



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)  
BOARD AND CODE ADMINISTRATION DIVISION

**NOTICE OF ACCEPTANCE (NOA)**

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208  
Miami, Florida 33175-2474  
T (786)315-2590 F (786) 31525-99

[www.miamidade.gov/economy](http://www.miamidade.gov/economy)

**CertainTeed Corporation**  
**18 Moores Road**  
**Malvern, PA 19355**

**SCOPE:**

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

**DESCRIPTION: CertainTeed Modified Bitumen System over Lightweight Concrete Decks.**

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA 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 NOA revises NOA No. 14-0224.02 and consists of pages 1 through 34.  
The submitted documentation was reviewed by Alex Tigera.



NOA No.: 14-0529.01  
Expiration Date: 05/22/18  
Approval Date: 10/08/15  
Page 1 of 34

## ROOFING SYSTEM APPROVAL

<b>Category:</b>	Roofing
<b>Sub-Category:</b>	Modified Bitumen
<b>Material:</b>	APP/SBS
<b>Deck Type:</b>	Lightweight Concrete
<b>Maximum Design Pressure:</b>	-67.5 psf

## TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
All Weather/Empire Base Sheet	39 3/8" x 65'10"; Roll weight: 70 lbs. (2 squares)	ASTM D 4601, Type II UL G2	Asphalt coated, fiberglass reinforced base sheet.
Flexiglas Base Sheet	39 3/8" x 98'9"; Roll weight: 90 lbs. (3 squares)	ASTM D 4601, Type II UL Type G2	Modified Bitumen coated fiberglass base sheet.
Flintlastic Base 20	39 3/8" x 49'6"; Roll weight: 90 lbs. (1.5 squares)	ASTM D 6163, Grade S, Type I	Modified Bitumen coated fiberglass base sheet.
Flintlastic Ultra Glass SA	39 3/8" x 33'11"	ASTM D 6163, Type I	Self-adhering, fiberglass reinforced, SBS modified bitumen base/ply sheet.
Black Diamond Base Sheet	39 3/8" x 68'7"	ASTM D 1970	Self-adhering, fiberglass reinforced, SBS modified bitumen base/ply sheet.
Flintglas Ply Sheet Type IV	39 3/8" x 164'7"; Roll weight: 38 lbs. (5 squares)	ASTM D 2178, Type IV UL Type G1	Fiberglass, asphalt impregnated ply sheet.
Flintglas Premium Ply Sheet Type VI	39 3/8" x 164'7"; Roll weight: 40 lbs. (5 squares)	ASTM D 2178, Type VI UL Type G1	Fiberglass, asphalt impregnated ply sheet.
Flintlastic STA	39 3/8" x 32'10"; Roll weight: 87 lbs. (1 square)	ASTM D 6222, Grade S, Type I	Smooth surfaced APP Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application.
Flintlastic GTA	39 3/8" x 32'10"; Roll weight: 105 lbs. (1 square)	ASTM D 6222, Grade G, Type I	Granule surfaced APP Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application.
Flintlastic GTA-FR	39 3/8" x 32' 10"; Roll weight: 105 lbs. (1 square)	ASTM D 6222, Grade G, Type I	Granule surfaced APP Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application.



**TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:**

**TABLE 1**

<b><u>Product</u></b>	<b><u>Dimensions</u></b>	<b><u>Test Specification</u></b>	<b><u>Product Description</u></b>
Flintlastic GMS	39 3/8" x 32' 10"; Roll weight: 94 lbs. (1 square)	ASTM D 6164, Grade G, Type I	Granule surfaced SBS Modified Bitumen membrane with non-woven polyester mat reinforcement for mop application.
Flintlastic Premium GMS	39 3/8" x 32' 10"; Roll weight: 101 lbs. (1 square)	ASTM D 6164, Grade G, Type II	Granule surfaced SBS Modified Bitumen membrane with non-woven polyester mat reinforcement for mop application.
Flintlastic FR-P	39 3/8" x 32' 10"; Roll weight: 101 lbs. (1 square)	ASTM D 6164, Grade G, Type I	Fire resistant, granule surfaced SBS Modified Bitumen Membrane with non-woven polyester mat reinforcement for mop application.
Flintlastic Premium FR-P	39 3/8" x 32' 10"; Roll weight: 101 lbs. (1 square)	ASTM D 6164, Grade G, Type II	Fire resistant, granule surfaced SBS Modified Bitumen Membrane with non-woven polyester mat reinforcement for mop application.
Flintlastic FR Dual Cap	39 3/8" x 32' 10"; Roll weight: 103 lbs. (1 square)	ASTM D 6162, Grade G, Type I	Granule surfaced SBS modified bitumen membrane with a nonwoven polyester/fiberglass composite mat reinforcement for use in cold or mop applications.
Flintlastic FR Cap 30	39 3/8" x 32' 10"; Roll weight: 86 lbs. (1 square)	ASTM D 6163, Grade G, Type I	Fire resistant, granule surfaced SBS Modified Bitumen membrane with fiberglass mat reinforcement for mop applications.
Flintlastic FR Cap 30 T	39 3/8" x 32' 10"; Roll weight: 100 lbs. (1 square)	ASTM D 6163, Grade G, Type I	Granule surfaced SBS Modified Bitumen membrane with fiberglass mat reinforcement for torch application.
Flintlastic Base 20 T	39 3/8" x 33'; Roll Weight: 81lbs. (1 square)	ASTM D 6163, Grade S, Type I	Modified Bitumen, coated fiberglass base sheet for torch application.
Flintlastic FR Cap 30 CoolStar	39 3/8" x 32' 10"; Roll weight: 88 lbs. (1 square)	ASTM D 6163, Grade G, Type I	Fire resistant, granule surfaced SBS Modified Bitumen membrane with fiberglass mat reinforcement for mop applications. Covered with reflective CoolStar Coating.



**TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:**

**TABLE 1**

<b><u>Product</u></b>	<b><u>Dimensions</u></b>	<b><u>Test Specification</u></b>	<b><u>Product Description</u></b>
Flintlastic FR Cap 30 T CoolStar	39 3/8" x 32'10"; Roll weight: 102 lbs. (1 square)	ASTM D 6163, Grade G, Type I	Fire resistant, granule surfaced SBS Modified Bitumen membrane with fiberglass mat reinforcement for mop applications. Covered with reflective CoolStar Coating.
Flintlastic GTA CoolStar	39 3/8" x 32'10"; Roll weight: 106 lbs. (1 square)	ASTM D 6222, Grade G, Type I	Granule surfaced APP Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application. Covered with reflective CoolStar Coating.
Flintlastic GTA-FR CoolStar	39 3/8" x 32'10"; Roll weight: 106 lbs. (1 square)	ASTM D 6222, Grade G, Type I	Granule surfaced APP Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application. Covered with reflective CoolStar Coating.
Flintlastic GMS CoolStar	39 3/8" x 32'10"; Roll weight: 97 lbs. (1 square)	ASTM D 6164, Grade G, Type I	Granule surfaced SBS Modified Bitumen membrane with non-woven polyester mat reinforcement for mop application. Covered with reflective CoolStar Coating.
Flintlastic Premium GMS CoolStar	39 3/8" x 32'10"; Roll weight: 103 lbs. (1 square)	ASTM D 6164, Grade G, Type II	Granule surfaced SBS Modified Bitumen membrane with non-woven polyester mat reinforcement for mop application. Covered with reflective CoolStar Coating.
Flintlastic FR-P CoolStar	39 3/8" x 32'10"; Roll weight: 103 lbs. (1 square)	ASTM D 6164, Grade G, Type I	Fire resistant, granule surfaced SBS Modified Bitumen Membrane with non-woven polyester mat reinforcement for mop application. Covered with reflective CoolStar Coating.
Flintlastic Premium FR-P CoolStar	39 3/8" x 32'10"; Roll weight: 103 lbs. (1 square)	ASTM D 6164, Grade G, Type II	Fire resistant, granule surfaced SBS Modified Bitumen Membrane with non-woven polyester mat reinforcement for mop application. Covered with reflective CoolStar Coating.
Flintlastic Ultra Poly SMS Base Sheet	39 3/8" x 32' 10"; Roll weight: 90 lbs. (1 square)	ASTM D 6164, Grade S, Type I	Smooth surfaced SBS Modified Bitumen Membrane with non-woven polyester mat reinforcement for mop applications.



**TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:**

**TABLE 1**

<b><u>Product</u></b>	<b><u>Dimensions</u></b>	<b><u>Test Specification</u></b>	<b><u>Product Description</u></b>
Glasbase Base Sheet	39 3/8" x 98'9"; Roll weight: 75 lbs. (3 squares)	ASTM D 4601, Type II UL Type G2	Asphalt coated, fiberglass base sheet.
Flintlastic Poly SMS Base Sheet	39 3/8" x 64' 3"; Roll weight: 90 lbs. (2 squares)	ASTM D 4601, Grade S, Type II UL Type G2	Modified Bitumen coated polyester base sheet.
Yosemite Venting Base Sheet	39 3/8" x 32' 10"; Roll weight: 85 lbs. (1 square)	ASTM D 3909 ASTM D 4897, Type II UL G3	Mineral Surfaced fiberglass reinforced buffer sheet.
Flintlastic APP Base T	39 3/8" x 65' 4"; Roll weight: 100 lbs. (2 squares)	ASTM D6509	Modified Bitumen coated fiberglass base sheet.

**APPROVED INSULATIONS:**

**TABLE 2**

<b><u>Product Name</u></b>	<b><u>Product Description</u></b>	<b><u>Manufacturer (With Current NOA)</u></b>
FlintBoard ISO	Polyisocyanurate foam insulation	CertainTeed Corp.
FlintBoard <sub>H</sub> ISO, FlintBoard <sub>H</sub> ISO Cold	Polyisocyanurate foam insulation	CertainTeed Corp.
ACFoam-II, ACFoam-IV	Polyisocyanurate foam insulation	Atlas Roofing Corp.
High Density Wood Fiberboard	Wood fiber insulation board	Generic
Perlite Insulation	Perlite insulation board	Generic
DensDeck, DensDeck Prime	Water resistant gypsum board	Georgia Pacific Gypsum LLC
H-Shield, H-Shield CG	Polyisocyanurate foam insulation	Hunter Panels LLC
ENRGY 3, ENRGY 3 25 PSI	Polyisocyanurate foam insulation	Johns Manville Corp.
Multi-Max FA-3	Polyisocyanurate roof insulation	RMax Operating, LCC
Insulfoam EPS	Expanded Polystyrene	Insulfoam, a Div. of Carlisle Const. Materials



**APPROVED FASTENERS:**

**TABLE 3**

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
1.	FM-90	Base ply fastening systems for lightweight concrete decks.	2.7" x 1.7"	Altenloh, Brinck & Co. U.S., Inc.
2.	CR Assembled Base Sheet Fastener (1.2") and CR Assembled Base Sheet Fastener (1.7")	Fastener assembly for Base Sheet fastening only	1.125" x 1.2" 2.75" Galvalume steel stress plate and 1.125" x 1.75" 2.75" Galvalume steel stress plate	OMG, Inc.
3.	Twin Loc-Nails	Galvanized stress plate and tube with integrated locking staple	2.7" round x various lengths	Altenloh, Brinck & Co. U.S., Inc.

**APPROVED SURFACING/COATING OPTIONS:**

**TABLE 4**

Chosen components must be applied according to manufacturer’s application instructions. Any coating, listed below, used as a surfacing, must be listed within a current NOA.

<u>System Number</u>	<u>Manufacturer</u>	<u>Application</u>
1.	Generic	Gravel applied at 400 lbs/sq., adhered with flood coat of asphalt at 60 lbs/sq.
2.	Generic	Slag applied at 300 lbs/sq., adhered with flood coat of asphalt at 60 lbs/sq.
3.	Karnak Corp.	Karnak (#97 AF) Fibrated Aluminum Roof Coating applied at an application rate of 1.5 gal/sq.
4.	CertainTeed Corp.	FlintCoat A-150 applied at an application rate of 1.5 gal/sq.
5.	Gardner Asphalt Corp.	APOC #212 Fibrated Aluminum Roof Coating applied at an application rate of 1.5 gal/sq.
6.	Gardner Asphalt Corp.	APOC #400 Sunbrite applied at an application rate of 3 gal./sq.



**EVIDENCE SUBMITTED:**

<u>Test Agency/Identifier</u>	<u>Name</u>	<u>Report</u>	<u>Date</u>	
Factory Mutual Research Corp.	FM 4470	0D3A3.AM	04/04/97	
	FM 4470	2D0A0.AM	12/23/98	
	FM 4470	1D7A4.AM	11/09/98	
	FM 4470	3048520	09/19/13	
	FM 4470	3039046	06/15/10	
Underwriters Laboratories, Inc.	UL 790	R11656	01/11/13	
United States Testing Company	ASTM D 5147	97457-4	06/03/88	
	ASTM D 5147	97-457-2R	12/02/87	
Momentum Technologies, Inc.	ASTM D 4601	AX31G8D	09/05/08	
	ASTM D6164	AX31G8F	06/05/09	
	ASTM D6222	AX31G8G	06/05/09	
	ASTM D 3909/ D 4897	AX31G8C	09/05/08	
Trinity ERD	TAS 114(J)	3504.06.01-1	06/05/01	
	TAS 117 (B)	3503.10.06	10/10/06	
	TAS 117 (B)	O6490.04.07-R1	06/27/07	
	TAS 114 (H)	Letter	04/05/06	
	TAS 114	3533.01.06	01/06/06	
	TAS 114	3521.07.04	07/29/04	
	TAS 117 (B)/ ASTM D 6862	C8500SC.11.07	11/30/07	
	TAS 114	C8370.08.08	08/19/08	
	ASTM Physical Properties	C10080.09.08-R4	03/25/10	
	ASTM D6164/D4798	C31410.01.11-2	01/10/11	
	ASTM D4601	C40050.09.12-1	09/28/12	
	ASTM D1970	C40050.09.12-2	09/28/12	
	ASTM D5147/D4798	C31410.10.10-R1	11/01/12	
	ASTM D5147/D4798	C31410.01.11-1-R1	11/01/12	
	TAS 117 B	C35500.02.11	02/09/11	
	FM 4470/TAS 114	C33980.12.10	12/22/10	
	TAS 117 & TAS 114	C30560.03.10	03/18/10	
	TAS 117 & TAS 114	C30560.06.10	06/10/10	
	FM 4470/TAS 114	C37830.07.12	07/26/12	
	ASTM D1876	C35460.05.11-R1	05/20/15	
	ASTM D1876, TAS 114 (H), TAS 117 (B)	C42110.08.12	08/13/12	
	ASTM D1876, TAS 114 (H), FM 4474	C47320.03.14	03/26/14	
	ASTM D4798	C31410.01.11-2A-R1	02/21/13	
	ASTM D4798	C31410.12.13	12/05/13	
	ASTM D6222	C40050.12.13-R1	12/31/13	
	PRI Construction Materials Technologies LLC	ASTM D6163	CTC-032-02-01	01/22/08
		ASTM D6163	CTC-066-02-01	08/09/11



**EVIDENCE SUBMITTED:**

**Test Agency/Identifier**

**Name**

**Report**

**Date**

ASTM D6222	CTC-070-02-01	08/09/11
ASTM D6164/D4798	CTC-093-02-01	08/09/11
ASTM D2178	CTC-122-02-01	03/13/12
ASTM D2178	CTC-123-02-01	03/13/12
ASTM D4601	CTC-127-02-01	03/13/12
ASTM D6509	CTC-116-02-01	04/04/12
ASTM D6163	CTC-128-02-01	06/11/12
ASTM D6163	CTC-129-02-01	06/11/12
ASTM D6164	CTC-132-02-01	06/11/12
ASTM D6164	CTC-162-02-01	05/09/13
ASTM D6164	CTC-161-02-01	05/09/13
ASTM D6162	CTC-183-02-01	10/02/13
ASTM D6164	CTC-190-02-01	12/02/13



## APPROVED ASSEMBLIES

**Membrane Type:** APP Modified

**Deck Type 4I:** Lightweight Concrete, Insulated

**Deck Description:** Concrecel Cellular Lightweight Concrete, min 400 psi

**System Type A(1):** Anchor sheet mechanically fastened, one or more layer of insulation adhered with approved asphalt.

**Deck:** Structural concrete or 18-22 Ga. ASTM A653, Grade SS80 steel deck shall be secured 6" o.c. to structural supports spaced a maximum of 5 ft on center with  $\frac{5}{8}$ " puddle welds. Steel deck side laps are attached 12" o.c. with Traxx/1 fasteners. Followed by Concrecel Bonding agent applied to the deck at rate 1200 sq. ft/gal using a compressed air sprayer. Rigid insulation panels shall be placed in a minimum  $\frac{1}{4}$ " slurry-coat of insulating concrete and allowed to the cure overnight. The following day the rigid insulation shall be covered with a minimum 2  $\frac{1}{4}$ " topcoat cast of Concrecel. After an additional cure time of 24 hours, Concrecel curing compound was a roller applied at a rate of 300sq. ft/gal.

**All General and System limitations apply.**

**Anchor Sheet:** One ply or more plies of Glasbase Base Sheet, All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20 or Flintlastic Poly SMS Base Sheet fastened to the deck as described below:

**Fastening:** Fasten base sheet to deck with OMG CR Assembled Base Sheet Fasteners spaced at 7" o.c. in the 4" side lap and 7" o.c. in two evenly divided, staggered rows in the center of the sheet.

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
ACFoam-II, FlintBoard ISO, ENRGY 3, ENRGY 3 25 PSI, H-Shield, FlintBoard <sub>H</sub> ISO Minimum 1.5" thick	N/A	N/A
Approved High Density Wood Fiberboard Minimum $\frac{1}{2}$ " thick	N/A	N/A
Approved Perlite Insulation Minimum $\frac{3}{4}$ " thick	N/A	N/A
DensDeck, DensDeck Prime Minimum $\frac{1}{4}$ " thick	N/A	N/A



**(Optional) Top Insulation Layer**

**Insulation Fasteners**  
**(Table 3)**

**Fastener**  
**Density/ft<sup>2</sup>**

Any Insulation listed for Base Layer, above.

N/A

N/A

**Note:** All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

**Base Sheet:** One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Ply Sheet:**  
**(Optional)** One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered or one ply of Flintlastic STA or Flintlastic APP Base T torch adhered.

**Membrane:** Flintlastic GTA, Flintlastic GTA CoolStar, Flintlastic GTA-FR or Flintlastic GTA-FR CoolStar torch adhered to base or ply sheet.

**Surfacing:**  
**(Optional)** Any of the approved surfacing/coating options listed in Table 4.

**Maximum Design Pressure:** -52.5 psf (See General Limitation #7)



**Membrane Type:** SBS Modified  
**Deck Type 4I:** Lightweight Concrete, Insulated  
**Deck Description:** Concrecel Cellular Lightweight Concrete, min 400 psi  
**System Type A(2):** Anchor sheet mechanically fastened, one or more layer of insulation adhered with approved asphalt.  
**Deck:** Structural concrete or 18-22 ga. ASTM A653, Grade SS80 steel deck shall be secured 6" o.c. to structural supports spaced a maximum of 5 ft on center with 5/8" puddle welds. Steel deck side laps are attached 12" o.c. with Traxx/1 fasteners. Followed by Concrecel Bonding agent applied to the deck at rate 1200 sq. ft/gal using a compressed air sprayer. Rigid insulation panels shall be placed in a minimum 1/4" slurry-coat of insulating concrete and allowed to the cure overnight. The following day the rigid insulation shall be covered with a minimum 2 1/4" topcoat cast of Concrecel. After an additional cure time of 24 hours, Concrecel curing compound was a roller applied at a rate of 300sq. ft/gal.

**All General and System limitations apply.**

**Anchor Sheet:** One or more plies of All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20 or Flintlastic Poly SMS Base Sheet fastened to the deck as described below:

**Fastening:** Fasten base sheet to deck with OMG CR Assembled Base Sheet Fasteners spaced at 7" o.c. in the 4" side lap and 7" o.c. in two evenly divided, staggered rows in the center of the sheet.

One or more layers of any of the following insulations:

<b><u>Base Insulation Layer</u></b>	<b><u>Insulation Fasteners (Table 3)</u></b>	<b><u>Fastener Density/ft<sup>2</sup></u></b>
<b>ACFoam-II, FlintBoard ISO, ENRGY 3, ENRGY 3 25 PSI, H-Shield, FlintBoard<sub>H</sub> ISO Minimum 1.5" thick</b>	N/A	N/A
<b>Approved High Density Wood Fiberboard Minimum 1/2" thick</b>	N/A	N/A
<b>Approved Perlite Insulation Minimum 3/4" thick</b>	N/A	N/A
<b>DensDeck, DensDeck Prime Minimum 1/4" thick</b>	N/A	N/A



**(Optional) Top Insulation Layer**

**Insulation Fasteners**  
**(Table 3)**

**Fastener**  
**Density/ft<sup>2</sup>**

Any Insulation listed for Base Layer, above.

N/A

N/A

**Note:** All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

- Base Sheet:** One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Ply Sheet:  
(Optional)** One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheetm Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic Ultra Poly SMS Base Sheet torch applied or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered.
- Membrane:** One or more plies of Flintlastic GMS, Flintlastic GMS CoolStar, Flintlastic Premium GMS, Flintlastic Premium GMS CoolStar, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic FR-P CoolStar, Flintlastic Premium FR-P, Flintlastic Premium FR-P CoolStar, Flintlastic FR Cap 30, Flintlastic FR Cap 30 CoolStar adhered to ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic FR Cap 30 T or Flintlastic FR Cap 30 T CoolStar torch adhered to ply sheet.
- Surfacing:  
(Optional)** Any of the approved surfacing/coating options listed in Table 4.
- Maximum Design  
Pressure:** -52.5 psf (See General Limitation #7)



**Membrane Type:** APP Modified  
**Deck Type 4I:** Lightweight Concrete, Insulated  
**Deck Description:** Min. 200 psi. Mearlcrete or min. 160 psi Elastizel Cellular Lightweight Concrete  
**System Type A(3):** Anchor sheet mechanically fastened, one or more layer of insulation adhered with approved asphalt.  
**Deck:** Structural concrete or min. 22 ga., grade C (33ksi) , type BW slotted steel deck attached to steel supports spaced at a maximum 5 ft. o.c. with 5/8" puddle welds or with 3/8" welding washers spaced maximum 6" o.c. (at each flute). Steel deck side laps are attached 18" o.c. with Traxx/1 fasteners or #10 self-tapping screws. Mearlcrete cast at 40 pcf wet density or Range II Elastizel is applied with an 1/8" slurry coat followed by optional min. 2" thick Star-R-Foam Gripper EPS board or min. 1" thick Apache Corrugated Holey Board or Mearl Corrugated EPS Insulation. A min. 2" thick cap of Mearlcrete or Elastizel is placed over the insulations.

**All General and System limitations apply.**

**Anchor Sheet:** One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet or Yosemite Venting Base Sheet\* mechanically attached to the deck using OMG CR Assembled Base Sheet Fastener, or FM-90 Fasteners spaced 7" o.c. in the 4" side lap and 7" o.c. in two evenly divided, staggered rows in the center of the sheet.  
*\*Only with FM-90*

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
ACFoam-II, FlintBoard ISO, ENRGY 3, ENRGY 3 25 PSI, H-Shield, FlintBoard <sub>H</sub> ISO Minimum 1.5" thick	N/A	N/A
Approved High Density Wood Fiberboard Minimum 1/2" thick	N/A	N/A
Approved Perlite Insulation Minimum 3/4" thick	N/A	N/A
DensDeck, DensDeck Prime Minimum 1/4" thick	N/A	N/A



**(Optional) Top Insulation Layer**

**Insulation Fasteners**  
**(Table 3)**

**Fastener**  
**Density/ft<sup>2</sup>**

Any Insulation listed for Base Layer, above.

N/A

N/A

**Note:** All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

- Base Sheet:** One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Ply Sheet:**  
**(Optional)** One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered or one ply of Flintlastic STA or Flintlastic APP Base T torch adhered.
- Membrane:** Flintlastic GTA, Flintlastic GTA CoolStar, Flintlastic GTA-FR or Flintlastic GTA-FR CoolStar torch adhered to base or ply sheet.
- Surfacing:**  
**(Optional)** Any of the approved surfacing/coating options listed in Table 4.
- Maximum Design Pressure:** -52.5 psf (See General Limitation #7)



**Membrane Type:** SBS Modified  
**Deck Type 4I:** Lightweight Concrete, Insulated  
**Deck Description:** Min. 200 psi. Mearlcrete or min. 160 psi Elastizel Cellular Lightweight Concrete  
**System Type A(4):** Anchor sheet mechanically fastened, one or more layer of insulation adhered with approved asphalt.  
**Deck:** Structural concrete or min. 22 ga., grade C (33ksi) type BW slotted steel deck attached to steel supports spaced at a maximum 5 ft. o.c. with 5/8" puddle welds or with 3/8" welding washers spaced maximum 6" o.c. (at each flute). Steel deck side laps are attached 18" o.c. with Traxx/1 fasteners or #10 self-tapping screws. Mearlcrete cast at 40 pcf wet density or Range II Elastizel is applied with an 1/8" slurry coat followed by optional min. 2" thick Star-R-Foam Gripper EPS board or min. 1" thick Apache Corrugated Holey Board or Mearl Corrugated EPS Insulation. A min. 2" thick cap of Mearlcrete or Elastizel is placed over the insulation.

**All General and System limitations apply.**

**Anchor Sheet:** One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet or Yosemite Venting Base Sheet\* mechanically attached to the deck using OMG CR Assembled Base Sheet Fastener, or FM-90 Fasteners spaced 7" o.c. in the 4" side lap and 7" o.c. in two evenly divided, staggered rows in the center of the sheet.  
*\*Only with FM-90*

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
ACFoam-II, FlintBoard ISO, ENRGY 3, ENRGY 3 25 PSI, H-Shield, FlintBoard <sub>H</sub> ISO Minimum 1.5" thick	N/A	N/A
Approved High Density Wood Fiberboard Minimum 1/2" thick	N/A	N/A
Approved Perlite Insulation Minimum 3/4" thick	N/A	N/A
DensDeck, DensDeck Prime Minimum 1/4" thick	N/A	N/A



**(Optional) Top Insulation Layer**

**Insulation Fasteners**  
**(Table 3)**

**Fastener**  
**Density/ft<sup>2</sup>**

Any Insulation listed for Base Layer, above.

N/A

N/A

**Note:** All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

- Base Sheet:** One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Ply Sheet:**  
**(Optional)** One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic Ultra Poly SMS Base Sheet torch applied or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered.
- Membrane:** One or more plies of Flintlastic GMS, Flintlastic GMS CoolStar, Flintlastic Premium GMS, Flintlastic Premium GMS CoolStar, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic FR-P CoolStar, Flintlastic FR Cap 30, Flintlastic FR Cap 30 CoolStar adhered to ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs/sq. or Flintlastic FR Cap 30 T or Flintlastic FR Cap 30 T CoolStar torch adhered to ply sheet.
- Surfacing:**  
**(Optional)** Any of the approved surfacing/coating options listed in Table 4.s
- Maximum Design Pressure:** -52.5 psf (See General Limitation #7)



**Membrane Type:** SBS Modified  
**Deck Type 4I:** Lightweight Concrete, Insulated  
**Deck Description:** Elastizel Cellular Lightweight Concrete, min 350 psi  
**System Type A(5):** Anchor sheet mechanically fastened, one or more layer of insulation adhered with approved asphalt.

**Deck:** min. 22ga., Grade 33, Type B vented steel deck attached to steel supports spaced maximum 5ft. o.c. with Tek/5 screws spaced 6” o.c.. Steel deck side laps are attached 20” o.c. with Tek/1 screws. Elastizell with Zell-Fibers (47-50 pcf wet cast density) is applied with an 1/8” slurry coat followed by min. 1” thick EPS holey board and a min. 2” thick top coat.

**All General and System limitations apply.**

**Anchor Sheet:** One or more plies of Yosemite Venting Base Sheet mechanically attached to the deck using FM-90 fasteners spaced 7” o.c. in the 4” side lap and 7” o.c. in two evenly divided, staggered rows in the center of the sheet.

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
ACFoam-IV Minimum 1.5” thick	N/A	N/A

**Note: All insulation joints shall be staggered and adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 25 lbs/100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.**

**Base Sheet:** One or more plies of Yosemite Venting Base Sheet spot-mopped with 9-inch diameter spots of ASTM D312, Type IV hot asphalt spaced in an 18 x 18-inch grid or strip-mopped with 9-inch wide ribbons of ASTM D312, Type IV hot asphalt spaced 18-inch o.c.

**Ply Sheet:  
(Optional)** One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 25 lbs./sq.



**Membrane:** One ply of Flintlastic FR Cap 30, Flintlastic FR Cap 30 CoolStar, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic FR-P CoolStar, Flintlastic Premium FR-P or Flintlastic Premium FR-P CoolStar adhered with approved mopping asphalt applied within the EVT range and at a rate of 25 lbs./sq. or one ply of Flintlastic FR Cap 30 T or Flintlastic FR Cap 30 T CoolStar, torch-applied to ply sheet.

**Surfacing:  
(Optional)** Any of the approved surfacing/coating options listed in Table 4.

**Maximum Design  
Pressure:** -52.5 psf (See General Limitation #7)



**Membrane Type:** SBS Modified  
**Deck Type 4I:** Lightweight Concrete, Insulated  
**Deck Description:** Elastizell Cellular Lightweight Concrete, min 390 psi  
**System Type A(6):** One or more layer of insulation adhered with approved adhesive. Membrane fully adhered.  
**Deck:** min. 22ga., Grade 33, Type B vented steel deck attached to steel supports spaced maximum 5ft. o.c. with Tek/5 screws spaced 6" o.c. Steel deck side laps are attached 20" o.c. with Tek/1 screws. Elastizell with Zell-Fibers is applied with an 1/8" slurry coat followed by min. 1" thick EPS holey board and a min. 2" thick top coat.

**All General and System limitations apply.**

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
H-Shield CG, FlintBoard <sub>H</sub> ISO Cold Minimum 1.5" thick	N/A	N/A

**Note: Insulation shall be adhered to the deck with OMG OlyBond 500 adhesive in 3/4" wide ribbons spaced 6-inch o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.**

**Base Sheet:** One or more plies of Glasbase Base Sheet, All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet adhered with Millennium Hurricane Force Membrane Adhesive applied in 1/2" – 3/4" wide ribbons spaced 6-inch o.c.

**Ply Sheet:** None

**Membrane:** One or more plies of Flintlastic FR Cap 30, Flintlastic FR Cap 30 CoolStar, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic FR-P CoolStar, Flintlastic Premium FR-P or Flintlastic Premium FR-P CoolStar adhered to base sheet with Millennium Hurricane Force Membrane Adhesive applied in 1/2" – 3/4" wide ribbons spaced 6-inch o.c.

**Surfacing:  
(Optional)** Any of the approved surfacing/coating options listed in Table 4.

**Maximum Design  
Pressure:** -60 psf (See General Limitation #7)



**Membrane Type:** SBS Modified

**Deck Type 4I:** Lightweight Concrete, Insulated

**Deck Description:** Minimum 350 psi Cellular Lightweight Concrete over steel deck; with a minimum pull out value (withdrawl resistance) of 128 lbf. when tested with 1.8-inch Twin Loc-Nails.

**System Type A(7):** Anchor sheet mechanically fastened, one or more layer of insulation adhered with approved asphalt.

**Deck:** min. 22ga., Grade 33, Type B vented steel deck attached to steel supports spaced maximum 5ft. o.c. with Tek/5 screws spaced 6" o.c. Steel deck side laps are attached 20" o.c. with Tek/1 screws. A minimum 1/8" slurry coat followed by min. 1" thick EPS holey board and a min. 2" thick top coat.

**All General and System limitations apply.**

**Anchor Sheet:** One or more plies of Yosemite Venting Base Sheet, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet mechanically attached to the deck using Twin Loc-Nails spaced 9" o.c. in the 4" side lap and 9" o.c. in two evenly divided, staggered rows in the center of the sheet.

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
ACFoam-II, FlintBoard ISO, ACFoam-IV Minimum 1.5" thick	N/A	N/A

**Note:** All insulation joints shall be staggered and adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 25 lbs/100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

**Base Sheet:** One or more plies of Yosemite Venting Base Sheet strip-mopped with 9-inch wide ribbons of ASTM D312, Type IV hot asphalt spaced 18-inch o.c.

**Ply Sheet:  
(Optional)** One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 25 lbs./sq.



**Membrane:** One ply of Flintlastic FR Cap 30, Flintlastic FR Cap 30 CoolStar, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic FR-P CoolStar, Flintlastic Premium FR-P or Flintlastic Premium FR-P CoolStar adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 25 lbs./sq. or one ply of Flintlastic FR Cap 30 T or Flintlastic FR Cap 30 T CoolStar, torch-applied to ply sheet.

**Surfacing:  
(Optional)** Any of the approved surfacing/coating options listed in Table 4.

**Maximum Design  
Pressure:** -60 psf (See General Limitation #7)



**Membrane Type:** SBS Modified  
**Deck Type 4I:** Lightweight Concrete, Insulated  
**Deck Description:** Elastizell Cellular Lightweight Concrete, min 390 psi  
**System Type A(8):** One or more layer of insulation adhered with approved adhesive. Membrane fully adhered.

**Deck:** min. 22ga., Grade 33, Type B vented steel deck attached to steel supports spaced maximum 5ft. o.c. with Tek/5 screws spaced 6" o.c. Steel deck side laps are attached 20" o.c. with Tek/1 screws. Elastizell with Zell-Fibers is applied with an 1/8" slurry coat followed by min. 1" thick EPS holey board and a min. 2" thick top coat fastened with Flintfast #14 fasteners and Flintfast 3" Round Plates at 1:8 ft<sup>2</sup>

**All General and System limitations apply.**

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
H-Shield CG, FlintBoard <sub>H</sub> ISO Cold Minimum 1.5" thick	N/A	N/A

**Note:** Insulation shall be adhered to the deck with **OMG OlyBond 500** adhesive in 3/4" wide ribbons spaced 6-inch o.c. Please refer to **Roofing Application Standard RAS 117** for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

**Base Sheet:** One or more plies of Glasbase Base Sheet, All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet adhered with Millennium Hurricane Force Membrane Adhesive applied in 1/2" – 3/4" wide ribbons spaced 6-inch o.c.

**Membrane:** One or more plies of Flintlastic FR Cap 30, Flintlastic FR Cap 30 CoolStar, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic FR-P CoolStar, Flintlastic Premium FR-P or Flintlastic Premium FR-P CoolStar adhered to base sheet with Millennium Hurricane Force Membrane Adhesive applied in 1/2" – 3/4" wide ribbons spaced 6-inch o.c.

**Surfacing:  
(Optional)** Any of the approved surfacing/coating options listed in Table 4.

**Maximum Design  
Pressure:** -67.5 psf (See General Limitation #7)



**Membrane Type:** SBS/APP Modified  
**Deck Type 4I:** Lightweight Concrete, Insulated  
**Deck Description:** Mearlcrete Lightweight Insulation Concrete, min. 200 psi  
**System Type A(9):** One or more layer of insulation adhered with approved adhesive  
**Deck:** Structural concrete with a 3” thick cap of Mearlcrete Lightweight Insulation Concrete, 39 lbs/ft<sup>3</sup> wet cast density.

**All General and System limitations apply.**

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners</u>	<u>Fastener Density/ft<sup>2</sup></u>
ACFoam IV Minimum 2.0” thick	N/A	N/A
Multi-Max FA-3, ACFoam II or FlintBoard ISO Minimum 1.5” thick	N/A	N/A
ISO 95+ GL, H-Shield, FlintBoard <sub>H</sub> ISO, H-Shield CG, FlintBoard <sub>H</sub> ISO Cold or ENRGY 3 Minimum 1.0” thick	N/A	N/A
Insulfoam EPS, 1.0 pcf Minimum ¾” thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners</u>	<u>Fastener Density/ft<sup>2</sup></u>
SECUROCK Gypsum-Fiber Roof Board Minimum ¼” thick	N/A	N/A

**Note:** All insulation shall be adhered to the deck with TITSEET Roofing Adhesive (3M Polyurethane Foam Insulation Adhesive CR-20) applied in 1.5” ribbons spaced 12” o.c. Adhesive shall be allowed to sit for approx. 1 minute before insulation is applied. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

**Base Sheet:** One or more layers of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered.  
**Membrane:** One ply of Flintlastic FR Cap 30 T, Flintlastic FR Cap 30 T CoolStar, Flintlastic GTA, Flintlastic GTA CoolStar, Flintlastic GTA-FR or Flintlastic GTA-FR CoolStar torch adhered.  
**Surfacing: (Optional)** Any of the approved surfacing/coating options listed in Table 4.  
**Maximum Design Pressure:** -75.0 psf (See General Limitation #9)



**Membrane Type:** SBS/APP Modified  
**Deck Type 4I:** Lightweight Concrete, Insulated  
**Deck Description:** Elastizell Lightweight Insulation Concrete, min. 200 psi  
**System Type A(10):** One or more layer of insulation adhered with approved adhesive  
**Deck:** Structural concrete with a 3” thick cap of Range II Elastizell Lightweight Insulation Concrete, 44.4 lbs/ft<sup>3</sup> wet cast density

**All General and System limitations apply.**

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners</u>	<u>Fastener Density/ft<sup>2</sup></u>
<b>ACFoam IV</b> Minimum 2.0” thick	N/A	N/A
<b>Multi-Max FA-3, ACFoam II or FlintBoard ISO</b> Minimum 1.5” thick	N/A	N/A
<b>ISO 95+ GL, H-Shield, FlintBoard<sub>H</sub> ISO, H-Shield CG, FlintBoard<sub>H</sub> ISO Cold or ENRGY 3</b> Minimum 1.0” thick	N/A	N/A
<b>Insulfoam EPS, 1.0 pcf</b> Minimum ¾” thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners</u>	<u>Fastener Density/ft<sup>2</sup></u>
<b>SECUROCK Gypsum-Fiber Roof Board</b> Minimum ¼” thick	N/A	N/A

**Note:** All insulation shall be adhered to the deck with TITSEET Roofing Adhesive (3M Polyurethane Foam Insulation Adhesive CR-20) applied in 1.5” ribbons spaced 12” o.c. Adhesive shall be allowed to sit for approx. 1 minute before insulation is applied. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

**Base Sheet:** One or more layers of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered.  
**Membrane:** One ply of Flintlastic FR Cap 30 T, Flintlastic FR Cap 30 T CoolStar, Flintlastic GTA, Flintlastic GTA CoolStar, Flintlastic GTA-FR or Flintlastic GTA-FR CoolStar torch adhered.  
**Surfacing: (Optional)** Any of the approved surfacing/coating options listed in Table 4.  
**Maximum Design Pressure:** -117.5 psf (See General Limitation #9)



**Membrane Type:** SBS Modified  
**Deck Type 4:** Lightweight Concrete, Non-insulated  
**Deck Description:** Elastizell Cellular Lightweight Concrete, min 390 psi  
**System Type E(1):** Base sheet mechanically fastened.

**Deck:** min. 22ga., Grade 33, Type B vented steel deck attached to steel supports spaced maximum 5ft. o.c. with Tek/5 screws spaced 6" o.c. Steel deck side laps are attached 20" o.c. with Tek/1 screws. Elastizell with Zell-Fibers is applied with an 1/8" slurry coat followed by min. 1" thick EPS holey board and a min. 2" thick top coat.

**All General and System limitations apply.**

**Base Sheet:** One or more plies of Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Poly SMS Base Sheet or Yosemite Venting Base Sheet mechanically attached to the deck using FM-90 Fasteners spaced 7" o.c. in the 4" side lap and 7" o.c. in two evenly divided, staggered rows in the center of the sheet.

**Membrane:** One or more plies of Flintlastic FR Cap 30, Flintlastic FR Cap 30 CoolStar, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic FR-P CoolStar, Flintlastic Premium FR-P or Flintlastic Premium FR-P CoolStar adhered to base sheet with Millennium Hurricane Force Membrane Adhesive applied in 1/2" – 3/4" wide ribbons spaced 6-inch o.c.

**Surfacing:  
(Optional)** Any of the approved surfacing/coating options listed in Table 4.

**Maximum Design  
Pressure:** -52.5 psf (See General Limitation #7)



**Membrane Type:** APP Modified  
**Deck Type 4:** Lightweight Concrete, Non-insulated  
**Deck Description:** Concrecel Cellular Lightweight Concrete, min 400 psi  
**System Type E(2):** Base sheet mechanically fastened

**Deck:** Structural concrete or 18-22 ga ASTM A653, Grade SS80 steel deck shall be secured 6" o.c. to structural supports spaced a maximum of 5 ft on center with 5/8" puddle welds. Steel deck side laps are attached 12" o.c. with Traxx/1 fasteners. Followed by Concrecel Bonding agent applied to the deck at rate 1200 sq. ft/gal using a compressed air sprayer. Rigid insulation panels shall be placed in a minimum 1/4" slurry-coat of insulating concrete and allowed to cure overnight. The following day the rigid insulation shall be covered with a minimum 2 1/4" topcoat cast of Concrecel. After an additional cure time of 24 hours, Concrecel Curing Compound was roller applied at a rate of 300-sq. ft/gal.

**All General and System limitations apply.**

**Base Sheet:** One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20 or Flintlastic Poly SMS Base Sheet fastened to the deck as described below:

**Fastening:** Fasten base sheet to deck with OMG CR Assembled Base Sheet Fasteners spaced 7" o.c. in the 4" side lap and 7" o.c. in two evenly divided, staggered rows in the center of the sheet.

**Ply Sheet:  
(Optional)** One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered or one ply of Flintlastic STA or Flintlastic APP Base T torch adhered.

**Membrane:** Flintlastic GTA, Flintlastic GTA CoolStar, Flintlastic GTA-FR or Flintlastic GTA-FR CoolStar torch adhered to base or ply sheet.

**Surfacing:  
(Optional)** Any of the approved surfacing/coating options listed in Table 4.

**Maximum Design  
Pressure:** -52.5 psf (See General Limitation #7)



**Membrane Type:** SBS Modified  
**Deck Type 4:** Lightweight Concrete, Non-insulated  
**Deck Description:** Concrecel Cellular Lightweight Concrete, min 400 psi  
**System Type E(3):** Base sheet mechanically fastened

**Deck:** Structural concrete or 18-22 ga ASTM A653, Grade SS80 steel deck shall be secured 6" o.c. to structural supports spaced a maximum of 5 ft on center with 5/8" puddle welds. Steel deck side laps are attached 12" o.c. with Traxx/1 fasteners. Followed by Concrecel Bonding agent applied to the deck at rate 1200 sq. ft/gal using a compressed air sprayer. Rigid insulation panels shall be placed in a minimum 1/4" slurry-coat of insulating concrete and allowed to cure overnight. The following day the rigid insulation shall be covered with a minimum 2 1/4" topcoat cast of Concrecel. After an additional cure time of 24 hours, Concrecel Curing Compound was roller applied at a rate of 300-sq. ft/gal.

**All General and System limitations apply.**

**Base Sheet:** One or more plies of Glasbase Base Sheet, All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20 or Flintlastic Poly SMS Base Sheet fastened to the deck as described below:

**Fastening:** Fasten base sheet to the deck with OMG CR Assembled Base Sheet Fasteners spaced 7" o.c. in the 4" side lap and 7" o.c. in two evenly divided, staggered rows in the center of the sheet.

**Ply Sheet:  
(Optional)** One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic Ultra Poly SMS Base Sheet torch applied. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered.

**Membrane:** One or more plies of Flintlastic GMS, Flintlastic GMS CoolStar, Flintlastic Premium GMS, Flintlastic Premium GMS CoolStar, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic FR-P CoolStar, Flintlastic Premium FR-P, Flintlastic Premium FR-P CoolStar, Flintlastic FR Cap 30, Flintlastic FR Cap 30 CoolStar adhered to ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic FR Cap 30 T or Flintlastic FR Cap 30 T CoolStar torch adhered to ply sheet.

**Surfacing:  
(Optional)** Any of the approved surfacing/coating options listed in Table 4.

**Maximum Design  
Pressure:** -52.5 psf (See General Limitation #7)



**Membrane Type:** APP Modified

**Deck Type 4:** Lightweight Concrete, Non-insulated

**Deck Description:** Min. 200 psi. Mearlcrete or min. 160 psi Elastizell Cellular Lightweight Concrete

**System Type E(4):** Base sheet mechanically fastened

**Deck:** Structural concrete or min. 22 ga., type BW slotted steel deck attached to steel supports spaced maximum 5ft. o.c. (at each flute). Steel deck side laps are attached 18" o.c. with Traxx/1 fasteners or # 10 self-tapping screws. Mearlcrete cast at 40 pcf wet density or Range II Elastizell is applied with an 1/8" slurry coat followed by optional min. 2" thick Star-R-Foam Gripper EPS board or min. 1" thick Apache Corrugated Holey Board or Mearl Corrugated EPS Insulation. A min. 2" thick cap of Mearlcrete or Elastizell is placed over the insulation.

**All General and System limitations apply.**

**Base Sheet:** One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet or Yosemite Venting Base Sheet\* mechanically attached to the deck using OMG CR Assembled Base Sheet Fasteners or FM-90 Fasteners space 7" o.c. in the 4" side lap and 7" o.c. in two evenly divided, staggered rows in the center of the sheet.  
\*Only with FM-90

**Ply Sheet: (Optional)** One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered or one ply of Flintlastic STA or Flintlastic APP Base T torch adhered.

**Membrane:** Flintlastic GTA, Flintlastic GTA CoolStar, Flintlastic GTA-FR or Flintlastic GTA-FR CoolStar torch adhered to base or ply sheet.

**Surfacing: (Optional)** Any of the approved surfacing/coating options listed in Table 4.

**Maximum Design Pressure:** -52.5 psf (See General Limitation #7)



**Membrane Type:** SBS Modified

**Deck Type 4:** Lightweight Concrete, Non-insulated

**Deck Description:** Min. 200 psi. Mearlcrete or min. 160 psi Elastizell Cellular Lightweight Concrete

**System Type E(5):** Base sheet mechanically fastened.

**Deck:** Structural concrete or min. 22ga., type BW slotted steel deck attached to steel supports spaced maximum 5ft. o.c. with 5/8" puddle welds or with 3/8" welding washers spaced maximum 6" o.c. (at each flute). Steel deck side laps are attached 18" o.c. with Traxx/I fasteners or #10 self-tapping screws. Mearlcrete cast at 40 pcf wet density or Range II Elastizell is applied with an 1/8" slurry coat followed by optional min. 2" thick Star-R-Foam Gripper EPS board or min. 1" thick Apache Corrugated Holey Board or Mearl Corrugated EPS Insulation. A min. 2" thick cap of Mearlcrete or Elastizell is placed over the insulation

**All General and System limitations apply.**

**Base Sheet:** One or more plies of All weather/Empire Base Sheet, Glasbase Base Sheet or Yosemite Venting Base Sheet\* mechanically attached to the deck using OMG CR Assembled Base Sheet Fasteners, or FM-90 Fasteners spaced 7" o.c. in the 4" side lap and 7" o.c. in two evenly divided, staggered rows in the center of the sheet.  
*\*Only with FM-90*

**Ply Sheet: (Optional)** One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type V adhered in a full mopping of approved asphalt applied within the EVT range at a rate of 20-40lbs./sq. or one ply of Flintlastic Ultra Poly SMS Base Sheet torch applied or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered.

**Membrane:** One or more plies Flintlastic GMS, Flintlastic GMS CoolStar, Flintlastic Premium GMS, Flintlastic Premium GMS CoolStar, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic FR-P CoolStar, Flintlastic Premium FR-P, Flintlastic Premium FR-P CoolStar, Flintlastic FR Cap 30, Flintlastic FR Cap 30 CoolStar adhered to ply sheet with approved mopping of asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or Flintlastic FR Cap 30 T or Flintlastic FR Cap 30 T CoolStar torch adhered to ply sheet.

**Surfacing: (Optional)** Any of the approved surfacing/coating options listed in Table 4.

**Maximum Design Pressure:** -52.5 psf (See General Limitation #7)



**Membrane Type:** SBS Modified  
**Deck Type 4:** Lightweight Concrete, Non-insulated  
**Deck Description:** Elastizell Cellular Lightweight Concrete, min. 390 psi.  
**System Type E(6):** Base sheet mechanically fastened.  
**Deck:** Structural concrete followed by Elastizell with Zell-Fibers is applied with an 1/8" slurry coat followed by min. 1" thick EPS holey board and a min. 2" thick top coat.

**All General and System limitations apply.**

**Base Sheet:** One or more plies of Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Poly SMS Base Sheet or Yosemite Venting Base Sheet mechanically attached to the deck using FM-90 Fasteners spaced 7" o.c. in the 4" side lap and 7" o.c. in two evenly divided, staggered rows in the center of the sheet.

**Membrane:** One or more plies Flintlastic FR Cap 30, Flintlastic FR Cap 30 CoolStar, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic FR-P CoolStar, Flintlastic Premium FR-P or Flintlastic Premium FR-P CoolStar adhered to base sheet with Millennium Hurricane Force Membrane Adhesive applied in 1/2" – 3/4" wide ribbons spaced 6-inch o.c.

**Maximum Design Pressure:** -60 psf (See General Limitation #7)



**Membrane Type:** APP Modified  
**Deck Type 4:** Lightweight Concrete, Non-insulated  
**Deck Description:** Strong Seal Roof Fill Lightweight  
**System Type E(7):** Base sheet mechanically fastened.

**Deck:** Structural concrete or min. 22ga. Steel, galvanized, Grade 33, type B 0.75% slotted steel deck welded 6” o.c. to steel supported spaced 5 ft.o.c. Steel deck side laps are attached 20”o.c.with Traxx/1 fasteners. Steel is coated with concrete bonding agent prior to application of LWC. Strong Seal Roof Fill (65 pcf wet density for a target 300-350 psi compressive strength) preblended cementitious lightweight concrete applied to steel deck flutes to a thickness of ¼” above top flute min.2” thick Apache Holey Board, pressed into the slurry coat. The slurry and EPS are allowed to sit approximately 24 hours prior to application of the topcoat. The EPS insulation is covered with a 3” thick application of the Strong Seal Roof Fill. Roof System installation commences when the top surface becomes walkable (2-3days).

**All General and System limitations apply.**

**Base Sheet:** Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Yosemite Venting Base Sheet fastened to the deck as described below:

**Fastening:** Fasten base sheet to deck with FM-90 Fasteners spaced 7” o.c. in a 4” lap and 10” o.c. in two staggered rows in the field of the sheet.

**Ply Sheet:  
(Optional)** One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply Sheet Type IV or Flintglas Premium Ply Type VI adhered to the base sheet in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered or one ply of Flintlastic STA or Flintlastic APP Base T torch adhered.

**Membrane:** Flintlastic GTA, Flintlastic GTA CoolStar, Flintlastic GTA-FR or Flintlastic GTA-FR CoolStar torch adhered to base o ply sheet.

**Surfacing:  
(Optional)** Any of the approved surfacing/coating options listed in Table 4.

**Maximum Design  
Pressure:** -67.5 psf (See General Limitation #7)



**Membrane Type:** SBS Modified  
**Deck Type 4:** Lightweight Concrete, Non-insulated  
**Deck Description:** Strong Seal Roof Fill Lightweight Concrete  
**System Type E(8):** Base sheet mechanically fastened.

**Deck:** Structural concrete or min. 22ga. Steel, galvanized, Grade 33, type B 0.75% slotted steel deck welded 6” o.c. to steel supported spaced 5 ft.o.c. Steel deck side laps are attached 20”o.c.with Traxx/1 fasteners. Steel is coated with concrete bonding agent prior to application of LWC. Strong Seal Roof Fill (65 pcf wet density for a target 300-350 psi compressive strength) preblended cementitious lightweight concrete applied to steel deck flutes to a thickness of ¼” above top flute min.2” thick Apache Holey Board, pressed into the slurry coat. The slurry and EPS are allowed to sit approximately 24 hours prior to application of the top coat. The EPS insulation is covered with a 3” thick application of the Strong Seal Roof Fill. Roof System installation commences when the top surface becomes walkable (2-3days).

**All General and System limitations apply.**

**Base Sheet:** Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Yosemite Venting Base Sheet fastened to the deck as described below:

**Fastening:** Fasten base sheet to deck with FM-90 Fasteners spaced 7” o.c. in a 4” lap and 10” o.c. in two staggered rows in the field of the sheet

**Ply Sheet: (Optional)** One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply Sheet Type IV or Flintglas Premium Ply Type VI adhered to the base sheet in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic Ultra Poly SMS Base Sheet torch applied or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered.

**Membrane:** One or more plies of Flintlastic GMS, Flintlastic GMS CoolStar, Flintlastic Premium GMS, Flintlastic Premium GMS CoolStar, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic FR-P CoolStar, Flintlastic Premium FR-P, Flintlastic Premium FR-P CoolStar, Flintlastic FR Cap 30, Flintlastic FR Cap 30 CoolStar adhered to ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic FR Cap 30 T or Flintlastic FR Cap 30 T CoolStar torch adhered to ply sheet.

**Surfacing: (Optional)** Any of the approved surfacing/coating options listed in Table 4.

**Maximum Design Pressure:** -67.5 psf (See General Limitation #7)



**LIGHTWEIGHT INSULATING CONCRETE SYSTEM LIMITATIONS:**

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117, calculations shall be signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8” puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.
3. For systems where specific lightweight insulating concrete is not referenced, the minimum design mix shall be a minimum of 300 psi.



## GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.

**Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**

5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

## END OF THIS ACCEPTANCE

