



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

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION

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www.miamidade.gov/economy

CertainTeed Corporation
20 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 Conventional Built-Up-Roof System over 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 renews NOA No. 16-0322.23 and consists of pages 1 through 23.
The submitted documentation was reviewed by Alex Tigera.



NOA No.: 17-1003.13
Expiration Date: 05/19/23
Approval Date: 04/26/18
Page 1 of 23

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Built-Up Roofing
Material:	Fiberglass
Deck Type:	Concrete
Maximum Design Pressure:	-355 psf

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
Black Diamond™ Base Sheet	36" x 68'7"; Roll weight: 78 lbs. (2 squares)	ASTM D 1970	Self-adhering fiberglass reinforced modified bitumen base sheet.
Flintlastic Ultra Glass SA	39 3/8" x 33'11"	ASTM D 1970	Self-adhering, fiberglass reinforced, SBS modified bitumen base/ply sheet.
Flintglas Ply 4	36" x 164'7"; Roll weight: 40/55 lbs. (5 squares)	ASTM D 2178 Type IV UL Type G1	Fiberglass, asphalt impregnated ply sheet.
Flintglas Premium Ply 6	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.
Flintglas® MS Cap CoolStar	36" X 32'10"; Roll Weight: 78 lbs. (1 square)	ASTM D 3909 UL Type G3	Asphalt impregnated and coated inorganic glass fiber surfaced with mineral granules used as the top ply in conventional built-up roof membranes. Covered with reflective CoolStar Coating.
Flintglas® MS Cap Sheet	36" X 32'10"; Roll Weight: 78 lbs. (1 square)	ASTM D 3909 UL Type G3	Asphalt impregnated and coated inorganic glass fiber surfaced with mineral granules used as the top ply in conventional built-up roof membranes.
Yosemite® Venting Base Sheet	39 3/8" x 32'10"	ASTM D 3909 ASTM D 4897 UL Type G3	Mineral surfaced fiberglass reinforced buffer sheet.
All Weather/Empire Base Sheet	36" x 65'10"; Roll weight: 86 lbs. (2 squares)	ASTM D 4601 Type II	SBS modified, fiberglass reinforced base/ply sheet.
Flexiglas Base Sheet	36" x 98'9"; Roll weight: 90 lbs. (3 squares)	ASTM D 4601 Type II	SBS modified, fiberglass reinforced base/ply sheet.
Flintlastic Poly SMS Base Sheet	39 3/8" x 64'4"; Roll weight: 90 lbs. (2 squares)	ASTM D 4601 Type II	SBS modified, polyester reinforced base/ply sheet.



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>
Glasbase Base Sheet	36" x 98'9"; Roll weight: 69 lbs. (3 squares)	ASTM D 4601 Type II	Asphalt coated, fiberglass base/ply sheet.
Flintlastic Base 20	36" x 98'9"; Roll weight: 90 lbs. (3 squares)	ASTM D 6163 Grade S Type I	SBS modified, fiberglass reinforced base/ply sheet.
Flintlastic Ultra Poly SMS Base Sheet	39 3/8" x 32'10"	ASTM D6164 Grade S Type I	SBS modified, polyester reinforced base/ply sheet.

APPROVED INSULATIONS:

TABLE 2

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
FlintBoard ISO	Polyisocyanurate foam insulation	CertainTeed Corp.
FlintBoard _H ISO	Polyisocyanurate foam insulation	CertainTeed Corp.
ACFoam-II	Polyisocyanurate foam insulation	Atlas Roofing Corporation
ISO 95+ GL	Polyisocyanurate foam insulation	Firestone Building Products Company, LLC
H-Shield	Polyisocyanurate foam insulation	Hunter Panels, LLC
DensDeck, DensDeck Prime	Water resistant gypsum board	Georgia Pacific Gypsum LLC
ENRGY 3, ENRGY 3 25 PSI	Polyisocyanurate foam insulation	Johns Manville Corp.
Ultra-Max, Multi-Max FA-3	Polyisocyanurate roof insulation	RMax Operating, LLC.
Fesco Board	Expanded perlite and mineral fiber board	Johns Manville Corp.
Structodek High Density Fiberboard Roof Insulation	High Density Wood Fiber insulation board.	Blue Ridge Fiberboard, Inc.



APPROVED FASTENERS/ADHESIVES:

TABLE 3

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
1.	Dekfast DF-#14-PH3 & Deckfast DF-#15 PH3	Insulation fastener for wood, steel and concrete decks	Various	SFS Group USA
2.	Dekfast PLT-H-2-7/8	Galvalume AZ50 steel plate	2 7/8" x 3 1/4"	SFS Group USA
3.	Dekfast PLT-P-R-3	Polypropylene plate	3" x 3 1/4"	SFS Group USA
4.	#14 Roofgrip	Insulation fastener for concrete, steel or wood decks.	Various	OMG, Inc.
5.	3 in. Ribbed Galvalume Plate	Galvalume stress plate.	3" round	OMG, Inc.
6.	AccuTrac Plate	Galvalume stress plate.	3" square	OMG, Inc.
7.	CD-10	Insulation fastener for concrete decks.	Various	OMG, Inc.
8.	Fluted Nail	Insulation fastener	Various	OMG, Inc.
9.	OMG Plastic Plate	Polypropylene plastic plate	3" round	OMG, Inc.
10.	3 in. Round Metal Plate	Galvalume AZ50 steel plate	3" round	OMG, Inc.
11.	Trufast #14 HD Fastener	Insulation fastener for concrete decks	Various	Altenloh, Brinck & Co. U.S., Inc.
12.	Trufast 3" Metal Insulation Plate	Galvalume AZ50 steel plate	3" round	Altenloh, Brinck & Co. U.S., Inc.
13.	FlintFast #14	Insulation fastener for concrete decks	Various	CertainTeed Corp.
14.	FlintFast 3" Insulation Plate	Galvalume AZ50 steel plate	3" round	CertainTeed Corp.



EVIDENCE SUBMITTED:

<u>Test Agency/Identifier</u>	<u>Name</u>	<u>Report</u>	<u>Date</u>	
Trinity ERD	TAS 117 (B)	3503.10.06	10/10/06	
	TAS 117 (B)	O6490.04.07-R1	06/27/07	
	TAS 114	3521.07.04	10/26/07	
	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	
	TAS 117 (B)	C35500.02.11	02/09/11	
	FM 4470 / TAS 114	3513.08.02-R1	03/17/11	
	ASTM D4601	C40050.09.12-1	09/28/12	
	ASTM D1970	C40050.09.12-2	09/28/12	
	ASTM D3909	C44200.03.13	03/22/13	
	ASTM D2178	C47250.03.14	03/26/14	
	ASTM D1876, / TAS 114, / FM 4474	C45620.03.14	03/27/14	
	ASTM D1876	C35460.05.11-R1	05/20/15	
	ASTM D3909	CTR-SC11145.09.16-2A	09/19/16	
	ASTM D3909	CTR-SC11145.09.16-2B	09/19/16	
	ASTM D4601	CTR-SC11145.09.16-3A	09/19/16	
	ASTM D4897	CTR-SC11145.09.16-4	09/19/16	
	Factory Mutual Research Corp.	FMRC 4470	J.I. #3Y8A1.AM	03/23/96
		FMRC 4454	J.I. 0D3A3.AM	04/04/97
FMRC 4470		J.I. 2D0A0.AM	12/23/98	
FMRC 4470		J.I. 1D7A4.AM	11/09/98	
Underwriters Laboratories, Inc.	UL 790	R11656	01/11/13	
PRI Construction Materials Technologies LLC	ASTM D6163	CTC-066-02-01	08/09/11	
	ASTM D2178	CTC-123-02-01	03/13/12	
	ASTM D4601	CTC-124-02-01	03/13/12	
	ASTM D4601	CTC-127-02-01	03/13/12	
	ASTM D6164	CTC-190-02-01	12/02/13	
	ASTM D1970	CTC-199-02-01	01/22/14	



APPROVED ASSEMBLIES

Membrane Type: BUR
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(1): Anchor sheet (optional), base sheet and/or insulation adhered with approved asphalt

All General and System Limitations apply.

Anchor Sheet: (Optional) One ply of All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20 or Glasbase Base Sheet in a spot mopping of approved asphalt, 12" diameter circles, 24" o.c. at a rate of 12 lbs./sq. (See General Limitation #4)

One or more layers of any of the following insulations:

<u>Insulation Layer</u>	<u>Insulation Fasteners</u> <u>Table 3</u>	<u>Fastener</u> <u>Density/ft²</u>
FlintBoard ISO, FlintBoard_H ISO, AC Foam-II, ENRGY 3, Ultra-Max, H-Shield Minimum 1" thick	N/A	N/A
Structodek High Density Fiberboard Roof Insulation Minimum ½" thick	N/A	N/A
Fesco Board Minimum ¾" thick	N/A	N/A
DensDeck, DensDeck Prime Minimum ¼" thick	N/A	N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. 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 ft². 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: (Optional) Install one ply of All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or Glasbase Base Sheet directly over the top layer of insulation. Adhere with any approved mopping asphalt at an application rate of 20-35 lbs./sq.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or two or more plies of Flintglas Ply Sheet 4 or Flintglas Premium Ply 6 adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.



**Cap Sheet:
(Optional)**

One ply of Flintglas MS Cap Sheet or Flintglas MS Cap CoolStar adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.

Surfacing:

(Required if no cap sheet is used) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. A two part coating consisting of a base coat of APOC #300 Non-Fibered Emulsion at rate of 3 gal./sq.; surfaced with 1 gal./sq. APOC#212 Fibered Aluminum Roof Coating.

**Maximum Design
Pressure:**

-87.5 psf (See General Limitations # 9)

Membrane Type: BUR
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(2): Insulation adhered to deck with approved asphalt

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/ft²</u>
FlintBoard ISO, FlintBoard _H ISO, AC Foam-II, ENRGY 3, Ultra-Max, H-Shield Minimum 1" thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners Table 3</u>	<u>Fastener Density/ft²</u>
Structodek High Density Fiberboard Roof Insulation Minimum 1/2" thick	N/A	N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. 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 ft². 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 4 or Flintglas Premium Ply 6 adhered to the composite insulation with approved mopping asphalt applied within the EVT range and at a rate of 20-35 lbs./sq.

Ply 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 or one or more plies of Flintglas Ply Sheet 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-35 lbs./sq.

**Cap Sheet:
(Optional)** One ply of Flintglas MS Cap Sheet or Flintglas MS Cap CoolStar adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.



Surfacing:

(Required if no cap sheet is used) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. A two part coating consisting of a base coat of APOC #300 Non-Fibered Emulsion at rate of 3 gal./sq.; surfaced with 1 gal./sq. APOC#212 Fibered Aluminum Roof Coating.

Maximum Design Pressure:

-227.5 psf (See General Limitations #9)



Membrane Type: BUR
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(3): Insulation adhered to deck with approved asphalt

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/ft²</u>
FlintBoard ISO, FlintBoard _H ISO, AC Foam-II, ENRGY 3, Ultra-Max, H-Shield Minimum 1" thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners Table 3</u>	<u>Fastener Density/ft²</u>
DensDeck, DensDeck Prime Minimum 1/4" thick	N/A	N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. 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 ft². 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 4 or Flintglas Premium Ply 6 adhered to the composite insulation with approved mopping asphalt applied within the EVT range and at a rate of 20-35 lbs./sq.

Ply 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 or one or more plies of Flintglas Ply Sheet 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-35 lbs./sq.

**Cap Sheet:
(Optional)** One ply of Flintglas MS Cap Sheet or Flintglas MS Cap CoolStar adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.



Surfacing:

(Required if no cap sheet is used) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. A two part coating consisting of a base coat of APOC #300 Non-Fibered Emulsion at rate of 3 gal./sq.; surfaced with 1 gal./sq. APOC#212 Fibered Aluminum Roof Coating.

Maximum Design Pressure:

-240 psf (See General Limitations #9)



Membrane Type: BUR
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(4): Insulation adhered to deck with approved asphalt

All General and System Limitations apply.

One or more layers of any of the following insulations:

<u>Insulation Layer</u>	<u>Insulation Fasteners Table 3</u>	<u>Fastener Density/ft²</u>
FlintBoard _H ISO, ENRGY-3, H-Shield Minimum 1.5" thick	N/A	N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. 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 ft². 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, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or Glasbase Base Sheet adhered to the fiberglass insulation with approved mopping asphalt applied within the EVT range and at a rate of 20-35 lbs./sq.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or two or more plies of Flintglas Ply Sheet 4 or Flintglas Premium Ply 6 adhered to the base sheet with approved mopping asphalt applied within the EVT range and at a rate of 20-35 lbs./sq.

**Cap Sheet:
(Optional)** One ply of Flintglas MS Cap Sheet or Flintglas MS Cap CoolStar adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.

Surfacing: *(Required if no cap sheet is used)* Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. A two part coating consisting of a base coat of APOC #300 Non-Fibered Emulsion at rate of 3 gal./sq.; surfaced with 1 gal./sq. APOC#212 Fibered Aluminum Roof Coating.

**Maximum Design
Pressure:** -355 psf (See General Limitations #9)



Membrane Type: BUR
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type B(1): Base layer of insulation mechanically fastened, optional top layer adhered with approved asphalt

All General and System Limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners Table 3	Fastener Density/ft²
FlintBoard_H ISO, ENRGY 3, H-Shield Minimum 1.4" thick	1 4, 7, 8	1:3 ft² 1:4 ft²
ISO 95+ GL Minimum 1.4" thick	1, 11, 13 4, 7, 8	1:3 ft² 1:4 ft²
Ultra-Max Minimum 1.5" thick	1, 4, 7, 8	1:2.9 ft²
Fesco Board Minimum ¾" thick	1, 4, 11, 13	1:2 ft²
Structodek High Density Fiberboard Roof Insulation Minimum ½" thick	1, 4, 11, 13	1:2 ft²

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Top Insulation Layer (Optional)	Insulation Fasteners Table 3	Fastener Density/ft²
Any of the insulations listed for Base Layer, above.		
DensDeck, DensDeck Prime Minimum ¼" thick	N/A	N/A

Note: Optional top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.



- Base Sheet:
(Optional)** Install one ply of All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or Glasbase Base Sheet directly over the top layer of insulation. Adhere with any approved mopping asphalt at an application rate of 20-35 lbs./sq. (See General Limitation #4)
- Ply Sheet:** One ply of All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or two or more plies of Flintglas Ply Sheet 4 or Flintglas Premium Ply 6 adhered to the base sheet with approved mopping asphalt applied within the EVT range and at a rate of 20-35 lbs./sq.
- Cap Sheet:
(Optional)** One ply of Flintglas MS Cap Sheet or Flintglas MS Cap CoolStar adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.
- Surfacing:** *(Required if no cap sheet is used)* Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:
1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
 2. A two part coating consisting of a base coat of APOC #300 Non-Fibered Emulsion at rate of 3 gal./sq.; surfaced with 1 gal./sq. APOC#212 Fibered Aluminum Roof Coating.
- Maximum Design Pressure:** -52.5 psf (See General Limitations #9)



Membrane Type: BUR
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type B(2): Base layer of insulation mechanically fastened, optional top layer adhered with approved asphalt

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>Table 3</u>	<u>Fastener</u> <u>Density/ft²</u>
FlintBoard ISO, FlintBoard _H ISO, ENRGY 3, AC Foam-II, Multi-Max FA-3, H-Shield Minimum 1.5" thick	1, 4, 11, 13	1:1.33 ft ²

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

<u>Top Insulation Layer</u>	<u>Insulation Fasteners</u> <u>Table 3</u>	<u>Fastener</u> <u>Density/ft²</u>
Fesco Board Minimum 3/4" thick	N/A	N/A
Structodek High Density Fiberboard Roof Insulation Minimum 1/2" thick	N/A	N/A

Note: Top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: (Optional) Install one ply of All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or Glasbase Base Sheet directly over the top layer of insulation. Adhere with any approved mopping asphalt at an application rate of 20-35 lbs./sq.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or two or more plies of Flintglas Ply Sheet 4 or Flintglas Premium Ply 6 adhered to the base sheet with approved mopping asphalt applied within the EVT range and at a rate of 20-35 lbs./sq.

Cap Sheet: (Optional) One ply of Flintglas MS Cap Sheet or Flintglas MS Cap CoolStar adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.



Surfacing:

(Required if no cap sheet is used) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. A two part coating consisting of a base coat of APOC #300 Non-Fibered Emulsion at rate of 3 gal./sq.; surfaced with 1 gal./sq. APOC#212 Fibered Aluminum Roof Coating.

Maximum Design Pressure:

-52.5 psf (For Fesco Board) (See General Limitation #7)

-67.5 psf (For Structodek High Density Fiberboard Roof Insulation) (See General Limitation #7)



Membrane Type: BUR
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type C(1): All layers of insulation simultaneously fastened

All General and System Limitations apply.

One or more layers of any of the following insulations:

<u>Base Insulation Layer (Optional)</u>	<u>Insulation Fasteners</u> <u>Table 3</u>	<u>Fastener</u> <u>Density/ft²</u>
Ultra-Max Minimum 1” thick	N/A	N/A
FlintBoard ISO, ACFoam-II Minimum 1.3” thick	N/A	N/A
FlintBoard _H ISO, ENRGY 3, H-Shield Minimum 1.4” thick	N/A	N/A
Structodek High Density Fiberboard Roof Insulation Minimum ½” thick	N/A	N/A
Fesco Board Minimum ¾” thick	N/A	N/A

Note: All layers shall be simultaneously attached; See top layer below for fasteners and density.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners</u> <u>Table 3</u>	<u>Fastener</u> <u>Density/ft²</u>
ENRGY 3, H-Shield Minimum 1.4” thick	1 4, 7, 8	1:3 ft ² 1:4 ft ²
ISO 95+ GL Minimum 1.4” thick	2 4, 7, 8	1:3 ft ² 1:4 ft ²
Ultra-Max Minimum 1.5” thick	1, 4, 7, 8, 11 or 13	1:2.9 ft ²
Fesco Board Minimum ¾” thick	1, 4, 11 or 13	1:2 ft ²
Structodek High Density Fiberboard Roof Insulation Minimum ½” thick	1, 4, 11 or 13	1:2 ft ²



Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Base Sheet:
(Optional)** Install one ply of All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or Glasbase Base Sheet directly over the top layer of insulation. Adhere with any approved mopping asphalt at an application rate of 20-35 lbs./sq. (See General Limitation #4)

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or two or more plies of Flintglas Ply Sheet 4 or Flintglas Premium Ply 6 adhered to the base sheet with approved mopping asphalt applied within the EVT range and at a rate of 20-35 lbs./sq.

**Cap Sheet:
(Optional)** One ply of Flintglas MS Cap Sheet or Flintglas MS Cap CoolStar adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.

Surfacing: *(Required if no cap sheet is used)* Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. A two part coating consisting of a base coat of APOC #300 Non-Fibered Emulsion at rate of 3 gal./sq.; surfaced with 1 gal./sq. APOC#212 Fibered Aluminum Roof Coating.

**Maximum Design
Pressure:** -52.5 psf (See General Limitations #9)



Membrane Type: BUR
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type C(2): All layers of insulation simultaneously fastened

All General and System Limitations apply.

One or more layers of any of the following insulations:

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
FlintBoard ISO, FlintBoard _H ISO, AC Foam-II, ENRGY 3, Multi-Max FA-3, H-Shield Minimum 1.5" thick	1, 3, 4, 11 or 13	1:1.33 ft ²

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or two or more plies of Flintglas Ply Sheet 4 or Flintglas Premium Ply 6 adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.

**Cap Sheet:
(Optional)** One ply of Flintglas MS Cap Sheet or Flintglas MS Cap CoolStar adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.

Surfacing: *(Required if no cap sheet is used)* Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. A two part coating consisting of a base coat of APOC #300 Non-Fibered Emulsion at rate of 3 gal./sq.; surfaced with 1 gal./sq. APOC#212 Fibered Aluminum Roof Coating.

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



Membrane Type: BUR
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type D: All layers of insulation and base sheet simultaneously attached

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/ft²</u>
FlintBoard ISO, FlintBoard _H ISO, ACfoam-II, ENRGY 3, ENRGY 3 25 PSI, H-Shield Minimum 1.5” thick	N/A	N/A
<u>Top Insulation Layer (Optional)</u>	<u>Insulation Fasteners Table 3</u>	<u>Fastener Density/ft²</u>
Fesco Board Minimum ¾” thick	N/A	N/A
Structodek High Density Fiberboard Roof Insulation Minimum ½” thick	N/A	N/A
DensDeck, DensDeck Prime Minimum ¼” thick	N/A	N/A

Note: Optional top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or Yosemite Venting Base Sheet mechanically attached as below.

Fastening: OMG #14 Roofgrip and OMG 3 in. Ribbed Galvalume Plates, Dekfast DF-#14-PH3 fasteners with Dekfast PLT-H-2-7/8 Plate, FlintFast #14 fasteners with FlintFast 3” Insulation Plate or Trufast #14 HD Fastener with Trufast 3” Metal Insulation Plates at a 4” side lap 6” o.c. and two rows staggered in the center of the sheet, 6” o.c.

Ply Sheet: *(Optional if Cap Sheet used)* One ply of All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or two or more plies of Flintglas Ply Sheet 4 or Flintglas Premium Ply 6 adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.



**Cap Sheet:
(Optional)**

One ply of Flintglas MS Cap Sheet or Flintglas MS Cap CoolStar adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.

Surfacing:

(Required if no cap sheet is used) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. A two part coating consisting of a base coat of APOC #300 Non-Fibered Emulsion at rate of 3 gal./sq.; surfaced with 1 gal./sq. APOC#212 Fibered Aluminum Roof Coating.

**Maximum Design
Pressure:**

-67.5 psf (See General Limitation #7)



Membrane Type: BUR
Deck Type 3: Concrete Decks, Non-Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type F: Base sheet adhered with approved asphalt

All General and System Limitations apply.

One or more layers of any of the following insulations:

Base Sheet: Install one or more plies of All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or Glasbase Base Sheet directly to the concrete substrate. Adhere with any approved mopping asphalt at an application rate of 20-35 lbs./sq., or spot or strip mopped as detailed in this approval; see General Limitation #4

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or two or more plies of Flintglas Ply Sheet 4 or Flintglas Premium Ply 6 adhered with approved mopping asphalt applied within the EVT range and at a rate of 20-35 lbs./sq.

**Cap Sheet:
(Optional)** One ply of Flintglas MS Cap Sheet or Flintglas MS Cap CoolStar adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.

Surfacing: *(Required if no cap sheet is used)* Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. A two part coating consisting of a base coat of APOC #300 Non-Fibered Emulsion at rate of 3 gal./sq.; surfaced with 1 gal./sq. APOC#212 Fibered Aluminum Roof Coating.

**Maximum Design
Pressure:** -235 psf (See General Limitation #9)



CONCRETE DECK 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 Professional Engineer, Registered Architect, or Registered Roof Consultant.

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