



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
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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 Modified Bitumen Roofing Systems over Wood 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. 17-1003.04 and consists of pages 1 through 49.
The submitted documentation was reviewed by Alex Tigera.



NOA No.: 18-1127.18
Expiration Date: 06/19/23
Approval Date: 01/17/19
Page 1 of 49

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Modified Bitumen
Material: APP/SBS
Deck Type: Wood
Maximum Design Pressure: -127.5 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	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	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.
Flintglas Ply 4	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 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.
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.
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.

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>
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 II	Granule surfaced SBS modified bitumen membrane with a nonwoven polyester/fiberglass composite mat reinforcement for use in cold or mop applications.
Flintlastic Cap 30	39 3/8" x 32' 10"; Roll weight: 86 lbs. (1 square)	ASTM D 6163, Grade G, Type I	Granule surfaced SBS Modified Bitumen membrane with fiberglass mat reinforcement for 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: 81 lbs. (1 square)	ASTM D 6163, Grade S, Type I	Modified Bitumen, coated fiberglass base sheet for torch application.
Flintlastic Ultra Poly SMS Base Sheet	39 3/8" x 32' 10"; Roll weight: 90 lbs. (1 squares)	ASTM D 6164, Grade S, Type I	Smooth surfaced SBS Modified Bitumen Membrane with non-woven polyester mat reinforcement for mop or torched applications.
Glasbase Base Sheet	36" x 98' 9"; Roll weight: 75 lbs. (3 squares)	ASTM D 4601, Type II	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	Modified Bitumen coated polyester base 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>
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 Type G3	Mineral Surfaced fiberglass reinforced buffer sheet.
Flintlastic APP Base T	39 3/8" x 65' 4"; Roll weight: 100 lbs. (2 squares)	ASTM D 6509	Modified Bitumen coated fiberglass base sheet.
Flintlastic Ultra Glass SA	39 3/8" x 33'11"; Roll weight: 73 lbs. (1 square)	ASTM D 1970	Self-adhering, fiberglass reinforced, SBS modified bitumen base/ply sheet.
Black Diamond™ Base Sheet	36" x 68'7"; Roll weight: 78 lbs. (2 squares)	ASTM D 1970 ASTM D4601 Type I	Self-adhering fiberglass reinforced modified bitumen base sheet
Flintlastic SA PlyBase	39 3/8" x 66'6"; Roll weight: 86 lbs. (2 squares)	ASTM D 4601, Grade S, Type II ASTM D 1970	Self-adhering, fiberglass reinforced, SBS modified bitumen base/ply sheet.
Flintlastic SA Mid Ply	39 3/8" x 32'1"; Roll weight: 62 lbs. (1 square)	ASTM D 6163, Grade S, Type I	Self-adhering, polyester reinforced, SBS modified bitumen ply sheet.
FlintBond Brush	5 gallon pails	ASTM D 3019	Cold applied, SBS polymer modified asphalt adhesive.

APPROVED INSULATIONS:

TABLE 2

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer</u> <u>(With Current NOA)</u>
FlintBoard ISO	Polyisocyanurate foam insulation	CertainTeed Corp.
FlintBoard _H ISO	Polyisocyanurate foam insulation	CertainTeed Corp.
FlintBoard ISO Cold	Polyisocyanurate foam insulation	CertainTeed Corp.
ACFoam-II	Polyisocyanurate foam insulation	Atlas Roofing Corp.
ACFoam-III	Polyisocyanurate foam insulation	Atlas Roofing Corp.
DensDeck	Water resistant gypsum board	Georgia Pacific Gypsum LLC
DensDeck Prime	Water resistant gypsum board	Georgia Pacific Gypsum LLC
H-Shield	Polyisocyanurate foam insulation	Hunter Panels LLC
ENRGY 3	Polyisocyanurate foam insulation	Johns Manville Corp.
ENRGY 3 25 PSI	Polyisocyanurate foam insulation	Johns Manville Corp.
Multi-Max FA-3	Polyisocyanurate foam insulation	RMax Operating, LLC
SECUROCK Gypsum-Fiber Roof Board	homogenous fiber reinforced	USG Corp.
Structodek High Density Fiberboard Roof Insulation	High Density Wood Fiber Insulation board	Blue Ridge Fiberboard, Inc.
FescoBoard	Expanded perlite and fiber insulation	Johns Manville Corp.



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.	Trufast #12 DP Fastener	Insulation fastener for wood and steel decks	various	Altenloh, Brinch & Co. U.S., Inc.
2.	Trufast 3" Metal Insulation Plate	Galvalume steel plate	3" round	Altenloh, Brinch & Co. U.S., Inc.
3.	FlintFast #12	Coated, carbon steel screw	various	CertainTeed Corp.
4.	FlintFast 3" Insulation Plate	Galvalume AZ50 steel plate	3" round	CertainTeed Corp.
5.	FlintFast #14	Insulation fastener for wood and steel decks	various	CertainTeed Corp.
6.	Simplex MAXX Cap	Polymer fastner	1" long	Simplex Nails, Inc.
7.	#12 Standard Roofgrip	Insulation fastener for wood and steel.	various	OMG, Inc.
8.	OMG 3" Galvalume Steel Plate	Galvalume stress plate	3" round	OMG, Inc.
9.	Trufast #14 HD Fastener	Insulation fastener for wood and steel decks	various	Altenloh, Brinch & Co. U.S., Inc.
10.	OMG Heavy Duty	Insulation and membrane fastener	Various	OMG, Inc.
11.	3 in. Round Metal Plate	Galvalume AZ50 steel plate	3" round	OMG, Inc.
12.	AccuTrac Hextra	Carbon steel fastener	Various	OMG, Inc.
13.	AccuTrac Plate	Galvalume stress plate.	3" square	OMG, Inc.
14.	AccuTrac Flat Bottom Plate	A2-SS aluminized steel plate	3" square	OMG, Inc.
15.	Millennium One Step Foamable Adhesive	Polyurethane two component high rise insulation adhesive	1.5 liters	H.B. Fuller Company
16.	Millennium One Step Green Foamable Adhesive	Polyurethane two component high rise insulation adhesive	1.5 liters	H.B. Fuller Company
17.	Millennium PG-1 Low Viscosity Insulation Adhesive	Polyurethane two component low rise insulation adhesive	1.5 liters	H.B. Fuller Company
18.	Insta Stik Quik Set Insulation	Polyurethane one component moisture curing adhesive	It is supplied in pressurized cylinders with a net weight of 23 lbs., with a total unit weight of 30 lbs.	The Dow Chemical Company

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>
19.	OMG OlyBond 500 Adhesive	Spray polyurethane foam insulation adhesive	10 gal. bag-in-box set and 1.5 liters SpotShot cartridge	OMG, Inc.
20.	OMG OlyBond 500 Green Adhesive	Spray polyurethane foam insulation adhesive	10 gal. bag-in-box set and 1.5 liters SpotShot cartridge	OMG, 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 Fibered 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	3Y8A1.AM	03/23/96
	FM 4470	0D3A3.AM	04/04/97
	FM 4470	1D7A4.AM	11/09/98
	FM 4470	2D0A0.AM	12/23/98
	FM 4470	3024311	11/01/06
	FM 4470	3031350	09/27/07
	FM 4470	3036182	07/31/09
	FM 4470	3039046	06/15/10
	FM 4470	3048520	09/19/13
Underwriters Laboratories, Inc.	UL 790	R11656	01/11/13
United States Testing Company	ASTM D 5147	97-457-2R	12/02/87
	ASTM D 5147	97-457-4	06/03/88
Momentum Technologies, Inc.	ASTM D 6164	AX31G8F	06/05/09
Trinity ERD	TAS 114 (J)	3507.08.99-1	04/18/01
	TAS 114 (J)	3504.06.01-1	06/05/01
	TAS 114	3521.07.04	07/29/04
	TAS 114	3533.01.06	01/06/06
	TAS 114 (H)	Letter	04/05/06
	TAS 117 (B)	3503.10.06	10/10/06
	TAS 117 (B)	O6490.04.07-R1	06/27/07
	TAS 117 (B) / ASTM D 6862	C8500SC.11.07	11/30/07
	FM 4470, TAS 114, FM 4470, TAS 114 (J)	C8370.08.08-R1	10/05/09
	TAS 114 (H), TAS 117 (B), TAS 114 (J)	C30560.06.10	06/10/10
	FM 4470, TAS 114	C32830.07.10	07/20/10
	ASTM D 6164 / D 4798	C31410.01.11-2	01/10/11
	TAS 117 B	C35500.02.11	02/09/11
	FM 4470 (K) / TAS 114 (J)	03515.07.03-1-R1	06/27/12
	ASTM D 1876, TAS 114 (H), TAS 117 (B)	C42110.08.12	08/13/12
	FM 4474 / TAS 114	C39670.08.12	08/20/12
	ASTM D 4601	C40050.09.12-1	09/28/12
	ASTM D 1970	C40050.09.12-2	09/28/12
	ASTM D 5147 / D 4798	C31410.10.10-R1	11/01/12
	ASTM D 5147 / D 4798	C31410.01.11-1-R1	11/01/12
	ASTM D 4798	C31410.01.11-2A-R1	02/21/13
	ASTM D 4798	C31410.12.13	12/05/13
	ASTM D 6222	C40050.12.13-R1	12/31/13
	TAS 117, TAS 114	C30310.12.09-R1	03/07/14
	ASTM D 2178	C47250.03.14	03/26/14
	ASTM D 1876, TAS 114 (H), FM 4474	C45620.03.14	03/27/14

EVIDENCE SUBMITTED:

<u>Test Agency/Identifier</u>	<u>Name</u>	<u>Report</u>	<u>Date</u>
	ASTM D4601	CTR-SC8740.04.15-R2	04/21/15
	ASTM D 1876, TAS 114 (H), FM 4474	C47320.03.14-R1	04/01/15
	ASTM D 1876	C35460.05.11-R1	05/20/15
	FM 4474 (D) / UL 1897 / TAS 114 (J)	CTR-SC10420.01.16	01/25/16
	FM 4474 / TAS 114 (J)	CTR-SC9175.09.16-2	09/06/16
	FM 4470 (K) / UL 1897 / TAS 114 (J)	CTR-SC11590.08.16- R1	09/06/16
	ASTM D 4601-04 (2012), Type II	CTR-SC11145.09.16- 3C	09/19/16
	ASTM D 4601-04 (2012), Type II	CTR-SC11145.09.16- 3A	09/19/16
	ASTM D 6163	CTR-SC11145.09.16- 5A	09/19/16
	ASTM D 6222	CTR-SC11145.09.16- 7A	09/19/16
PRI Construction Materials Technologies LLC	ASTM D 6163	CTC-056-02-01	08/25/10
	ASTM D 6163	CTC-066-02-01	08/09/11
	ASTM D 6222	CTC-071-02-01	08/08/11
	ASTM D 6164 / D 4798	CTC-093-02-01	08/09/11
	ASTM D 4601	CTC-126-02-01	03/12/12
	ASTM D 2178	CTC-123-02-01	03/13/12
	ASTM D 4601	CTC-127-02-01	03/13/12
	ASTM D 6163	CTC-128-02-01	06/11/12
	ASTM D 6163	CTC-129-02-01	06/11/12
	ASTM D 6164	CTC-132-02-01	06/11/12
	ASTM D 6164	CTC-161-02-01	05/09/13
	ASTM D 6162	CTC-183-02-01	10/02/13
	ASTM D 6164	CTC-190-02-01	12/02/13
	ASTM D 1970	CTC-199-02-01	01/22/14
	ASTM D 6163	CTC 319-02-01	08/22/17

APPROVED ASSEMBLIES:

Membrane Type:	APP Modified
Deck Type II:	Wood, Insulated
Deck Description:	¹⁹ / ₃₂ " or greater plywood or wood plank attached with 8d ring shank nails spaced 6" o.c. at wood joists spaced maximum 24" o.c.
System Type A(1):	Anchor sheet mechanically fastened; all layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

Anchor Sheet:	One ply of All Weather/Empire Base Sheet, Yosemite Venting Base Sheet, Flexiglas Base Sheet, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase Base Sheet or Flintglas Premium Ply 6 mechanically attached as detailed below.
Fastening:	Anchor sheet shall be lapped 4" and fastened with 11 ga. annular ring shank nails and approved tin caps 8" o.c. in the lap and three rows staggered in the center of the sheet 8" o.c.

One or more layers of any of the following insulations.

<u>Insulation Layer</u>	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, Multi-Max FA-3, ENRGY 3, H-Shield, FlintBoard _H ISO Minimum 1.5" thick	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 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 ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered to the insulated substrate.
Ply Sheet: (Optional)	One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20 or Flintlastic Poly SMS Base or one or more plies of Flintglas Ply 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 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered or Flintlastic STA or Flintlastic APP Base T torch adhered.
Membrane:	One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or 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 torch adhered. Or One ply of Flintlastic GTA or Flintlastic GTA-FR torch adhered to base or ply sheet.

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

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



Membrane Type:	SBS Modified
Deck Type II:	Wood, Insulated
Deck Description:	¹⁹ / ₃₂ " or greater plywood or wood plank attached with 8d ring shank nails spaced 6" o.c. at wood joists spaced maximum 24" o.c.
System Type A(2):	Anchor sheet mechanically fastened; all layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

Anchor Sheet:	One ply of All Weather/Empire Base Sheet, Yosemite Venting Base Sheet, Flexiglas Base Sheet, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase Base Sheet or Flintglas Premium Ply 6 mechanically attached as detailed below.
Fastening:	Anchor sheet shall be lapped 4" and fastened with 11 ga. annular ring shank nails and approved tin caps 8"o.c. in the lap and three rows staggered in the center of the sheet 8"o.c.

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>
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, ENRGY 3, ENRGY 3 25 PSI, H-Shield, FlintBoard_H ISO Minimum 1.5" thick	N/A	N/A
FescoBoard 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: 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 ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet adhered to the insulated substrate in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq
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Ply Sheet: (Optional)	One ply 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 4 or Flintglas Premium Ply 6 adhered to 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 Flintlastic Ultra Poly SMS Base Sheet torch applied.
Membrane:	One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base/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 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: APP Modified

Deck Type II: Wood, Insulated

Deck Description: ¹⁹/₃₂" or greater plywood or wood plank attached with 8d ring shank nails spaced 6" o.c. at wood joists spaced maximum 24" o. c.

System Type A(3): Anchor sheet mechanically fastened; all layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

Anchor Sheet: One ply of All Weather/Empire Base Sheet, Yosemite Venting Base Sheet, Flexiglas Base Sheet, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase Base Sheet, Flintglas Premium Ply 6 mechanically attached as detailed below.

Fastening: Anchor sheet shall be lapped 4" and fastened with 11 ga. annular ring shank nails and approved tin caps 8"o.c. in the lap and three rows staggered in the center of the sheet 8"o.c.

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>
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, Multi-Max FA-3, ENRGY 3, H-Shield, FlintBoard _H ISO Minimum 1.5" thick	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 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 ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered to the insulated substrate.

**Ply Sheet:
(Optional)** One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20 or Flintlastic Poly SMS Base Sheet or one or more plies of Flintglas Ply 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 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered or Flintlastic STA or Flintlastic APP Base T torch adhered.

Membrane: Flintlastic GTA or Flintlastic GTA-FR torch adhered to base or 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 II: Wood, Insulated

Deck Description: ¹⁹/₃₂" or greater plywood or wood plank attached with 8d ring shank nails spaced 6" o.c. at wood joists spaced maximum 24" o. c.

System Type A(4): Anchor sheet mechanically fastened; all layer of insulation adhered with approved asphalt.

All General and System Limitations apply.

Anchor Sheet: One ply of All Weather/Empire Base Sheet, Yosemite Venting Base Sheet, Flexiglas Base Sheet, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase Base Sheet or Flintglas Premium Ply 6 mechanically attached as detailed below.

Fastening: Anchor sheet shall be lapped 4" and fastened with 11 ga. annular ring shank nails and approved tin caps 8"o.c. in the lap and three rows staggered in the center of the sheet 8"o.c.

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>
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, ENRGY 3, ENRGY 3 25 PSI, H-Shield, FlintBoard _H ISO Minimum 1.5" thick	N/A	N/A
FescoBoard 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: 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 ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet adhered to the insulated substrate 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 ply 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 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 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered or Flintlastic Ultra Poly SMS Base Sheet torch applied.
Membrane:	One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or 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 torch adhered to base/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: APP Modified

Deck Type II: Wood, Insulated

Deck Description: $1\frac{5}{32}$ " or greater CDX plywood or wood plan attached with #8 screws spaced 6" o.c. at wood joists spaced maximum 24" o.c.

System Type B(1): Base layer of insulation mechanically fastened, top layer adhered with approved adhesive.

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>
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard _H ISO Minimum 1.5" thick	1, 3	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 (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard _H ISO Minimum 1.5" thick	N/A	N/A

Note: Top layer of insulation shall be adhered with Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive, Millennium PG-1 Low Viscosity Insulation Adhesive in 3/4" – 1" wide beads spaced 12 inch o.c. 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 to the insulated substrate.

Ply Sheet: One or more plies of Flintlastic APP Base T or Flintlastic STA, torch adhered to the base sheet.

Membrane: One ply of Flintlastic GTA or Flintlastic GTA-FR, torch adhered to the 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:	APP Modified
Deck Type 1I:	Wood, Insulated
Deck Description:	¹⁵ / ₃₂ " or greater CDX plywood or wood plank attached with #8 screws spaced 6" o.c. at wood joists spaced maximum 24" o.c.
System Type B(2):	Base layer of insulation mechanically fastened, top layer adhered with approved adhesive.

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>
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard _H ISO Minimum 1.5" thick	1, 3	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 (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum 1/4" thick	N/A	N/A

Note: Top layer of insulation shall be adhered with Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive, Millennium PG-1 Low Viscosity Insulation Adhesive, Insta-Stik Quik Set Insulation Adhesive, OMG OlyBond 500 Adhesive or OMG OlyBond 500 Green Adhesive in 3/4" – 1" wide beads spaced 12 inch o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet:	One ply of Flintlastic STA or Flintlastic APP Base T, torch adhered to the insulated substrate.
Ply Sheet: (Optional)	One ply of Flintlastic STA or Flintlastic APP Base T, torch adhered to the base sheet.
Membrane:	One ply of Flintlastic GTA or Flintlastic GTA-FR, torch adhered to base or ply sheet.
Surfacing: (Optional)	Any of the approved surfacing/coating options listed in Table 4.
Maximum Design Pressure:	-90 psf (See General Limitation #7)



Membrane Type: SBS/APP Modified

Deck Type II: Wood, Insulated

Deck Description: $1\frac{5}{32}$ " or greater APA rated CDX plywood or wood plank attached with 8d ring shank nails spaced 6" o.c. at wood joists spaced maximum 24" o.c.

System Type C(1): All layers of insulation simultaneously attached.

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 (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold Minimum 1.5" thick	N/A	N/A

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

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold Minimum 1.5" thick	2 with 9 or 4 with 5	1:1.6 ft ²

Note: Top insulation layer 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. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Primer: FlintPrime primer applied at a rate of 0.5 gal/sq and allowed to dry prior to application of base sheet.
**Required only for Flintlastic SA PlyBase or Flintlastic SA Mid Ply.*

Base Sheet: One ply of Flintlastic SA PlyBase or Flintlastic SA Mid Ply, self-adhered to the insulated substrate.
**Requires use of self-adhering sheet overtop.*

Or

One ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA, torch applied to the insulated substrate.
**Requires use of torch-applied sheet overtop.*

**Ply Sheet:
(Optional)** One ply of Flintlastic SA PlyBase or Flintlastic SA Mid Ply, self-adhered to the base sheet.
**Requires use of self-adhering sheet overtop.*

Or

One ply of Flintlastic Ultra Poly SMS Base Sheet, Flintlastic Base 20 T, Flintlastic APP Base T or Flintlastic STA torch adhered to the base sheet.
**Requires use of torch-applied sheet overtop.*



Membrane: Flintlastic FR Cap 30 T, Flintlastic GTA or Flintlastic GTA-FR 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: APP Modified

Deck Type II: Wood, Insulated

Deck Description: $1\frac{5}{32}$ " or greater CDX plywood or wood plank attached with #8 screws spaced 6" o.c. at wood joists spaced maximum 24" o.c.

System Type C(2): All layers of insulation 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</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard _H ISO Minimum 1.5" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; 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>
SECUROCK Gypsum-Fiber Roof Board Minimum $\frac{1}{4}$ " thick	1, 3	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. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of Flintlastic STA or Flintlastic APP Base T, torch adhered to the insulated substrate.

**Ply Sheet:
(Optional)** One ply of Flintlastic STA or Flintlastic APP Base T, torch adhered to the base sheet.

Membrane: One ply of Flintlastic GTA or Flintlastic GTA-FR, torch adhered to base or 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: APP Modified

Deck Type 1I: Wood, Insulated

Deck Description: $1\frac{5}{32}$ " or greater CDX plywood or wood plank attached with #8 screws spaced 6" o.c. at wood joists spaced maximum 24" o.c.

System Type C(3): All layers of insulation 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>
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard _H ISO Minimum 1.5" thick	N/A	N/A

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

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard _H ISO Minimum 1.5" thick	1, 3	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. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. 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 to the insulated substrate.

Ply Sheet: One or more plies of Flintlastic APP Base T or Flintlastic STA, torch adhered to the base sheet.

Membrane: One ply of Flintlastic GTA or Flintlastic GTA-FR, torch adhered to ply sheet.

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

**Maximum Design
Pressure:** -75.0 psf (See General Limitation #7)



Membrane Type:	SBS Modified
Deck Type II:	Wood, Insulated
Deck Description:	¹⁵ / ₃₂ " or greater APA rated CDX plywood or wood plank attached with 8d ring shank nails spaced 6" o.c. at wood joists spaced maximum 24" o.c.
System Type D(1):	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>Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
Any Approved Polyisocyanurate Listed in Table 2		
Minimum 1.5" thick	N/A	N/A

Note: Insulation layer shall have preliminary attachment, prior to the installation of the base sheet, at an 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 sheet below for fasteners and density.

Base Sheet:	One ply of Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Yosemite Venting Base Sheet, Flintlastic Poly SMS Base Sheet and Flintlastic Ultra Poly SMS Base Sheet, mechanically attached as described below.
Fastening #1:	Trufast #12 DP Fasteners or Trufast #14 HD Fasteners with Trufast 3" Metal Insulation Plates, FlintFast #12 fasteners or FlintFast #14 fasteners with FlintFast 3" Insulation Plates spaced 8" o.c. at the 4" wide laps and 8" o.c. in three, equally spaced staggered center rows.
Ply Sheet: (Optional)	One ply of Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet applied in FlintBond Brush at a rate of 1.0 – 1.5 gal/sq to the base sheet.
Membrane:	One ply of Flintlastic Cap 30, Flintlastic FR Cap 30, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P or Flintlastic GMS applied in FlintBond Brush at a rate of 1.0 – 1.5 gal/sq 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 1I: Wood, Insulated

Deck Description: $1\frac{5}{32}$ " or greater APA rated plywood or wood plank attached with #10 wood screws spaced 6" o.c. at wood joists spaced maximum 24" o.c.

System Type D(2): 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>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Any Approved Polyisocyanurate Listed in Table 2 Minimum 1.5" thick	N/A	N/A

Note: Insulation layer shall have preliminary attachment, prior to the installation of the base sheet, at an 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 sheet below for fasteners and density.

Base Sheet: One ply of Glasbase Base Sheet, Yosemite Venting 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, mechanically attached as described below.

Fastening #1: Fastened with Trufast #14 HD Fasteners with Trufast 3" Metal Insulation Plates or FlintFast #14 Fasteners with FlintFast 3" Insulation Plates spaced 8" o.c. at the 4" wide laps and 8" o.c. in three, equally spaced staggered center rows.

Ply Sheet (Optional): One ply 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 to 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 Glasbase Base Sheet, All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base torch applied to base sheet or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered to the base sheet.

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

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

Maximum Design Pressure: -97.5 psf. (See General Limitation #7)



Membrane Type: SBS Modified
Deck Type 1: Wood, Non-insulated
Deck Description: ¹⁵/₃₂" or greater CDX plywood or wood plank attached with 8d ring shank nails spaced 6" o.c at wood joists spaced maximum 24" o.c.
System Type E(1): Base sheet mechanically fastened.

All General and System Limitations apply.

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

Fastening #1: Fastened with Simplex MAXX Cap fasteners spaced 9" o.c. in the 2" side lap and 12" o.c. in two evenly divided, staggered rows in the center of the sheet.

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

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

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



Membrane Type: APP Modified
Deck Type 1: Wood, Non-insulated
Deck Description: $\frac{15}{32}$ " or greater CDX plywood or wood plank attached with 8d ring shank nails spaced 6" o.c. at wood joists spaced maximum 24" o.c.
System Type E(2): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of Flintlastic APP Base T mechanically attached as detailed below.

Fastening #1: Fastened with Simplex MAXX Cap fasteners spaced 9" o.c. in the 2" side lap and 12" o.c. in two evenly divided, staggered rows in the center of the sheet.

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

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

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

Membrane Type: APP Modified
Deck Type 1: Wood, Non-Insulated
Deck Description: ¹⁹/₃₂" or greater plywood or wood plank attached with 8d ring shank nails spaced 6" o.c. at wood joists spaced maximum 24" o.c.
System Type E(3): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of All Weather/Empire Base Sheet, Yosemite Venting Base Sheet, Flexiglas Base Sheet, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase Base Sheet or Flintglas Premium Ply 6 mechanically attached as detailed below.

Fastening #1: Base sheet shall be lapped 4" and fastened with 11 ga. annular ring shank nails and approved tin caps 8"o.c. in the lap and three rows staggered in the center of the sheet 8"o.c.

**Ply Sheet:
(Optional)** One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one or more plies of Flintglas Ply 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 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered or Flintlastic STA or Flintlastic APP Base T torch adhered.

Membrane: Flintlastic GTA or Flintlastic GTA-FR 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 1: Wood, Non-Insulated

Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank attached with 8d ring shank nails spaced 6" o.c. at wood joists spaced maximum 24" o.c.

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

All General and System Limitations apply.

Base Sheet: One ply of All Weather/Empire Base Sheet, Yosemite Venting Base Sheet, Flexiglas Base Sheet, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase Base Sheet or Flintglas Premium Ply 6 mechanically attached as detailed below.

Fastening #1: Base sheet shall be lapped 4" and fastened with 11 ga. annular ring shank nails and approved tin caps 8"o.c. in the lap and three rows staggered in the center of the sheet 8"o.c.

Ply Sheet: (Optional) One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one or more plies of Flintglas Ply 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 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered or Flintlastic Ultra Poly SMS Base Sheet torch adhered.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or 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 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 1: Wood, Non-Insulated

Deck Description: ¹⁵/₃₂" or greater CDX plywood or wood plank attached with #8d ring shank nails spaced 6" o.c. at wood joists spaced 24" o.c.

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

All General and System Limitations apply.

Base Sheet: One ply of Glasbase Base Sheet or Yosemite Venting Base Sheet, mechanically attached as described below.

Fastening #1: Fastened with FBC HVHZ nails and tin caps spaced 6" o.c. at the 3" lap and 6" o.c. in four, equally spaced staggered center rows.

**Ply Sheet:
(Optional)** One or more plies of Glasbase Base Sheet, All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet 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 or more plies of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or one ply of Flintlastic FR Cap 30 T 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 1:	Wood, Non-Insulated
Deck Description:	¹⁵ / ₃₂ " or greater APA rated CDX plywood or wood plank attached with 8d ring shank nails spaced 6" o.c. at wood joists spaced maximum 24" o.c.
System Type E(6):	Base sheet mechanically fastened

All General and System Limitations apply.

Base Sheet:	One ply of Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Yosemite Venting Base, Flintlastic Poly SMS Base and Flintlastic Ultra Poly SMS Base, mechanically attached as described below.
Fastening #1:	Trufast #12 DP Fasteners or Trufast #14 HD Fasteners with Trufast 3" Metal Insulation Plates, FlintFast #12 fasteners or FlintFast #14 fasteners with FlintFast 3" Insulation Plates spaced 8" o.c. at the 4" wide laps and 8" o.c. in three, equally spaced staggered center rows.
Ply Sheet (Optional):	One ply of Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet applied in FlintBond Brush at a rate of 1.0 – 1.5 gal/sq. to the base sheet.
Membrane:	One ply of Flintlastic Cap 30, Flintlastic FR Cap 30, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P or Flintlastic GMS applied in FlintBond Brush at a rate of 1.0 – 1.5 gal/sq 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: APP Modified
Deck Type 1: Wood, Non-Insulated
Deck Description: ¹⁹/₃₂" or greater plywood or wood plank attached with 8d ring shank nails spaced 4" o.c. at wood joists spaced maximum 24" o.c.
System Type E(7): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of All Weather/Empire Base Sheet, Yosemite Venting Base Sheet, Flexiglas Base Sheet, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase Base Sheet or Flintglas Premium Ply 6 mechanically attached as detailed below.

Fastening #1: Base sheet shall be lapped 4" and fastened with 11 ga. annular ring shank nails and approved tin caps 8" o.c. in the lap and three rows staggered in the center of the sheet 8" o.c.

Ply Sheet: (Optional) One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one or more Flintglas Ply 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 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered or Flintlastic STA or Flintlastic APP Base T torch adhered.

Membrane: Flintlastic GTA or Flintlastic GTA-FR torch adhered to base or 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 1: Wood, Non-Insulated

Deck Description: ¹⁹/₃₂" or greater plywood or wood plank attached with 8d ring shank nails spaced 4" o.c. at wood joists spaced maximum 24" o.c.

System Type E(8): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of All Weather/Empire Base Sheet, Yosemite Venting Base Sheet, Flexiglas Base Sheet, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase Base Sheet or Flintglas Premium Ply 6 mechanically attached as detailed below.

Fastening #1: Base sheet shall be lapped 4" and fastened with 11 ga. annular ring shank nails and approved tin caps 8"o.c. in the lap and three rows staggered in the center of the sheet 8"o.c.

**Ply Sheet:
(Optional)** One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one or more plies of Flintglas Ply 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 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered or Flintlastic Ultra Poly SMS Base Sheet torch adhered.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or 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 torch adhered to base or 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 1: Wood, Non-Insulated
Deck Description: ¹⁹/₃₂" or greater plywood or wood plank attached with #8 wood screws spaced 6" o.c. at wood joists spaced at maximum 24" o.c.
System Type E(9): Base sheet mechanically fastened

All General and System Limitations apply.

Separation Sheet: One or more plies of Glasbase Base Sheet, loose laid.
(Optional)

Base Sheet: One or more plies of Glasbase Base Sheet, Yosemite Venting Base Sheet, Flexibase Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet, mechanically attached as described below.

Fastening #1: Anchor sheet shall be fastened with FBC HVHZ nails and tin caps spaced 6" o.c. at the 3" lap and 6" o.c. in four, equally spaced staggered center rows.

Ply Sheet: One ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA, self-adhered to the base sheet.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 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 torch adhered to ply sheet.

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

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

Membrane Type: APP Modified
Deck Type 1: Wood, Non-Insulated
Deck Description: ¹⁹/₃₂" or greater plywood or wood plank attached with #8 wood screws spaced 6" o.c. at wood joists spaced maximum 24" o.c.
System Type E(10): Base sheet mechanically fastened

All General and System Limitations apply.

Separation Sheet: One or more plies of Glasbase Base Sheet, loose laid.
(Optional)

Base Sheet: One or more plies of Glasbase Base Sheet, Yosemite Venting Base Sheet, Flexibase Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet, mechanically attached as described below.

Fastening #1: Anchor sheet shall be fastened with FBC HVHZ nails and tin caps spaced 6" o.c. at the 3" lap and 6" o.c. in four, equally spaced staggered center rows.

Ply Sheet: One ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA, self-adhered to the base sheet.

Membrane: One ply of Flintlastic GTA or Flintlastic GTA-FR torch adhered to ply sheet.

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

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



Membrane Type: SBS Modified
Deck Type 1: Wood, Non-Insulated
Deck Description: ¹⁹/₃₂" or greater plywood or wood plank attached with 8d ring shank nails spaced 6" o.c. at wood joists spaced maximum 24" o.c.
System Type E(11): Base sheet mechanically fastened

All General and System Limitations apply.

Separation Sheet: One or more plies of Glasbase Base Sheet, loose laid.
(Optional)

Base Sheet: One or more plies of Glasbase Base Sheet, Yosemite Venting Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet, mechanically attached as described below.

Fastening #1: OMG #12 Standard Roofgrip fasteners with OMG 3" Galvanized Steel Plates or AccuTrac Plates or Trufast #12 DP fasteners with Trufast 3" Metal Insulation Plates or Flintfast #12 fasteners with Flintfast 3" Insulation Plates spaced 7" o.c. at the 4" wide laps and 7" o.c. in two, equally spaced staggered center rows.

Ply Sheet: One ply of Flintlastic Ultra Glass SA, self-adhered to the base sheet.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 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 torch adhered to ply sheet.

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

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



Membrane Type: SBS Modified

Deck Type 1: Wood, Non-Insulated

Deck Description: $1\frac{5}{32}$ " or greater APA rated plywood or wood plank attached with #8 screws spaced 6" o.c. at wood joists spaced maximum 24" o.c.

System Type E(12): Base sheet mechanically fastened

All General and System Limitations apply.

Base Sheet: One ply of Glasbase Base Sheet, Yosemite Venting 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, mechanically attached as described below.

Fastening #1: Cap nails: 1" diameter, 0.032" thick metal cap with 0.120" shank diameter, annular ring shank nails spaced 6" o.c. at the 4" wide laps and 6" o.c. in five, equally spaced staggered center rows.

Ply Sheet (Optional): One ply 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 to 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 Glasbase Base Sheet, All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base torch applied to base sheet.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or one ply of Flintlastic FR Cap 30 T torch adhered to base or 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 1: Wood, Non-Insulated

Deck Description: ¹⁹/₃₂" or greater plywood or wood plank attached with #8 wood screws spaced 6" o.c. at wood joists spaced maximum 24" o.c.

System Type E(13): Base sheet mechanically fastened

All General and System Limitations apply.

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

Fastening #1: Anchor sheet shall be fastened with HVHZ nails and tin caps spaced 6" o.c. at the 3" lap and 6 o.c. in four, equally spaced staggered center rows.

Ply Sheet: One ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered to the base sheet.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 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 torch adhered to ply sheet.

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

**Maximum Design
Pressure:** -82.5 psf (See General Limitation #7)



Membrane Type: APP Modified
Deck Type 1: Wood, Non-Insulated
Deck Description: ¹⁹/₃₂" or greater plywood or wood plank attached with #8 wood screws spaced 6" o.c. at wood joists spaced maximum 24" o.c.
System Type E(14): Base sheet mechanically fastened

All General and System Limitations apply.

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

Fastening #1: Anchor sheet shall be fastened with HVHZ nails and tin caps spaced 6" o.c. at the 3" lap and 3 o.c. in four, equally spaced staggered center rows.

Ply Sheet: One ply of Black Diamond Base Sheet, self-adhered to the base sheet.

Membrane: One ply of Flintlastic GTA or Flintlastic GTA-FR torch adhered to ply sheet.

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

**Maximum Design
Pressure:** -82.5 psf (See General Limitation #7)



Membrane Type: SBS Modified
Deck Type 1: Wood, Non-Insulated
Deck Description: $1\frac{5}{32}$ " or greater CDX plywood or wood plank attached with #10 wood screws spaced 6" o.c. at wood joists spaced maximum 24" o.c.
System Type E(15): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of Glasbase Base Sheet, Yosemite Venting Base Sheet, Flexiglas Base Sheet, All Weather / Empire Base Sheet, Flintlastic Base 20 or Flintlastic Poly SMS Base Sheet mechanically fastened with Simplex MAXX Cap fasteners spaced 6" o.c. in the 2" side lap and 6" o.c. in two evenly divided, staggered rows in the center of the sheet.

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

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

**Maximum Design
Pressure:** -90 psf. (See General Limitation #9)

Membrane Type: APP Modified
Deck Type 1: Wood, Non-Insulated
Deck Description: $1\frac{5}{32}$ " or greater CDX plywood or wood plank attached with #10 wood screws spaced 6" o.c. at wood joists spaced maximum 24" o.c.
System Type E(16): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of Flintlastic APP Base T mechanically fastened with Simplex MAXX Cap fasteners spaced 6" o.c. in the 2" side lap and 6" o.c. in two evenly divided, staggered rows in the center of the sheet.

Membrane: One ply of Flintlastic GTA or Flintlastic GTA-FR, torch-applied to the base sheet.

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

**Maximum Design
Pressure:** -90 psf. (See General Limitation #9)



Membrane Type: SBS Modified
Deck Type 1: Wood, Non-Insulated
Deck Description: 1⁵/₃₂" or greater CDX plywood or wood plank attached with #10 wood screws spaced 6" o.c. at wood joists spaced maximum 24" o.c.
System Type E(17): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of Glasbase Base Sheet, Yosemite Venting Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet mechanically attached as described below.

Fastening #1: Fastened with Trufast #12 DP Fastener or Trufast #14 HD Fastener with Trufast 3" Metal Insulation Plate, OMG Heavy Duty fasteners with 3 in. Round Metal Plates, OMG AccuTrac Hextra with AccuTrac Flat Bottom plates, FlintFast #12 fasteners or FlintFast #14 fasteners with FlintFast 3" Insulation Plates spaced 6" o.c. at the 4" lap and 6" o.c. in three, equally spaced staggered center rows.

**Ply Sheet:
(Optional)** One or more plies of Glasbase Base Sheet, All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Ultra Poly SMS Base Sheet 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 or more plies of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied.

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

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

Maximum Design Pressure: -97.5 psf. (See General Limitation #7)

Membrane Type: SBS Modified

Deck Type 1: Wood, Non-Insulated

Deck Description: $\frac{15}{32}$ " or greater APA rated plywood or wood plank attached with #10 wood screws spaced 6" o.c. at wood joists spaced maximum 24" o.c.

System Type E(18): Base sheet mechanically fastened

All General and System Limitations apply.

Base Sheet: One ply of Glasbase Base Sheet, Yosemite Venting 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, mechanically attached as described below.

Fastening #1: Fastened with Trufast #14 HD Fasteners with Trufast 3" Metal Insulation Plates or FlintFast #14 Fasteners with FlintFast 3" Insulation Plates spaced 8" o.c. at the 4" wide laps and 8" o.c. in three, equally spaced staggered center rows.

Ply Sheet (Optional): One ply 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 to 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 Glasbase Base Sheet, All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base torch applied to base sheet or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered to base sheet.

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

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

Maximum Design Pressure: -97.5 psf. (See General Limitation #7)

Membrane Type: SBS Modified
Deck Type 1: Wood, Non-Insulated
Deck Description: ¹⁵/₃₂" or greater CDX plywood or wood plank attached with #10 wood screws spaced 4" o.c. at wood joists spaced maximum 24" o.c.
System Type E(19): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of Glasbase Base Sheet, Yosemite Venting Base Sheet, Flexiglas Base Sheet, All Weather / Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet mechanically fastened with Simplex MAXX Cap fasteners spaced 6" o.c. in the 2" side lap and 6" o.c. in three evenly divided, staggered rows in the center of the sheet.

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

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

**Maximum Design
Pressure:** -105 psf. (See General Limitation #9)

Membrane Type: APP Modified
Deck Type 1: Wood, Non-Insulated
Deck Description: $1\frac{5}{32}$ " or greater CDX plywood or wood plank attached with #10 wood screws spaced 4" o.c. at wood joists spaced maximum 24" o.c.
System Type E(20): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of Flintlastic APP Base T mechanically fastened with Simplex MAXX Cap fasteners spaced 6" o.c. in the 2" side lap and 6" o.c. in three evenly divided, staggered rows in the center of the sheet.

Membrane: One ply of Flintlastic GTA or Flintlastic GTA-FR, torch-applied to the base sheet.

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

**Maximum Design
Pressure:** -105 psf. (See General Limitation #9)



Membrane Type: SBS Modified

Deck Type 1: Wood, Non-Insulated

Deck Description: ¹⁹/₃₂" or greater plywood or wood plank attached with #8 wood screws spaced 6" o.c. at wood joists spaced maximum 24" o.c.

System Type E(21): Base sheet mechanically fastened

All General and System Limitations apply.

Base Sheet: One or more plies of Glasbase Base Sheet, Yosemite Venting Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet, mechanically attached as described below.

Fastening #1: Base sheet shall be fastened with OMG 12 Standard Roofgrip fasteners with OMG 3 in. Round Metal Plates or AccuTrac Plates or Trufast #12 DP fasteners with Trufast 3" Metal Insulation Plates or FlintFast #12 Fasteners with FlintFast 3" Insulation Plates spaced 7" o.c. at the 4" lap and 7 o.c. in three, equally spaced center rows.

Ply Sheet: One ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered to the base sheet.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 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 torch adhered to ply sheet.

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

**Maximum Design
Pressure:** -105.0 psf (See General Limitation #7)

Membrane Type: SBS Modified
Deck Type 1: Wood, Non-Insulated
Deck Description: ¹⁹/₃₂" or greater plywood or wood plank attached with #8 wood screws spaced 6" o.c. at wood joists spaced maximum 24" o.c.
System Type E(22): Base sheet mechanically fastened

All General and System Limitations apply.

Separation Sheet: One ply of Glasbase Base Sheet, loose laid.
(Optional)

Base Sheet: One or more plies of Glasbase Base Sheet, Yosemite Venting Base Sheet, Flexibase Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet, mechanically attached as described below.

Fastening #1: Base sheet shall be fastened with FBC HVHZ nails and tin caps spaced 4" o.c. at the 3" lap and 4" o.c. in four, equally spaced center rows.

Ply Sheet: One ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA, self-adhered to the base sheet.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 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 torch adhered to ply sheet.

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

Maximum Design Pressure: -105 psf (See General Limitation #7)



Membrane Type:	APP Modified
Deck Type 1:	Wood, Non-Insulated
Deck Description:	¹⁹ / ₃₂ " or greater plywood or wood plank attached with #8 wood screws spaced 6" o.c. at wood joists spaced maximum 24" o.c.
System Type E(23):	Base sheet mechanically fastened

All General and System Limitations apply.

Separation Sheet: (Optional)	One ply of Glasbase Base Sheet, loose laid.
Base Sheet:	One or more plies of Glasbase Base Sheet, Yosemite Venting Base Sheet, Flexibase Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet, mechanically attached as described below.
Fastening #1:	Base sheet shall be fastened with FBC HVHZ nails and tin caps spaced 4" o.c. at the 3" lap and 4" o.c. in four, equally spaced center rows.
Ply Sheet:	One ply of Black Diamond Base Sheet, self-adhered to the base sheet.
Membrane:	One ply of Flintlastic GTA or Flintlastic GTA-FR torch adhered to ply sheet.
Surfacing: (Optional)	Any of the approved surfacing/coating options listed in Table 4.
Maximum Design Pressure:	-105 psf (See General Limitation #7)



Membrane Type: SBS Modified

Deck Type 1: Wood, Non-Insulated

Deck Description: $\frac{15}{32}$ " or greater CDX plywood or wood plank attached with #10 wood screws spaced 4" o.c. at wood joists spaced maximum 24" o.c.

System Type E(24): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of Glasbase Base Sheet, Yosemite Venting Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet mechanically attached as described below.

Fastening #1: Fastened with Trufast #12 DP Fastener or Trufast #14 HD Fastener with Trufast 3" Metal Insulation Plate, OMG Heavy Duty fasteners with 3 in. Round Metal Plates, OMG AccuTrac Hextra with AccuTrac Flat Bottom plates, FlintFast #12 fasteners or FlintFast #14 fasteners with FlintFast 3" Insulation Plates spaced 6" o.c. at the 4" lap and 6" o.c. in four, equally spaced staggered center rows.

**Ply Sheet:
(Optional)** 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 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 or more plies of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied.

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

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

Maximum Design Pressure: -127.5 psf. (See General Limitation #7)

WOOD DECK SYSTEM LIMITATIONS:

1. A slip sheet is required with Ply 4 and Ply 6 when used as a mechanically fastened base or anchor sheet.

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