02-01	01/09/18
PRI (TST5878)	ASTM D6694, TTC-555B	GWI-043-02-01	01/09/18
PRI (TST5878)	ASTM D2126, TAS 110	GWI-052-02-01	08/16/18
PRI (TST5878)	ASTM D6694	GWI-071-02-01	09/12/19
PRI (TST5878)	ASTM D6083	348T0053	09/10/20
PRI (TST5878)	ASTM D6163	348T0093	02/15/21
FM Approvals (TST1867)	FM 4470	2D0A0.AM	12/23/98
FM Approvals (TST1867)	FM 4470	3023644	02/02/07
FM Approvals (TST1867)	FM 4470	3052963	10/21/14
NEMO (TST6049)	Criticality	4i-FBP-21-SSCRT-01.A	12/28/21
NEMO (TST6049)	FM 4474 / TAS 114	4a-FBP-21-LSWUS-01.A	03/22/21
PRI (TST5878)	FM 4474 / TAS 114	FBP-067-02-01	07/23/12

¹ Numerical ratings as determined by ASTM E84 are not intended to reflect hazards presented by these materials under actual fire conditions.

ENTITY	EXAMINATION	REFERENCE	DATE
PRI (TST5878)	FM 4474 / TAS 114	FBP-104-02-01	04/17/13
PRI (TST5878)	FM 4474 / TAS 114	FBP-112-02-01	04/19/13
PRI (TST5878)	FM 4474 / TAS 114	FBP-141-02-01	12/18/13
PRI (TST5878)	FM 4474 / TAS 114	FBP-177-02-01	07/15/14
PRI (TST5878)	Criticality	FBP-059-02-01	03/15/18
PRI (TST5878)	FM 4474 / TAS 114	GW-057-02-01	08/15/18
PRI (TST5878)	FM 4474 / TAS 114	GW-057-02-02	08/15/18
PRI (TST5878)	FM 4474 / TAS 114	GW-060-02-01	10/25/18
PRI (TST5878)	FM 4474 / TAS 114	GW-060-02-02	10/26/18
PRI (TST5878)	FM 4474 / TAS 114	GW-060-02-01	11/15/18
PRI (TST5878)	FM 4474 / TAS 114	GW-060-02-03	12/07/18
PRI (TST5878)	FM 4474 / TAS 114	GW-060-02-04	12/07/18
PRI (TST5878)	FM 4474 / TAS 114	GW-067-02-02	12/07/18
PRI (TST5878)	FM 4474 / TAS 114	GW-076-02-01	04/03/19
PRI (TST5878)	FM 4474 / TAS 114	GW-075-02-01	05/09/19
PRI (TST5878)	FM 4474 / TAS 114	GW-075-02-02	05/09/19
PRI (TST5878)	FM 4474 / TAS 114	348T0059	06/05/20
PRI (TST5878)	FM 4474 / TAS 114	348T0081	09/25/20
PRI (TST5878)	Criticality	348T0083	09/25/20
PRI (TST5878)	Criticality	348T0082A	09/28/20
PRI (TST5878)	FM 4474 / TAS 114	348T0082B	09/28/20
PRI (TST5878)	FM 4474 / TAS 114	348T0105	01/22/21
PRI (TST5878)	FM 4474	348T0106	01/25/21
UL, LLC (QUA 9625)	Quality Control	Service Confirmation	10/21/2022
UL, LLC (QUA9625)	Quality Control	Florida BCIS	Current

4. PRODUCT DESCRIPTION:

This PEER covers **GacoRoofFoam** installed in accordance with **HOLCIM SOLUTIONS AND PRODUCTS US, LLC (GACO)** published installation instructions and the Limitations / Conditions of Use herein.

TABLE 1: EVALUATED COMPONENTS

TYPE	PRODUCT	MATERIAL STANDARD	PLANT(S)
Base Sheet:	MB Base	ASTM D4601	AL
	SBS Base	ASTM D6163	IN
	SBS Premium Base	ASTM D6163	IN
Insulation	GacoRoofFoam 2733	ASTM C1029, Type III	WI
	GacoRoofFoam Low GWP F2780	ASTM C1029, Type III	WI
Surfacing	GacoFlex A-31	ASTM D6083	WI
	GacoFlex A-47	ASTM D6083	WI
	GacoFlex U-91	ASTM D6083	WI
	GacoFlex S-10	ASTM D6694	WI
	GacoFlex S-20	ASTM D6694	WI
	GacoFlex S-21	ASTM D6694	WI
	GacoFlex S-42	ASTM D6694	WI
	GacoRoof GR-16	ASTM D6694	WI

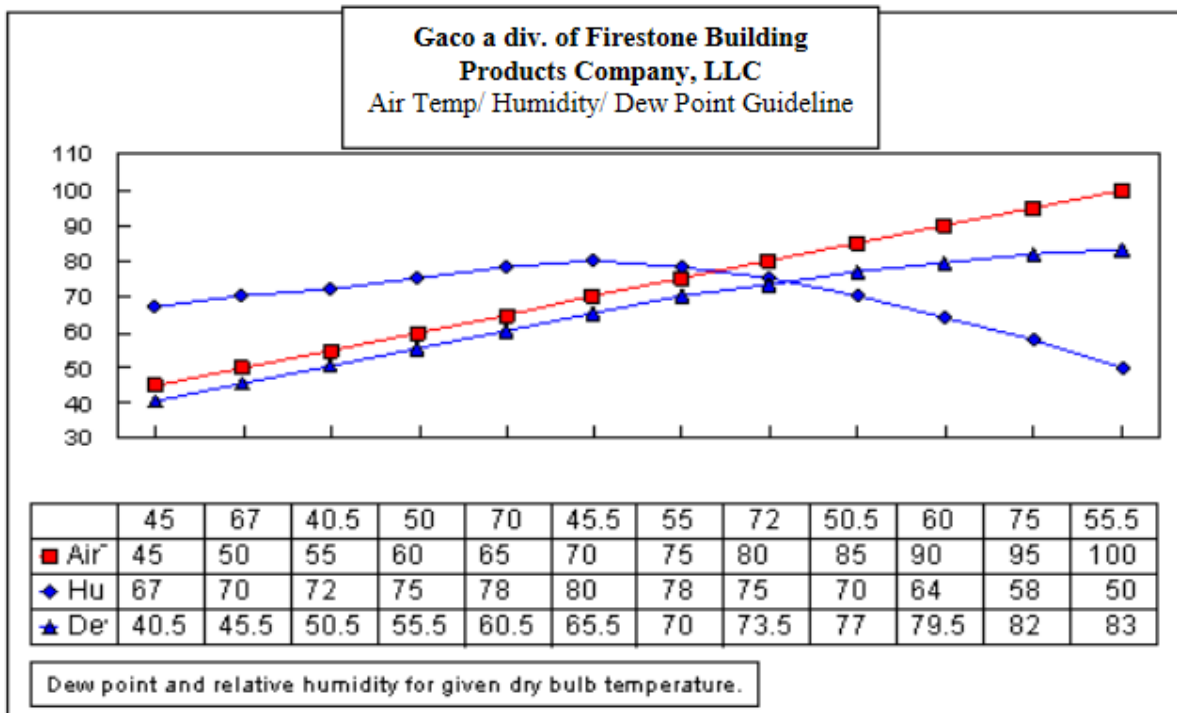
5. LIMITATIONS:

- 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.
- 5.5 This PEER does not include evaluation of roof edge termination. Refer to **FBC 1504.5** for requirements and limitations regarding edge securement for low-slope roofs.
- 5.6 Refer to **FBC 1511** for requirements and limitations regarding recover installations.
- 5.6.1 For mechanically attached components over existing roof decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing shall be in accordance with [ANSI/SPRI FX-1](#) or [Testing Application Standard TAS 105](#).
- 5.6.2 For bonded insulation or membrane over existing substrates in a re-roof (tear off) or recover installation, the existing deck or existing roof surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance with [ANSI/SPRI IA-1](#), [ASTM E907](#), [FM Loss Prevention Data Sheet 1-52](#) or [Testing Application Standard TAS 124](#) shall be conducted on mock-ups of the proposed new roof assembly.
- 5.6.3 For bonded insulation or membrane over existing substrates in a recover installation, the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the Authority Having Jurisdiction, as documented through field uplift testing in accordance with [ASTM E907](#), [FM Loss Prevention Data Sheet 1-52](#) or [Testing Application Standard TAS 124](#).
- 5.7 Refer to Appendix 1 for system attachment requirements for wind load resistance.
- 5.7.1 “MDP” = 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 **FBC 1609** for determination of design wind loads.
- 5.7.2 For mechanically attached components or partially-bonded insulation, the maximum design pressure for the selected assembly shall meet or exceed at least the Zone 1 PRIME design pressure determined in accordance with **FBC Chapter 16**. Elevated pressure zones shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are [ANSI/SPRI WD1](#), [FM Loss Prevention Data Sheet 1-29](#), [Roofing Application Standard RAS 117](#) 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 Zone 2/3 enhancements.
- 5.7.3 For assemblies with all components fully bonded in place, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with **FBC Chapter 16**. No rational analysis is permitted for these systems.

5.8 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 listed in Appendix 1 that are produced by a Product Manufacturer other than the report holder on [Page 1](#) of this PEER.

6. INSTALLATION:

- 6.1 **GacoRoofFoam** shall be installed in accordance with **HOLCIM SOLUTIONS AND PRODUCTS US, LLC (GACO)** published installation instructions, subject to the [Limitations of Use](#) noted herein and **FBC Section 1507.14**.
- 6.2 Spray polyurethane foam shall not be applied when ambient temperature is within 5 degrees of the dew point. Ambient humidity application limits are as listed in Table 1 below.



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

- THE 11-PAGES THAT FOLLOW FORM PART OF THIS PEER -

APPENDIX 1: ATTACHMENT REQUIREMENTS FOR WIND UPLIFT RESISTANCE

TABLE	DECK	APPLICATION	TYPE	DESCRIPTION	PAGE
1A	Wood	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	3
1B	Wood	New, Reroof (Tear-Off), Recover	C-1	Mechanically Attached Insulation, Bonded Roof Cover	4
1C	Wood	New, Reroof (Tear-Off), Recover	D-2	Insulated, Mechanically Attached Base Sheet, Bonded Roof Cover	4
1D	Wood	New, Reroof (Tear-Off) or Recover	E-2	Non-Insulated, Mechanically Attached Base Sheet, Bonded Roof Cover	5
2A	Steel	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	6
2B	Steel or structural concrete	New, Reroof (Tear-Off), Recover	C-1	Mechanically Attached Insulation, Bonded Roof Cover	7
2C	Steel or structural concrete	New, Reroof (Tear-Off), Recover	D-2	Insulated, Mechanically Attached Base Sheet, Bonded Roof Cover	7
3A	Structural concrete	New, Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	8
4A	Deck with Lightweight concrete	New or Reroof (Tear-Off)	A-1	LWC to Steel Deck, Bonded Insulation, Bonded Roof Cover	8
4B	Deck with Lightweight concrete	New or Reroof (Tear-Off)	A-1	LWC to Concrete Deck, Bonded Insulation, Bonded Roof Cover	8
4C	Deck with Lightweight concrete	New, Reroof (Tear-Off), Recover	C-1	Mechanically Attached Insulation, Bonded Roof Cover	9
4D	Deck with Lightweight concrete	New, Reroof (Tear-Off)	E-2	Non-Insulated, Mechanically Attached Base Sheet, Bonded Roof Cover	9
5A	Cementitious wood fiber	Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	10
6A	Gypsum	Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	10
7A	Various	Recover	A-1	Bonded Insulation, Bonded Roof Cover	11

The following notes apply to the systems outlined herein:

- The roof system evaluation herein 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.
- Unless otherwise noted, fasteners and stress plates shall be as follows. Fasteners shall be of sufficient length for the following engagements:

FASTENER/PLATE OPTIONS			
DECK TYPE	BY	PARTS	MINIMUM ENGAGEMENT
Wood	Holcim	Elevate All-Purpose or Heavy-Duty Fastener with Elevate Insulation Fastening Plate	Minimum ¾-inch plywood penetration or minimum 1-inch wood plank embedment
Steel	Holcim	Elevate All-Purpose or Heavy-Duty Fastener with Elevate Insulation Fastening Plate	Minimum ¾-inch steel penetration and engage the top flute of the steel deck
Structural Concrete	Holcim	Elevate Heavy-Duty or Concrete Drive Fastener with Elevate Insulation Fastening Plate	Minimum 1-inch embedment. Fastener installed with a pilot hole in accordance with the fastener manufacturer's published installation instructions

- Unless otherwise noted, insulation may be any one layer or combination of FBC Approved (Local or Statewide) board(s) that meet FBC 1505 and, for foam plastic, FBC Chapter 26, when installed with the roof cover.
- Minimum 200 psi, minimum 2-inch thick FBC Approved lightweight insulating concrete may be substituted for rigid insulation board for System Types B-1, C-1, C-2, D-1 or D-2, whereby fasteners are installed through the lightweight insulating concrete to engage the structural deck. The structural deck shall be of equal or greater type, thickness and strength to the steel and structural concrete deck listings. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction. This is a wind uplift resistance allowance and does not purport to address non-wind-uplift-related issues, such as deck venting or moisture levels within the LWIC and the potential effect on overlying components.
- Preliminary insulation attachment: Unless otherwise noted, use FBC Approved roofing fasteners and plates and refer to Section 2.2.10.1.3 of [FM Loss Prevention Data Sheet 1-29](#).

6 Unless otherwise noted, insulation adhesive application rates are as follows.

- Ribbon or bead width is at the time of application; the ribbons/beads shall expand as noted in the manufacturer’s published instructions.
- When multiple layers(s) of insulation and/or coverboard are installed in ribbon-applied adhesive, board joints shall be staggered.
- The maximum edge distance from the adhesive ribbon to the edge of the insulation board shall be not less than one-half the specified ribbons spacing.

INSULATION ADHESIVE REFERENCES			
BY	ADHESIVE	FBC FILE OR NOA	MINIMUM RATE
Holcim	I.S.O. FIX II	N/A	Continuous 0.75-inch ribbons, 8-inch o.c.
	I.S.O. Spray R	NOA 23-0613.09	Continuous 0.5 to 0.75-inch ribbons, 12-inch o.c.
	I.S.O. Stick	N/A	Continuous 0.75 to 1-inch ribbons, 12-inch o.c. (PaceCart, SpotShot or Canister)
	I.S.O. Twin Pack	N/A	Continuous 0.5 to 0.75-inch ribbons, 12-inch o.c.
	Twin Jet	NOA 23-0613.09	Continuous 0.75-inch ribbons, 12-inch o.c. Note: Twin Jet may be used where I.S.O. Stick is referenced herein for insulation securement.

7 RESERVED

8 RESERVED

- 9 For mechanically attached components or partially-bonded insulation, the maximum design pressure for the selected assembly shall meet or exceed at least the Zone 1 PRIME design pressure determined in accordance with FBC Chapter 16. Elevated pressure zones shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are [ANSI/SPRI WD1](#), [FM Loss Prevention Data Sheet 1-29](#), [Roofing Application Standard RAS 117](#) and [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 Zone 2/3 enhancements.
- 10 For assemblies with all components fully bonded, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with FBC Chapter 16. No rational analysis is permitted for these systems.
- 11 For mechanically attached components over existing decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing and analysis shall be in accordance with [ANSI/SPRI FX-1](#) or [Testing Application Standard TAS 105](#).
- 12 For bonded insulation or membrane over existing substrates in a re-roof (tear off) or recover installation, the existing deck or existing roof surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing shall be conducted on mock-ups of the proposed new roof assembly. For bonded insulation or membrane over existing substrates in a recover installation, the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the Authority Having Jurisdiction, as documented through field uplift testing. Field uplift testing shall be in accordance with ASTM E907, [FM Loss Prevention Data Sheet 1-52](#) or [Testing Application Standard TAS 124](#).
- 13 Refer to FBC 1511 for requirements and limitations regarding recover installations. For Structural Concrete Deck or Recover Applications using System Type C-1 the base insulation layer is optional and for System Type C-2, D-1 or D-2, the insulation is optional. Alternatively, an FBC Approved insulation board or coverboard may be used as a separation layer. Board products shall be prelim. attached prior to roof cover installation ([Note 5](#)). The separator component shall be documented as meeting FBC 1505 and, for foam plastic, FBC Chapter 26, when installed with the roof cover in Recover applications.
- 14 Lightweight insulating concrete (LWIC) shall be cast in accordance with FBC Section 1917 to the satisfaction of the Authority Having Jurisdiction. For systems where specific LWIC is referenced, refer to current LWIC Product Approval for specific deck construction and limitations. Unless otherwise noted, for systems where specific LWIC is not referenced, the minimum design mix shall be 300 psi. In all cases, the minimum top-coat thickness is 2-inches. For LWIC over structural concrete, reference is made to FBC Section 1917.4.1, Point 1. For “pre-existent” LWIC references, listings were established through testing over lightweight concrete cast using only foaming agent (ASTM C896), water and Portland cement (ASTM C150), with no proprietary additives, in accordance with procedures adopted by Miami-Dade BCCO (FBC CER1592). Use of these listings in new construction or re-roof (tear-off) applications is at the discretion of the Designer or Record and Authority Having Jurisdiction.

15 Unless otherwise noted, refer to the following.

POLYURETHANE FOAM & PROTECTIVE COATING APPLICATION	
POLYURETHANE FOAM APPLICATION	PROTECTIVE COATING APPLICATION
GacoRoofFoam 2733 shall be applied uniformly over the entire surface at the specified minimum thickness and not less than 1-inch thick; feathered at the edges to produce smooth transitions.	Protective coating shall be applied in accordance with Gaco current published installation instructions. The scope of this Evaluation Report includes the following protective coating options: ✓ GacoFlex A-31, GacoFlex A-47, GacoFlex U-91, GacoFlex S-10, GacoFlex S-20, GacoFlex S-21, GacoFlex S-42 or GacoRoof GR-16
GacoRoofFoam Low GWP F2780 shall be applied uniformly over the entire surface in three passes to the specified minimum thickness and not less than 2-inch thick; feathered at the edges to produce smooth transitions.	

16 The following products are interchangeable within the scope of this Evaluation Report.

ACCEPTABLE ALTERNATES				
SUB-CATEGORY	By	FBC FILE	LISTED PRODUCT	ALTERNATE
Roofing Insulation	G-P Gypsum, LLC	FL1250	DensDeck Prime	DensDeck StormX Prime Roof Board

17 "MDP" = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads. Refer to FBC 1609 for determination of design wind loads. [\(Notes 9 and 10\)](#)

TABLE 1A: WOOD DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER						
System No.	Deck (Note 1)	Thermal Barrier		Primer	SPUF / Roof Cover (Note 15)	MDP (psf)
		Type	Attach (Notes 6,7,8)			
GACOROOFFOAM 2733:						
W-1.	Min. CAT 19/32 PS 1-09, CDX plywood; 2-ft span; 8d ring shank nails, 6" o.c.	Min. 0.5-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	I.S.O. Spray R, I.S.O. Stick, I.S.O. Twin Pack or Twin Jet	(Optional) GacoFlex A-46, GacoFlex E5320 or GacoPrime Low VOC	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-120.0
GACOROOFFOAM LOW GWP F2780:						
W-2.	Min. CAT 19/32 PS 1-09, CDX plywood; 2-ft span; 8d ring shank nails, 6" o.c.	Min. 0.5-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	I.S.O. Spray R, I.S.O. Stick, I.S.O. Twin Pack or Twin Jet	(Optional) GacoFlex A-46, GacoFlex E5320 or GacoPrime Low VOC	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-120.0

**TABLE 1B: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Base Insulation Layer (Note 3, Note 13)	Top Insulation Layer			Primer	SPUF / Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners (Note 11)	Attach			
GACOROOFFOAM 2733:								
W-3.	Min. CAT 19/32 PS 1-09, CDX plywood; 2-ft span; 0.113 x 2-3/8 in. ring shank nails, 6" o.c.	(Optional) One or more layer(s), loose-laid	Min. 0.5-inch DensDeck Prime	Note 2	1 per 1.6 ft ²	GacoFlex A-46 at 1 gal/sq.	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-82.5
GACOROOFFOAM Low GWP F2780:								
W-4.	Min. CAT 19/32 PS 1-09, CDX plywood; 2-ft span; 0.113 x 2-3/8 in. ring shank nails, 6" o.c.	(Optional) One or more layer(s), loose-laid	Min. 0.5-inch DensDeck Prime	Note 2	1 per 1.6 ft ²	None	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-82.5

**TABLE 1c: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE D-2: INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

System No.	Deck (Note 1)	Insulation (Note 3, Note 13)	Base Sheet			Primer	SPUF / Roof Cover (Note 15)	MDP (psf)
			Base	Fasteners (Note 11)	Attach			
GACOROOFFOAM 2733:								
W-5.	Min. CAT 19/32 PS 1-09, CDX plywood; 2-ft span; 0.113 x 2-3/8 in. ring shank nails, 6" o.c.	Any combination, loose-laid	MB Base, SBS Base or SBS Premium Base	Note 2	18-inch o.c. at the 2-inch side laps and 18-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	None	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-37.5*
W-6.	Min. CAT 19/32 PS 1-09, CDX plywood; 2-ft span; 0.113 x 2-3/8 in. ring shank nails, 6" o.c.	Any combination, loose-laid	MB Base, SBS Base or SBS Premium Base	Note 2	12-inch o.c. at the 3-inch side laps and 12-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	None	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-67.5
W-7.	Min. CAT 19/32 PS 1-09, CDX plywood; 2-ft span; 0.113 x 2-3/8 in. ring shank nails, 6" o.c.	Any combination, loose-laid	SBS Base or SBS Premium Base	Note 2	12-inch o.c. at the 3-inch side laps and 12-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	GacoFlex A-46 at 1 gal/sq.	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-67.5
GACOROOFFOAM Low GWP F2780:								
W-8.	Min. CAT 19/32 PS 1-09, CDX plywood; 2-ft span; 0.113 x 2-3/8 in. ring shank nails, 6" o.c.	Any combination, loose-laid	SBS Base	Note 2	18-inch o.c. at the 2-inch side laps and 18-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	None	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-37.5*
W-9.	Min. CAT 19/32 PS 1-09, CDX plywood; 2-ft span; 0.113 x 2-3/8 in. ring shank nails, 6" o.c.	Any combination, loose-laid	MB Base	Note 2	12-inch o.c. at the 3-inch side laps and 12-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	None	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-52.5
W-10.	Min. CAT 19/32 PS 1-09, CDX plywood; 2-ft span; 0.113 x 2-3/8 in. ring shank nails, 6" o.c.	Any combination, loose-laid	SBS Base	Note 2	12-inch o.c. at the 3-inch side laps and 12-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	None	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-60.0

**TABLE 1D: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE E-2: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

System No.	Deck (Note 1)	Base Sheet			Primer	SPUF / Roof Cover (Note 15)	MDP (psf)
		Base	Fasteners (Note 11)	Attach			
GACO ROOF FOAM 2733:							
W-11.	Min. CAT 19/32 PS 1-09, CDX plywood; 2-ft span; 0.113 x 2-3/8 in. ring shank nails, 6" o.c.	MB Base, SBS Base or SBS Premium Base	Note 2	18-inch o.c. at the 2-inch side laps and 18-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	None	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-37.5*
W-12.	Min. CAT 19/32 PS 1-09, CDX plywood; 2-ft span; 0.113 x 2-3/8 in. ring shank nails, 6" o.c.	MB Base, SBS Base or SBS Premium Base	FBC HVHZ 1519.5.1 nails & tin caps (no recover applications)	9-inch o.c. at the 2-inch side laps and 9-inch o.c. at three (3), equally spaced, staggered rows in the center of the sheet	None	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-52.5
W-13.	Min. CAT 19/32 PS 1-09, CDX plywood; 2-ft span; 0.113 x 2-3/8 in. ring shank nails, 6" o.c.	MB Base, SBS Base or SBS Premium Base	Note 2	12-inch o.c. at the 3-inch side laps and 12-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	None	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-67.5
W-14.	Min. CAT 19/32 PS 1-09, CDX plywood; 2-ft span; 0.113 x 2-3/8 in. ring shank nails, 6" o.c.	SBS Base or SBS Premium Base	Note 2	12-inch o.c. at the 3-inch side laps and 12-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	GacoFlex A-46 at 1 gal/sq.	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-67.5
W-15.	Min. CAT 19/32 PS 1-09, CDX plywood; 2-ft span; 0.113 x 2-3/8 in. ring shank nails, 6" o.c.	SBS Premium Base	FBC HVHZ 1519.5.1 nails & tin caps (no recover applications)	6-inch o.c. at the 3.5-inch side laps and 6-inch o.c. at three (3), equally spaced, staggered rows in the center of the sheet	None	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-82.5
GACO ROOF FOAM LOW GWP F2780:							
W-16.	Min. CAT 19/32 PS 1-09, CDX plywood; 2-ft span; 0.113 x 2-3/8 in. ring shank nails, 6" o.c.	SBS Base	Note 2	18-inch o.c. at the 2-inch side laps and 18-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	None	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-37.5*
W-17.	Min. CAT 19/32 PS 1-09, CDX plywood; 2-ft span; 0.113 x 2-3/8 in. ring shank nails, 6" o.c.	GAFGLAS Stratavent Perforated Venting Base Sheet	FBC HVHZ 1519.5.1 nails & tin caps (no recover applications)	7-inch o.c. at the 2-inch side laps and 7-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	None	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-45.0*
W-18.	Min. CAT 19/32 PS 1-09, CDX plywood; 2-ft span; 0.113 x 2-3/8 in. ring shank nails, 6" o.c.	MB Base	Note 2	12-inch o.c. at the 3-inch side laps and 12-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	None	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-52.5
W-19.	Min. CAT 19/32 PS 1-09, CDX plywood; 2-ft span; 0.113 x 2-3/8 in. ring shank nails, 6" o.c.	SBS Base	Note 2	12-inch o.c. at the 3-inch side laps and 12-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	None	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-60.0

**TABLE 2A: STEEL DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Thermal Barrier		Primer	SPUF / Roof Cover (Note 15)	MDP (psf)
		Type	Attach (Notes 6,7,8)			
GACOROOFFOAM 2733:						
S-1.	Min. 22 ga., Type B, 33 ksi steel; 6 ft span; puddle welds 6" o.c.	None	N/A	None	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-75.0
S-2.	Min. 22 ga., Type B, 55 ksi steel; 6 ft span; #12-24 HWH screws, 6" o.c.	None	N/A	None	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-105.0
S-3.	Min. 22 ga., Type B, Grade 40 steel; 6 ft span; Tek 5 screws, 6" o.c.	Min. 0.5-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	I.S.O. Spray R, I.S.O. Stick, I.S.O. Twin Pack or Twin Jet	(Optional) GacoFlex A-46, GacoFlex E5320 or GacoPrime Low VOC	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-105.0
S-4.	Min. 22 ga., Type B, Grade 40 steel; 6 ft span; Tek 5 screws, 6" o.c.	Min. 0.5-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	I.S.O. Spray R, I.S.O. Stick, I.S.O. Twin Pack or Twin Jet, 6-inch o.c.	(Optional) GacoFlex A-46, GacoFlex E5320 or GacoPrime Low VOC	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-165.0
GACOROOFFOAM Low GWP F2780:						
S-5.	Min. 22 ga., Type B, Grade 40 steel; 6 ft span; #12-24 HWH screws, 6" o.c.	None	N/A	None	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-97.5
S-6.	Min. 22 ga., Type B, Grade 40 steel; 6 ft span; Tek 5 screws, 6" o.c.	Min. 0.5-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	I.S.O. Spray R, I.S.O. Stick, I.S.O. Twin Pack or Twin Jet	(Optional) GacoFlex A-46, GacoFlex E5320 or GacoPrime Low VOC	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-105.0
S-7.	Min. 22 ga., Type B, Grade 50 steel; 6 ft span; #12-24 HWH screws, 6" o.c.	None	N/A	None	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-120.0
S-8.	Min. 22 ga., Type B, Grade 80 steel; 6 ft span; #12-24 HWH screws, 6" o.c.	None	N/A	None	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-150.0
S-9.	Min. 20 ga., Type B, Grade 80 steel; 6 ft span; #12-24 HWH screws, 6" o.c.	None	N/A	None	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-165.0
S-10.	Min. 22 ga., Type B, Grade 40 steel; 6 ft span; Tek 5 screws, 6" o.c.	Min. 0.5-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	I.S.O. Spray R, I.S.O. Stick, I.S.O. Twin Pack or Twin Jet, 6-inch o.c.	(Optional) GacoFlex A-46, GacoFlex E5320 or GacoPrime Low VOC	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-165.0

**TABLE 2B: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Base Insulation Layer (Note 3, Note 13)	Top Insulation Layer			SPUF / Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners (Note 11)	Attach		
GacoRoofFoam 2733:							
S-11.	Min. 22 ga., Type B, 60 ksi steel; 6 ft span; puddle welds 6" o.c.	(Optional) One or more layer(s), loose-laid	0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.0 ft ²	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-60.0
S-12.	Min. 22 ga., Type B, 33 ksi steel; 6 ft span; puddle welds 6" o.c.	(Optional) One or more layer(s), loose-laid	Min. 0.5-inch DensDeck Prime	Note 2	1 per 1.6 ft ²	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-75.0
S-13.	Min. 22 ga., Type B, 55 ksi steel; 6 ft span; #12-24 HWH screws, 6" o.c.	(Optional) One or more layer(s), loose-laid	Min. 0.5-inch DensDeck Prime	Note 2	1 per 1.6 ft ²	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-97.5
GacoRoofFoam Low GWP F2780:							
S-14.	Min. 22 ga., Type B, 60 ksi steel; 6 ft span; puddle welds 6" o.c.	(Optional) One or more layer(s), loose-laid	0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.0 ft ²	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-60.0
S-15.	Min. 22 ga., Type B, 33 ksi steel; 6 ft span; puddle welds 6" o.c.	(Optional) One or more layer(s), loose-laid	Min. 0.5-inch DensDeck Prime	Note 2	1 per 1.6 ft ²	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-75.0
S-16.	Min. 22 ga., Type B, 55 ksi steel; 6 ft span; #12-24 HWH screws, 6" o.c.	(Optional) One or more layer(s), loose-laid	Min. 0.5-inch DensDeck Prime	Note 2	1 per 1.6 ft ²	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-97.5

**TABLE 2C: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE D-2: INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

System No.	Deck (Note 1)	Insulation (Note 3, Note 13)	Base Sheet			Primer	SPUF / Roof Cover (Note 15)	MDP (psf)
			Base	Fasteners (Note 11)	Attach			
GacoRoofFoam 2733:								
S-17.	Min. 22 ga., Type B, Grade 33 steel; 6 ft span; #12-24 HWH screws, 6" o.c.	Min. 1-inch thick, any combination, loose-laid	SBS Base or SBS Premium Base	Note 2	12-inch o.c. at the 3.4-inch side laps and 12-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	None	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-60.0
GacoRoofFoam Low GWP F2780:								
S-18.	Min. 22 ga., Type B, Grade 33 steel; 6 ft span; #12-24 HWH screws, 6" o.c.	Min. 1-inch thick, any combination, loose-laid	SBS Base	Note 2	12-inch o.c. at the 3.4-inch side laps and 12-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	None	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-60.0

**TABLE 3A: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	SPUF / Roof Cover (Note 15)	MDP (psf)
GacoRoofFoam 2733:			
C-1	Min. 2,500 psi structural concrete	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-435.0
GacoRoofFoam Low GWP F2780:			
C-2	Min. 2,500 psi structural concrete	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-502.5

**TABLE 4A: LIGHTWEIGHT CONCRETE OVER STEEL DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1: LWC TO DECK, BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Lightweight Concrete (Note 14)	Base Insulation Layer		Coverboard		SPUF / Roof Cover (Note 15)	MDP (psf)
			Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)		
CONCRECEL (FL5584 & FL10500 OR NOA 21-1229.06):								
LWC-1	Min. 22 ga., Type BV, 60 ksi steel; 6 ft span; puddle welds 6" o.c.	Min. 550 psi, min. 2-inch thick Concrecel Cellular Concrete	0.5-inch DensDeck Prime	I.S.O. Fix II, I.S.O. Spray R, I.S.O. Stick or I.S.O. Twin Pack, 6-inch o.c.	None	N/A	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating or Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-30.0

**TABLE 4B: LIGHTWEIGHT CONCRETE OVER STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1: LWC TO DECK, BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Lightweight Concrete (Note 14)	Base Insulation Layer		Coverboard		SPUF / Roof Cover (Note 15)	MDP (psf)
			Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)		
CONCRECEL (FL5584 & FL10500 OR NOA 21-1229.06):								
LWC-2	Min. 2,500 psi structural concrete	Min. 770 psi, min. 2-inch thick Concrecel Cellular Concrete	0.5-inch DensDeck Prime	I.S.O. Fix II, I.S.O. Spray R, I.S.O. Stick or I.S.O. Twin Pack, 6-inch o.c.	None	N/A	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating or Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-187.5

**TABLE 4c: LIGHTWEIGHT CONCRETE OVER STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-1: LWC TO DECK, MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Lightweight Concrete (Note 14)	Top Insulation Layer			SPUF / Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners (Note 11)	Attach		
CONCRECEL (FL5584 & FL10500 OR NOA 21-1229.06):							
LWC-3	Min. 22 ga., Type BV, 60 ksi steel; 6 ft span; puddle welds 6" o.c.	Min. 460 psi, min. 2-inch thick Concrecel Cellular Concrete	0.5-inch SECUROCK Gypsum-Fiber Roof Board	Firestone All-Purpose Fasteners or Heavy-Duty Fasteners with Firestone Insulation Fastening Plates	1 per 2.0 ft ²	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating or Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-60.0
LWC-4	Min. 22 ga., Type BV, 60 ksi steel; 6 ft span; puddle welds 6" o.c.	Min. 520 psi, min. 2-inch thick Concrecel Cellular Concrete	0.5-inch DensDeck Prime	Firestone Heavy-Duty Fasteners with Firestone Insulation Fastening Plates	1 per 1.6 ft ²	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating or Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-82.5

**TABLE 4d: LIGHTWEIGHT CONCRETE OVER STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE E-2: LWC TO DECK, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

System No.	Deck (Note 1)	Lightweight Concrete (Note 14)	Base Sheet			Primer	SPUF / Roof Cover (Note 15)	MDP (psf)
			Base	Fasteners (Note 11)	Attach			
ELASTIZELL (FL4994 OR NOA 23-0817.05):								
LWC-5	Min. 22 ga., Type BV, Grade 33 steel; 5 ft span; 5/8" puddle welds, 6" o.c. or structural concrete	Min. 210 psi, min. 2-inch thick Elastizell Lightweight Concrete with Zell-Crete Fibers	SBS Base or SBS Premium Base	Firestone 1.7" Assembled LWC Base Ply Fasteners	9-inch o.c. at the 3-inch side laps and 9-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	None	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating or Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-45.0
CELCORE (FL2037 OR NOA 23-0718.06):								
LWC-6	Min. 22 ga., Type BV, Grade 33 steel; 6 ft span; 5/8" puddle welds, 6" o.c. or structural concrete	Celcore S-1 followed by Min. 410 psi, min. 2-inch thick Celcore MF with Celcore HS Rheology Modifying Admixture	SBS Base or SBS Premium Base	Firestone 1.8" Two-Piece Impact Nails	8-inch o.c. at the 3-inch side laps and 8-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	None	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating or Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-52.5
LWC-7	Min. 22 ga., Type BV, Grade 33 steel; 6 ft span; 5/8" puddle welds, 6" o.c. or structural concrete	Celcore S-1 followed by Min. 410 psi, min. 2-inch thick Celcore MF with Celcore HS Rheology Modifying Admixture	MB Base, SBS Base or SBS Premium Base	Firestone 1.7" Assembled LWC Base Ply Fasteners	8-inch o.c. at the 3-inch side laps and 8-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	None	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating or Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-60.0
LWC-8	Min. 22 ga., Type BV, Grade 33 steel; 6 ft span; 5/8" puddle welds, 6" o.c. or structural concrete	Celcore S-1 followed by Min. 360 psi, min. 2-inch thick Celcore MF with Celcore HS Rheology Modifying Admixture	SBS Base or SBS Premium Base	Firestone 1.8" Two-Piece Impact Nails	7-inch o.c. at the 3-inch side laps and 7-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	None	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-67.5

**TABLE 4D: LIGHTWEIGHT CONCRETE OVER STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE E-2: LWC TO DECK, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

System No.	Deck (Note 1)	Lightweight Concrete (Note 14)	Base Sheet			Primer	SPUF / Roof Cover (Note 15)	MDP (psf)
			Base	Fasteners (Note 11)	Attach			
LWC-9	Min. 22 ga., Type BV, Grade 33 steel; 6 ft span; 5/8" puddle welds, 6" o.c. or structural concrete	Celcore S-1 followed by Min. 420 psi, min. 2-inch thick Celcore MF with Celcore HS Rheology Modifying Admixture	SBS Base or SBS Premium Base	Firestone 1.7" Assembled LWC Base Ply Fasteners	7-inch o.c. at the 3-inch side laps and 7-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	GacoFlex A-46 at 1 gal/sq.	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-75.0
MEARLCRETE (FL13492 OR NOA 19-0729.03):								
LWC-10	Min. 22 ga., Type BV, Grade 33 steel; 5 ft span; 5/8" puddle welds, 6" o.c. or structural concrete	Min. 250 psi, min. 2-inch thick Mearlcrete	MB Base, SBS Base or SBS Premium Base	Firestone 1.7" Assembled LWC Base Ply Fasteners	7-inch o.c. at the 4-inch side laps and 7-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	None	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating or Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-52.5
PRE-EXISTENT CELLULAR LWC (NOTE 14):								
LWC-11	Min. 22 ga., Type BV, Grade 33 steel; 5 ft span; #12-24 HWH screws with 1/2-inch washers, 6" o.c. or structural concrete	Min. 340 psi, min. 2-inch thick pre-existent cellular lightweight concrete. <i>Note: To qualify the LWC under this assembly, a Firestone 1.7" Assembled LWC Base Sheet Fastener shall achieve an average withdrawal of 80 lbf when tested per TAS 105 or ANSI/SPRI FX-1</i>	MB Base, SBS Base or SBS Premium Base	Firestone 1.7" Assembled LWC Base Ply Fasteners	7-inch o.c. at the 3-inch side laps and 7-inch o.c. at two (2), equally spaced, staggered rows in the center of the sheet	None	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating or Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-60.0

**TABLE 5A: CEMENTITIOUS WOOD FIBER DECKS - REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1, Note 12)	SPUF / Roof Cover (Note 15)	MDP (psf)
GacoRoofFoam 2733:			
CWF-1.	Tectum I	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-222.5
GacoRoofFoam Low GWP F2780:			
CWF-2.	Tectum I	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-165.0

**TABLE 6A: GYPSUM DECKS - REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1, Note 12)	SPUF / Roof Cover (Note 15)	MDP (psf)
GacoRoofFoam 2733:			
G-1.	Existing poured gypsum deck	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-222.5
GacoRoofFoam Low GWP F2780:			
G-2.	Existing poured gypsum deck	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-90.0

TABLE 7A: RECOVER APPLICATIONS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

^A The reported MDP documents the allowable maximum design pressure of the new SPUF / Roof Cover when adhered to the substrate, irrespective of the deck type ([See Note 1](#)) or performance of the substrate ([See Note 12](#)). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate (Note 1 , Note 12)	SPUF / Roof Cover (Note 15)	MDP (psf) ^A
GacoRoofFoam 2733:			
R-1	Existing, fully-adhered, asphaltic built-up roof (BUR) with smooth-surface	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-135.0
R-2	Existing, fully-adhered, modified bitumen, SBS, granule-surface	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-155.0
R-3	Existing, fully-adhered, asphaltic built-up roof (BUR) with gravel-surface (loose gravel removed)	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-220.0
R-4	Existing, fully-adhered, modified bitumen, APP, smooth-surface (sanded)	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-430.0
R-5	Existing, fully-adhered, modified bitumen, APP, granule-surface	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-502.5
R-6	Existing, fully-adhered, modified bitumen, SBS, smooth-surface (sanded)	Min. 1-inch GacoRoofFoam 2733 followed by Approved coating	-502.5
GacoRoofFoam Low GWP F2780:			
R-7	Existing, fully-adhered, asphaltic built-up roof (BUR) with gravel-surface (loose gravel removed)	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-172.5
R-8	Existing, fully-adhered, modified bitumen, APP, smooth-surface (sanded)	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-232.5
R-9	Existing, fully-adhered, asphaltic built-up roof (BUR) with smooth-surface	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-280.0
R-10	Existing, fully-adhered, modified bitumen, SBS, smooth-surface (sanded)	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-365.0
R-11	Existing, fully-adhered, modified bitumen, APP, granule-surface	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-412.5
R-12	Existing, fully-adhered, modified bitumen, SBS, granule-surface	Min. 2-inch GacoRoofFoam Low GWP F2780 followed by Approved coating	-502.5