MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786)315-2590 F (786) 31525-99
www.miamidade.gov/economy

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

NOTICE OF ACCEPTANCE (NOA)

CertainTeed LLC.
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 Roof System over Recover 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. 20-0723.26 and consists of pages 1 through 74.
The submitted documentation was reviewed by Alex Tigera.

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Modified Bitumen
Material: APP/SBS
Deck Type: Recover
Maximum Design Pressure: **See Specific Deck Assemblies**

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
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.
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.
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.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
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 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 D6163, Grade G, Type I	Granule surfaced SBS Modified Bitumen membrane with fiberglass mat reinforcement for torch application.
Flintlastic Base 20 T	39 3/8"" x 33'; Roll Weight: 81lbs. (1 square)	ASTM D 6163, Grade S, Type I	Modified Bitumen, coated fiberglass base sheet for torch application.
Flintlastic Ultra Poly SMS Base Sheet	39 3/8" x 32' 10"; Roll weight: 90 lbs. (1 square)	ASTM D 6164, Grade S, Type I	Smooth surfaced SBS Modified Bitumen Membrane with non-woven polyester mat reinforcement for mop or torched applications.
Glasbase Base Sheet	39 3/8" 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.
Flintlastic APP Base T	39 3/8" x 65' 4"; Roll weight: 100 lbs. (2 squares)	ASTM D6509	Modified Bitumen coated fiberglass base sheet.
Flintlastic Ultra Glass SA	39 3/8" x 33'11"; Roll weight: 73 lbs. (1 square)	ASTM D1970	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 D4601, Grade S, Type II | ASTM D1970	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 D3019	Cold applied, SBS polymer modified asphalt adhesive.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
FlintBoard ISO	Polyisocyanurate foam insulation	CertainTeed LLC.
FlintBoard ISO Cold	Polyisocyanurate foam insulation	CertainTeed LLC.
$FlintBoard_H$ ISO	Polyisocyanurate foam insulation	CertainTeed LLC.
ACFoam-II	Polyisocyanurate foam insulation	Atlas Roofing Corp.
ACFoam-III	Polyisocyanurate foam insulation	Atlas Roofing Corp.
Expanded Polystyrene	Polystyrene Insulation	Generic
ISO 95+ GL	Polyisocyanurate foam insulation	Firestone Building Products Co.
H-Shield	Polyisocyanurate foam insulation	Hunter Panels LLC
DensDeck	Water resistant gypsum board	Georgia Pacific Gypsum LLC
DensDeck Prime	Water resistant gypsum board	Georgia Pacific Gypsum LLC
ENRGY 3	Polyisocyanurate foam insulation	Johns Manville Corp.
ENRGY 3 25 PSI	Polyisocyanurate foam insulation	Johns Manville Corp.
Ultra-Max	Polyisocyanurate roof insulation	RMax Operating, LCC
Multi-Max FA-3	Polyisocyanurate roof insulation	RMax Operating, LCC
SECUROCK Gypsum-Fiber Roof Board	Gypsum insulation	USG Corp.
FescoBoard	Expanded perlite and fiber insulation	Johns Manville Corp.
DuraBoard	Expanded mineral fiber insulation	Johns Manville Corp.
Structodek High Density Fiberboard Roof Insulation	Wood Fiber Insulation board	Blue Ridge Fiberboard Inc.

APPROVED FASTENERS/ADHESIVES:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Dekfast DF-#12-PH3	Insulation fastener for wood, steel and concrete decks	various	SFS Group USA, Inc.
2.	Dekfast DF-#14-PH3	Insulation fastener for wood, steel and concrete decks	various	SFS Group USA, Inc.
3.	Dekfast DF-#15-PH3	Insulation fastener for wood, steel and concrete decks	various	SFS Group USA, Inc.
4.	Dekfast PLT-H-2-7/8	Galvalume hex stress plate.	2 7/8" x 3 ¼"	SFS Group USA, Inc.
5.	Dekfast PLT-P-R-3	Polypropylene locking plate.	3" x 3 ¼"	SFS Group USA, Inc.
6.	#12 Standard Roofgrip	Insulation fastener for concrete, steel or wood decks.	various	OMG, Inc.
7.	3 in. Ribbed Galvalume Plate	Galvalume stress plate.	3" round	OMG, Inc.
8.	CD-10	Insulation fastener for concrete decks.	various	OMG, Inc.
9.	AccuTrac Plate	Galvalume stress plate.	3" round	OMG, Inc.
10.	ASAP Roofgrip Pre-Assembled System	Pre-assembled Insulation fastener and plate	various	OMG, Inc.
11.	OMG Plastic Plate	Polypropylene plastic plate	3" round	OMG, Inc.
12.	Trufast #14 HD Fastener	Coated, carbon steel fastener	various	Altenloh, Brinck & Co. U.S., Inc.
13.	Trufast 3" TL Insulation Plate	Galvalume steel plate	3" round	Altenloh, Brinck & Co. U.S., Inc.
14.	Trufast 3" Metal Insulation Plate	Galvalume steel plate	3.23" round	Altenloh, Brinck & Co. U.S., Inc.
15.	Trufast FM-90 Base Sheet Fastener	Base ply fastening systems for lightweight concrete decks.	2.7" x 1.7"	Altenloh, Brinck & Co. U.S., Inc.
16.	Polymer GypTec	Glass reinforced Nylon insulation fastener for gypsum & CWF decks.	various	OMG, Inc.
17.	Polymer GypTec Insulation Plate	Galvalume stress plate	3" round	OMG, Inc.
18.	Lite-Deck	Insulation fastener for CWF and Gypsum decks.	various	OMG, Inc.
19.	Lite-Deck Plate	Galvalume stress plate	3" round	OMG, Inc.

APPROVED FASTENERS/ADHESIVES:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
20.	Trufast Twin Loc-Nail Assembled Fastener	Galvanized stress plate and tube with integrated locking staple	2.7" round x various lengths	Altenloh, Brinck & Co. U.S., Inc.
21.	Dekfast PLT-R-2-4B	Galvalume AZ55 steel plate	2" round	SFS Group USA, Inc.
22.	Trufast #12 DP Fastener	Coated, carbon steel fastener	various	Altenloh, Brinck & Co. U.S., Inc.
23.	Trufast #15 EHD Fastener	Coated, carbon steel fastener	various	Altenloh, Brinck & Co. U.S., Inc.
24.	Trufast #21 SHD Fastener	Coated, carbon steel fastener	various	Altenloh, Brinck & Co. U.S., Inc.
25.	Trufast 2" Barbed Metal Seam Plate	Galvalume steel stress plate	various	Altenloh, Brinck & Co. U.S., Inc.
26.	Trufast 2.4" Scoop Seam Plate	Galvalume steel stress plate	2.4" round	Altenloh, Brinck & Co. U.S., Inc.
27.	Trufast 2-3/4" Barbed Metal Seam Plate (EHD)	Galvalume steel stress plate	2.75" round	Altenloh, Brinck & Co. U.S., Inc.
28.	Millennium One Step Foamable Adhesive	Polyurethane two component high rise insulation adhesive	1.5 liters	H.B. Fuller Company
29.	Millennium One Step Green Foamable Adhesive	Polyurethane two component high rise insulation adhesive	1.5 liters	H.B. Fuller Company
30.	Millennium PG-1 Low Viscosity Insulation Adhesive	Polyurethane two component low rise insulation adhesive	1.5 liters	H.B. Fuller Company
31.	ICP Adhesive CR-20	Polyurethane two component low rise insulation adhesive	Two kits (A = 40lb and B = 35lb cylinders)	ICP Adhesives & Sealants, Inc.
32.	OMG OlyBond 500 Adhesive	Spray polyurethane foam insulation adhesive	10 gal. bag-in-box set and 1.5 liters SpotShot cartridge	OMG, Inc.
33.	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.

System Number	Manufacturer	Application
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.	Gardner Asphalt Corp.	APOC #212 Fibered Aluminum Roof Coating applied at an application rate of 1.5 gal/sq.
5.	Gardner Asphalt Corp.	APOC #400 Sunbrite applied at an application rate of 3 gal./sq.

EVIDENCE SUBMITTED:

Test Agency/Identifier	Name	Report	Date
Factory Mutual Research Corp.	FM 4470	3Y8A1.AM	09/30/96
	FM 4470	0D3A3.AM	04/04/97
	FM 4470	1D7A4.AM	11/09/98
	FM 4470	2D0A0.AM	12/23/98
	FM 4450	2D5A9.AM	06/22/99
	FM 4470	3006025	12/28/01
	FM 4470	3012321	07/29/02
	FM 4470	3014502	04/04/03
	FM 4470	3014692	08/05/03
	FM 4450	3014751	08/27/03
	FM 4470	3024311	11/01/06
	FM 4470	3031350	09/27/07
	FM 4470	3031513	12/27/07
	FM 4470	3036182	07/31/09
	FM 4470	3037127	01/11/10
	FM 4470	3039046	06/15/10
	FM 4470	3039848	12/02/11
	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	97457-4	06/03/88
Momentum Technologies, Inc.	ASTM D 4601	AX31G8D	09/05/08
	ASTM D 3909 / D 4897	AX31G8C	09/05/08
	ASTM D 6164	AX31G8F	06/05/09
	ASTM D 6222	AX31G8G	06/05/09
Trinity|ERD	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 114	3521.07.04-R1	10/26/07
	TAS 114	3533.01.06-R1	10/26/07
	TAS 114	C8370.08.08	08/19/08
	TAS 117 (B) / ASTM D 6862	C8500SC.11.07-R1	08/07/09
	TAS 117 & TAS 114	C30560.03.10	03/18/10
	TAS 117 & TAS 114	C30560.06.10	06/10/10
	FM 4474 / TAS 114	C31420.08.10	09/21/10
	ASTM D 6164 / D 4798	C31410.01.11-2	01/10/11
	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

EVIDENCE SUBMITTED:

Test Agency/Identifier	Name	Report	Date
	ASTM D 4798	C31410.12.13	12/05/13
	ASTM D 6222	C40050.12.13-R1	12/31/13
	ASTM D 2178	C47250.03.14	03/26/14
	ASTM D 1876, TAS 114 (H), FM 4474	C45620.03.14	03/27/14
	FM 4474 / TAS 114 (J)	C46760.06.14	06/19/14
	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 4470 / TAS 114	C37830.07.12-R1	05/20/15
	ASTM D4601	CTR-SC8740.04.15-R2	04/21/15
	FM 4474 / TAS 114 (J)	CTR-SC8995.10.15	10/14/15
	FM 4474 (D) / UL1897 / 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	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
	FM 4474 (B) / TAS 114 (D)	3522.07.04-R1	12/22/16
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 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 6509	CTC-116-02-01	04/04/12
	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 6222	CTC 071-02-01	08/08/17
	ASTM D 6163	CTC-319-02-01	08/22/17

DECK STRESS ANALYSIS CALCULATIONS/REPORTS

Engineer/Agency	Identifier	Assemblies	Date
Robert Nieminen, P.E.	Signed/Sealed Calculations	A(5), B(4), B(5), C(4), C(6), C(8), C(10), C(11), D(2) through D(5), E(7)	12/15/16

APPROVED ASSEMBLIES

Membrane Type: APP Modified

Deck Type 7I: Recover, Insulated

Deck Description: Gypsum

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, Glasbase Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Flintlastic APP Base T mechanically attached to the deck as detailed below.

Fastening: Trufast FM-90 Base Sheet Fasteners spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 12" o.c.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
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**
Structodek High Density Fiberboard Roof Insulation		
Minimum ½" thick	**N/A**	**N/A**
FescoBoard		
Minimum ¾" 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 ft^2. 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/Ply Sheet: (Optional) One ply of All Weather/Empire Base Sheet, Glasbase 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 insulated substrate in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered or one ply of Flintlastic STA or Flintlastic APP Base T torch adhered.

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

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

Maximum Design Pressure: -45 psf (See General Limitation #9)

Original system came from:
FM 3Y8A1.AM, Construction #6 on pg. 10 of 11 applicable over a Recover deck (**MDP: -45 psf)**.

Membrane Type: SBS Modified

Deck Type 7I: Recover, Insulated

Deck Description: Gypsum

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, Glasbase Base Sheet, Flintlastic Base 20 or Flintlastic Poly SMS Base Sheet mechanically attached to the deck as detailed below.

Fastening: Trufast FM-90 Base Sheet Fasteners spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 12" o.c.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
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**
Structodek High Density Fiberboard Roof Insulation		
Minimum ½" thick	**N/A**	**N/A**
FescoBoard		
Minimum ¾" 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 ft^2. 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/Ply Sheet: (Optional) One ply of All Weather/Empire Base Sheet, Glasbase 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 insulated substrate in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or Flintlastic Ultra Poly SMS Base Sheet torch applied* or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered.
*Requires base sheet.

Membrane: One ply of Flintlastic GMS, Flintlastic FR-P, Flintlastic Premium FR-Por 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:	-45 psf (See General Limitation #9)

Membrane Type: APP Modified

Deck Type 7I: Recover, Insulated

Deck Description: Cementitious Wood Fiber over steel structural supports spaced 36" o.c. and secured with three, equally spaced, Dekfast DF-#14-PH3 fasteners with 2" plates spaced 16" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105. See Fastening Options for target MCRF.

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

All General and System Limitations apply.

Anchor Sheet: One ply of Glasbase Base Sheet, Flintlastic Base 20, All Weather/Empire Base Sheet, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet mechanically attached to the deck as detailed below:

Fastening: Fastening #1 (MCRF = 70 lbf): Trufast Twin Loc-Nail Assembled Fastener spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.

Fastening #2 (MCRF = 80 lbf): Trufast Twin Loc-Nail Assembled Fastener spaced 9" o.c. in 4" side lap and two staggered rows in center of the sheet, 9" o.c.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, ENRGY 3, Ultra-Max, H-Shield, FlintBoard$_H$ ISO		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
FescoBoard		
Minimum 0.75" thick	**N/A**	**N/A**
Structodek High Density Fiberboard Roof Insulation		
Minimum 0.5" 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 ft^2. 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, Glasbase Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved mopping 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, 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 STA or Flintlastic APP Base T torch adhered.
Membrane:	One ply of Flintlastic GTA or Flintlastic GTA-FR torch adhered to base sheet 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 7I: Recover, Insulated

Deck Description: Cementitious Wood Fiber over steel structural supports spaced 36" o.c. and secured with three, equally spaced, Dekfast DF-#14-PH3 fasteners with 2" plates spaced 16" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105. See Fastening Options for target MCRF.

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

All General and System Limitations apply.

Anchor Sheet: One ply of Glasbase Base Sheet, Flintlastic Base 20, All Weather/Empire Base Sheet, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet mechanically attached to the deck as detailed below.

Fastening: Fastening #1 (MCRF = 70 lbf): Trufast Twin Loc-Nail Assembled Fastener spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.

Fastening #2 (MCRF = 80 lbf): Trufast Twin Loc-Nail Assembled Fastener spaced 9" o.c. in 4" side lap and two staggered rows in center of the sheet, 9" o.c.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, ENRGY 3, Ultra-Max, H-Shield, FlintBoard$_H$ ISO		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
FescoBoard		
Minimum 0.75" thick	**N/A**	**N/A**
Structodek High Density Fiberboard Roof Insulation		
Minimum 0.5" 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 ft^2. 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, Glasbase Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved mopping 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, 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 Flintlastic Ultra Poly SMS Base Sheet torch applied or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered.
Membrane:	One ply of Flintlastic GMS, Flintlastic FR-P or Flintlastic FR Cap 30 applied to the base sheet or ply sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 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: APP Modified

Deck Type 7I: Recover, Insulated

Deck Description: Cementitious Wood Fiberover steel structural supports spaced 36" o.c. and secured with three, equally spaced, Dekfast DF-#14-PH3 fasteners with 2" plates spaced 16" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105. See Fastening Options for target MCRF.

System Type A(5): Anchor sheet mechanically fastened; all insulation layers adhered with approved asphalt.

All General and System Limitations apply.

Anchor Sheet: One ply of Glasbase Base Sheet, Flintlastic Base 20, All Weather/Empire Base Sheet, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet mechanically attached to the deck as detailed below.

Fastening: Fastening #1 (MCRF = 70 lbf) Trufast Twin Loc-Nail Assembled Fastener spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.

Fastening #2 (MCRF = 80 lbf) Trufast Twin Loc-Nail Assembled Fastener spaced 9" o.c. in 4" side lap and two staggered rows in center of the sheet, 9" o.c.

One or more layers of any of the following insulations:

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, ENRGY 3, Ultra-Max, H-Shield, FlintBoard$_H$ ISO		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK Gypsum-Fiber Roof Board		
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 ft^2. 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.

Membrane: One ply of Flintlastic GTA or Flintlastic GTA-FR torch adhered to base sheet 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 7I: Recover, Insulated

Deck Description: Cementitious Wood Fiberover steel structural supports spaced 36" o.c. and secured with three, equally spaced, Dekfast DF-#14-PH3 fasteners with 2" plates spaced 16" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105. See Fastening Options for target MCRF.

System Type A(6): Anchor sheet mechanically fastened; all insulation layers adhered with approved asphalt.

All General and System Limitations apply.

Anchor Sheet: One ply of Glasbase Base Sheet, Flintlastic Base 20, All Weather/Empire Base Sheet, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet mechanically attached to the deck as detailed below.

Fastening: Fastening #1 (MCRF = 70 lbf) Trufast Twin Loc-Nail Assembled Fastener spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.

Fastening #2 (MCRF = 80 lbf) Trufast Twin Loc-Nail Assembled Fastener spaced 9" o.c. in 4" side lap and two staggered rows in center of the sheet, 9" o.c.

One or more layers of any of the following insulations:

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, ENRGY 3, Ultra-Max, H-Shield, FlintBoard$_H$ ISO		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
SECUROCK Gypsum-Fiber Roof Board		
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 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, Glasbase Base Sheet, Flexiglas BaseSheet, 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 self-adhered

Membrane:	One ply of Flintlastic GMS, Flintlastic FR-P or Flintlastic FR Cap 30 applied to the base sheet or ply sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 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:	-60.0 psf (See General Limitation #7)

Membrane Type:	SBS Modified
Deck Type 7I:	Recover, Insulated
Deck Description:	Min. 2,500 psi structural concrete or concrete plank.
System Type A(7):	One or more layers of insulation 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**
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard$_H$ ISO Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
DensDeck, DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck in ½" to ¾" wide beads of Insta-Stik Quik Set Insulation Adhesive or Millennium One Step Foamable Insulation Adhesive, Millennium One Step Green Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation Adhesive spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet:	One or more plies of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied to the insulated substrate.
Ply Sheet: (Optional)	One ply of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied to base sheet.
Membrane:	One ply of Flintlastic FR Cap 30 T, torch applied to base or ply sheet.
Surfacing: (Optional)	Any of the approved surfacing/coating options listed in Table 4.
Maximum Design Pressure:	-157.5 psf (See General Limitation #9)

Membrane Type:	SBS Modified
Deck Type 7I:	Recover, Insulated
Deck Description:	Min. 2,500 psi structural concrete or concrete plank.
System Type A(8):	One or more layers of insulation 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**
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard$_H$ ISO Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
DensDeck, DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck in 1" wide ribbons of OMG OlyBond 500 Adhesive or OMG OlyBond 500 Green Adhesive, spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet:	One or more plies of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied to the insulated substrate.
Ply Sheet: (Optional)	One ply of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied to base sheet.
Membrane:	One ply of Flintlastic FR Cap 30 T, torch applied to base or ply sheet.
Surfacing: (Optional)	Any of the approved surfacing/coating options listed in Table 4.
Maximum Design Pressure:	-150 psf (See General Limitation #9)

Membrane Type: SBS Modified

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type A(9): One or more layers of insulation 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**
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard$_H$ ISO Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board 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 insulation. All insulation shall be adhered to the deck in full mopping of approved hot asphalt within the EVT range and at a rate of 25 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.

Base Sheet: One or more plies of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied to the insulated substrate.

Ply Sheet: (Optional) One ply of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied to base sheet.

Membrane: One ply of Flintlastic FR Cap 30 T, torch applied to base or ply sheet.

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

Maximum Design Pressure: -180 psf (See General Limitation #9)

Membrane Type:	SBS Modified
Deck Type 7I:	Recover, Insulated
Deck Description:	Min. 2,500 psi structural concrete or concrete plank.
System Type A(10):	One or more layers of insulation 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**
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard$_H$ ISO, ISO 95+ GL		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck in 3/4" – 1" wide beads of Insta-Stik Quik Set Insulation Adhesive or 1" wide ribbons of OMG OlyBond 500 Adhesive or OMG OlyBond 500 Green Adhesive, spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet:	One or more plies of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied to the insulated substrate.
Ply Sheet: (Optional)	One ply of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied to base sheet.
Membrane:	One ply of Flintlastic FR Cap 30 T, torch applied to base or ply sheet.
Surfacing: (Optional)	Any of the approved surfacing/coating options listed in Table 4.
Maximum Design Pressure:	-120 psf (See General Limitation #9)

Membrane Type: SBS Modified

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type A(11): One or more layers of insulation 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**
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard$_H$ ISO Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
SECUROCK Gypsum-Fiber Roof Board, DensDeck, DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck in ½" – ¾" wide beads of Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive, Millennium PG-1 Low Viscosity Insulation Adhesive or in full coverage of OMG OlyBond 500 Adhesive or OMG OlyBond 500 Green Adhesive applied at a rate of 1 gal/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet: One or more plies of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied to the insulated substrate.

Ply Sheet: (Optional) One ply of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied to base sheet.

Membrane: One ply of Flintlastic FR Cap 30 T, torch applied to base or ply sheet.

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

Maximum Design Pressure: -150 psf (See General Limitation #9)

Membrane Type: SBS Modified

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type A(12): One or more layers of insulation 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/ft^2**
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, ISO 95+ GL, Multi-Max FA-3 Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ½" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck in 3" – 3.5" wide ribbons of ICP Adhesive CR-20, spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet: One or more plies of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied to the insulated substrate.

Ply Sheet: (Optional) One ply of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied to base sheet.

Membrane: One ply of Flintlastic FR Cap 30 T, torch applied to base or ply sheet.

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

Maximum Design Pressure: -180 psf (See General Limitation #9)

Membrane Type: APP/SBS Modified

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank.

System Type A(13): Base sheet and insulation 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/ft^2
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, ENRGY 3, Multi-Max-3, H-Shield, FlintBoard$_H$ ISO Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
FescoBoard Minimum 0.75" 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 insulation. All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. 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, Glasbase Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved mopping 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, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or one or more plies of Flintglas Premium Ply 6 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 one ply of Flintlastic Ultra Poly SMS Base Sheet, Flintlastic STA* or Flintlastic APP Base T* torch adhered.
**only with an APP torch applied membrane*

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

Or

One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P or Flintlastic FR Cap 30 applied to the base sheet or ply sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 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:	-412 psf. (See General Limitation #9)

Membrane Type: APP/SBS Modified

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank.

System Type A(14): Base sheet and insulation 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/ft^2**
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, ENRGY 3, Multi-Max-3, H-Shield, FlintBoard$_H$ ISO Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DuraBoard Minimum 0.5" 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 insulation. All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. 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, Glasbase Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved mopping 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, 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 one ply of Flintlastic Ultra Poly SMS Base Sheet, Flintlastic STA* or Flintlastic APP Base T* torch adhered.
**(only with an APP torch applied membrane)*

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

Or

One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P or Flintlastic FR Cap 30 applied to the base sheet or ply sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 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:	-430 psf. (See General Limitation #9)

Membrane Type: APP Modified

Deck Type 7I: Recover, Insulated

Deck Description: 19/32" or greater plywood or wood plank, 18-22 ga. steel deck or structural concrete or concrete plank.

System Type B(1): Base layers 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
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, ENRGY 3, ENRGY 3 25 PSI, H-Shield, FlintBoard$_H$ ISO		
Minimum 1.5" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
FescoBoard		
Minimum ¾" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
Structodek High Density Fiberboard Roof Insulation		
Minimum ½" thick	**Approved Fastener for Deck Type**	**1:2 ft²**

Note: Base layers of insulation shall be mechanically attached using the fastener density listed. 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 Protocol TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Structodek High Density Fiberboard Roof Insulation		
Minimum ½" thick	**N/A**	**N/A**
FescoBoard		
Minimum ¾" thick	**N/A**	**N/A**
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: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved mopping 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, 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 with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered or one ply of Flintlastic STA or Flintlastic APP Base T torch adhered.
Membrane:	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:	-45 psf (See General Limitation #9)

Membrane Type:	SBS Modified
Deck Type 7I:	Recover, Insulated
Deck Description:	19/32" or greater plywood or wood plank,18-22 ga. steel deck or structural concrete or concrete plank.
System Type B(2):	Base layers 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**
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, ENRGY 3, ENRGY 3 25 PSI, H-Shield, FlintBoard$_H$ ISO		
Minimum 1.5" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
FescoBoard		
Minimum ¾" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
Structodek High Density Fiberboard Roof Insulation		
Minimum ½" thick	**Approved Fastener for Deck Type**	**1:2 ft²**

Note: Base layers of insulation shall be mechanically attached using the fastener density listed. 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 Protocol TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Structodek High Density Fiberboard Roof Insulation		
Minimum ½" thick	**N/A**	**N/A**
FescoBoard		
Minimum ¾" thick	**N/A**	**N/A**
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: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved mopping 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, 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 Flintlastic Ultra Poly SMS Base Sheet torch applied or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered.
Membrane:	One ply of Flintlastic GMS, Flintlastic FR-P, Flintlastic Premium FR-P 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:	-45 psf (See General Limitation #9)

Membrane Type: APP Modified

Deck Type 7I: Recover, Insulated

Deck Description: $^{15}/_{32}$" CDX plywood mechanically attached to structural supports spaced 24-inch with 8 screws spaced 6-inch o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 179 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105.

System Type B(3): 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.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard$_H$ ISO Minimum 1.5" thick	**15 with 23**	**1:1.33 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	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
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 or 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 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: -67.5 psf (See General Limitation #7)

Membrane Type: APP Modified

Deck Type 7I: Recover, Insulated

Deck Description: 22 ga., Type B, Yield Strength 46 ksi, steel deck is secured at 6 ft. o.c. spans with Tek/5 fasteners spaced 6" o.c. Side laps are secured with Tek/1 fasteners at 18" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 217 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type B(4): 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.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard$_H$ ISO Minimum 1.5" thick	**15 with 23**	**1:1.45 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	Insulation Fasteners (Table 3)	Fastener Density/ft²
SECUROCK Gypsum-Fiber Roof Board Minimum ¼" 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 base sheet.

Membrane: 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.

Maximum Design Pressure: -75 psf (See General Limitation #7)

Membrane Type:	SBS Modified
Deck Type 7I:	Recover, Insulated
Deck Description:	22 ga., Type B, Yield Strength 46 ksi, steel deck is secured at 6 ft. o.c. spans with Tek/5 fasteners spaced 6" o.c. Side laps are secured with Tek/1 fasteners at 24" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 240 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
System Type B(5):	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.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard$_H$ ISO Minimum 1.5" thick	**15 with 23**	**1:1.6 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	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
SECUROCK Gypsum-Fiber Roof Board Minimum ¼" 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, 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 Poly SMS Base, Flintlastic Ultra Poly SMS Base or Flintlastic Base 20 adhered to the insulated substrate with FlintBond Brush at a rate of 1.0-1.5 gal/sq.
Ply Sheet: (Optional)	One ply of Flintlastic Poly SMS Base, Flintlastic Ultra Poly SMS Base or Flintlastic Base 20 adhered to base sheet with Flintbond Brush at a rate of 1.0-1.5 gal/sq.
Membrane:	One ply of Flintlastic FR Cap 30, Flintlastic FR-P or Flintlastic Premium FR-P adhered to base or ply sheet with FlintBond Brush at a rate of 1.0-1.5 gal/sq.

Surfacing: (Optional)	Any of the approved surfacing/coating options listed in Table 4.
Maximum Design Pressure:	-75 psf (See General Limitation #7)

Membrane Type:	APP Modified
Deck Type 7I:	Recover, Insulated
Deck Description:	$^{15}/_{32}$" CDX plywood mechanically attached to structural supports spaced 24-inch with 8 screws spaced 6-inch o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 239 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105.
System Type B(6):	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.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard$_H$ ISO Minimum 1.5" thick	**15 with 23**	**1:1.33 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	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
SECUROCK Gypsum-Fiber Roof Board Minimum ¼" 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 base sheet.
Membrane:	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.
Maximum Design Pressure:	-90 psf (See General Limitation #7)

Membrane Type: APP Modified

Deck Type 7I: Recover, Insulated

Deck Description: 19/32" or greater plywood or wood plank, 18-22 ga. steel deck or structural concrete or concrete plank.

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.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
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**
Any Approved High Density Wood Fiberboard Listed in Table 2 **Minimum ½" thick**	**N/A**	**N/A**
Any Approved Perlite Insulation Listed in Table 2 **Minimum ¾" thick**	**N/A**	**N/A**
DensDeck, DensDeck Prime **Minimum ¼" thick**	**N/A**	**N/A**

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

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Any Approved Perlite Insulation Listed in Table 2 **Minimum ¾" thick**	**Approved Fastener for Deck Type**	**1:2 ft²**
DensDeck, DensDeck Prime **Minimum ¼" thick**	**Approved Fastener for Deck Type**	**1:2 ft²**
Any Approved High Density Wood Fiberboard Listed in Table 2 **Minimum ½" thick**	**Approved Fastener for Deck Type**	**1:2 ft²**

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 All Weather/Empire Base Sheet, Glasbase Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved mopping 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, 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 one ply of Flintlastic STA or Flintlastic APP Base T torch adhered.
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:	-45 psf (See General Limitation #9)

Membrane Type: SBS Modified

Deck Type 7I: Recover, Insulated

Deck Description: 19/32" or greater plywood or wood plank, 18-22 ga. steel deck or structural concrete or concrete plank.

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.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
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**
Any Approved High Density Wood Fiberboard Listed in Table 2		
Minimum ½" thick	**N/A**	**N/A**
Any Approved Perlite Insulation Listed in Table 2		
Minimum ¾" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime		
Minimum ¼" thick	**N/A**	**N/A**

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

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Any Approved Perlite Insulation Listed in Table 2		
Minimum ¾" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
DensDeck, DensDeck Prime		
Minimum ¼" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
Any Approved High Density Wood Fiberboard Listed in Table 2		
Minimum ½" thick	**Approved Fastener for Deck Type**	**1:2 ft²**

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 All Weather/Empire Base Sheet, Glasbase Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved mopping 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, 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 Flintlastic Ultra Poly SMS Base Sheet torch applied or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered.
Membrane:	One ply of Flintlastic GMS, Flintlastic FR-P, Flintlastic Premium FR-P 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:	-45 psf (See General Limitation #9)

Membrane Type: SBS/APP Modified

Deck Type 7I: Recover, Insulated

Deck Description: Minimum $^{15}/_{32}$" APA rated CDX plywood at 24" spans attached with 8d ring shank nails spaced 6" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 168 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105.

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.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
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.

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold Minimum 1.5" thick	**13 with 15**	**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 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 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 7I: Recover, Insulated

Deck Description: 22 ga., Type B, Yield Strength 46 ksi steel deck is secured at 6 ft. o.c. spans with Tek/5 fasteners spaced 6" o.c. Side laps are secured with Tek/1 fasteners at 18" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 174 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(4): All layers of insulation simultaneously attached.

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/ft^2
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 attached; see top layer below for fasteners and density.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	**16 with 18**	**1:1.45 ft²**

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 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: -60 psf (See General Limitation #7)

Membrane Type: SBS/APP Modified

Deck Type 7I: Recover, Insulated

Deck Description: Min. 22 ga., Type B, Yield Strength 50.6 ksi, steel deck is secured at 6 ft. o.c. spans with Tek/5 fasteners spaced 6" o.c. Side laps are secured with Tek/1 fasteners at 18" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 240 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(5): All layers of insulation simultaneously attached.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
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.

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold Minimum 1.5" thick	**10 with 11 or 17 with 18**	**1:1.78 ft²**

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 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 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:	-67.5 psf (See General Limitation #7)

Membrane Type:	APP Modified
Deck Type 7I:	Recover, Insulated
Deck Description:	$^{15}/_{32}$" CDX plywood mechanically attached to structural supports spaced 24-inch with 8 screws spaced 6-inch o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 199 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105.
System Type C(6):	All layers of insulation simultaneously attached.

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**
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.

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard$_H$ ISO Minimum 1.5" thick	**15 with 23**	**1:1.33 ft²**

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 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:	APP Modified
Deck Type 7I:	Recover, Insulated
Deck Description:	22 ga., Type B, Yield Strength 46 ksi, steel deck is secured at 6 ft. o.c. spans with Tek/5 fasteners spaced 6" o.c. Side laps are secured with Tek/1 fasteners at 18" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 217 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
System Type C(7):	All layers of insulation simultaneously attached.

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**
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.

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard$_H$ ISO Minimum 1.5" thick	**15 with 23**	**1:1.45 ft²**

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 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 psf (See General Limitation #7)

Membrane Type: SBS/APP Modified

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type C(8): Layer of insulation mechanically attached, optional thermal barrier loose laid.

All General and System Limitations apply.

Thermal Barrier: (Optional) Min. ¼" thick DensDeck, SECUROCK Gypsum-Fiber Roof Board loose laid on deck.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard$_H$ ISO Minimum 1.5" thick	**13 with 15**	**1:1.45 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).

Base Sheet: One ply of Flintlastic Ultra Glass SA, self-adhered to the insulated substrate.

Membrane: One ply of Flintlastic GMS or Flintlastic Premium FR-P adhered to base sheet with approved mopping asphalt applied within the EVT range and at a rate of 20-25 lb/sq. or Flintlastic FR Cap 30 T torch adhered to base sheet.
Or
One ply of Flintlastic GTA or Flintlastic GTA-FR torch adhered to base sheet.

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

Maximum Design Pressure: -75 psf (See General Limitation #7)

Membrane Type: SBS/APP Modified

Deck Type 7I: Recover, Insulated

Deck Description: Min. 22 ga., Type B, Yield Strength 50.6 ksi, steel deck is secured at 6 ft. o.c. spans with Tek/5 fasteners spaced 6" o.c. Side laps are secured with Tek/1 fasteners at 18" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 264 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(9): All layers of insulation simultaneously attached.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
SECUROCK Gypsum-Fiber Roof Board Minimum 0.5" thick	**N/A**	**N/A**

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

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
SECUROCK Gypsum-Fiber Roof Board Minimum 0.5" thick	**13 with 15**	**1:1.6 ft²**

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 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 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:	-82.5 psf (See General Limitation #7)

Membrane Type: APP Modified

Deck Type 7I: Recover, Insulated

Deck Description: 22 ga., Type F, Grade 80 steel deck is secured at 6 ft. o.c. spans with Tek/5 fasteners and ¾" washers per fixing point spaced 6" o.c. Side laps are secured with Tek/1 fasteners at 12" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 240 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 240 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(10): All layers of insulation simultaneously attached.

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
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 attached; see top layer below for fasteners and density.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	**12 with 13 or 17 with 19**	**1:1 ft²**

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 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: -120 psf (See General Limitation #7)

Membrane Type:	SBS Modified
Deck Type 7I:	Recover, Insulated
Deck Description:	Minimum $^{15}/_{32}$" APA rated CDX plywood at 24" spans attached with 8d ring shank nails spaced 6" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 52 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105.
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.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
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, Flintlastic Base 20, 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 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 – 1.5 gal/sq to base sheet.
Membrane:	One ply of Flintlastic FR Cap 30, Flintlastic Premium FR-P or Flintlastic GMS applied in FlintBond Brush at a rate of 1 – 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 7I: Recover, Insulated

Deck Description: Min. 22 ga., Type B, Yield Strength 50.6 ksi, steel deck is secured at 6 ft. o.c. spans with Tek/5 fasteners spaced 6" o.c. Side laps are secured with Tek/1 fasteners at 18" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 88 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

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.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Any Approved Polyisocyanurate Listed in Table 2 Minimum 1.0" 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 5 ft. All layers of insulation and base sheet shall be simultaneiously fastened. See base sheet below for fasteners and density.

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

Fastening #1: Trufast #14 HD Fasteners with Trufast 3" Metal Insulation Plates spaced 6" o.c. at the 4" wide laps and 12" 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 – 1.5 gal/sq to base sheet.

Membrane: One ply of Flintlastic FR Cap 30, Flintlastic FR-P, Flintlastic Premium FR-P or Flintlastic GMS applied in FlintBond Brush at a rate of 1 – 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: -75 psf. (See General Limitation #7)

Membrane Type: APP/SBS Modified

Deck Type 7I: Recover, Insulated

Deck Description: 22 ga., Type B, Yield Strength 49.3 ksi, steel deck is secured at 6 ft. o.c. spans with Traxx/5 screws spaced 6" o.c. Side laps are secured with Traxx/1 screws at 24" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105. See Fastening Options for target MCRF.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type D(3): 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.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold Minimum 2.0" 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 5 ft. All layers of insulation and base sheet shall be simultaneiously fastened. See base sheet below for fasteners and density.

Base Sheet: One ply of Flintlastic Ultra Poly SMS Base Sheet Base Sheet mechanically attached as detailed in Fastening below. Lap shall be heat welded.

Fastening #1: Trufast #15 EHD Fasteners or Trufast #21 SHD Fasteners with Trufast 2" Barbed Metal Seam Plates, Trufast 2.4" Barbed Metal Seam Plates, Trufast 2.4" Scoop Seam Plates or Trufast 2-3/4" Barbed Metal Seam Plates (EHD) spaced 12" o.c. in a 4" side lap. The lap is heat welded closed encapsulating the fastener row.
**The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 310 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105.*
***Steel deck is attached to structural supports with Traxx/5 screws (one screw per bearing point).*
(Maximum Design Pressure -52.5 psf; See General Limitation #7)

Fastening #2:	Trufast #15 EHD Fasteners or Trufast #21 SHD Fasteners with Trufast 2.4” Scoop Seam Plates or Trufast 2-3/4” Barbed Metal Seam Plates (EHD) 12” o.c. in a 4" side lap. The lap is heat welded closed encapsulating the fastener row. **The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 398 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105.* ***Steel deck is attached to structural supports with Traxx/5 screws (one screw per bearing point).* ***(Maximum Design Pressure -67.5 psf; See General Limitation #7)***
Fastening #3:	Trufast #15 EHD Fasteners or Trufast #21 SHD Fasteners with Trufast 2.4” Scoop Seam Plates or Trufast 2-3/4” Barbed Metal Seam Plates (EHD) spaced 6” o.c. in a 4" side lap. The lap is heat welded closed encapsulating the fastener row. **The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 332 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105.* ***Steel deck is attached to structural supports with Traxx/5 screws with ¾” steel washers (one screw/washer per bearing point).* ***(Maximum Design Pressure -112.5 psf; See General Limitation #7)***
Ply Sheet (Optional):	One ply of Flintlastic Ultra Poly SMS Base Sheet torch-applied to base sheet.
Membrane:	One ply of Flintlastic GTA or Flintlastic GTA-FR torch-applied to base or ply sheet.
Surfacing: (Optional)	Any of the approved surfacing/coating options listed in Table 4.
Maximum Design Pressure:	See Fastening Above.

Membrane Type: SBS Modified

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2,500 psi concrete; or 18-22 ga., Type B, Grade 80, steel deck is secured at 5 ft. o.c. spans with Traxx/5 screws spaced 6" o.c. Side laps are secured with Traxx/1 screws at 20" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 221 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type D(4): 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.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, ENRGY 3, H-Shield, FlintBoard$_H$ ISO, Multi-Max FA-3		
Minimum 1" thick	**N/A**	**N/A**
Any Approved Expanded Polystyrene (min 1.25 pcf) Listed in Table 2		
Minimum 1" thick	**N/A**	**N/A**
Any Approved Perlite Insulation Listed in Table 2		
Minimum ¾" thick	**N/A**	**N/A**
Any Approved High Density Wood Fiberboard Listed in Table 2		
Minimum ½" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum ¼" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, ENRGY 3, Multi-Max FA-3, H-Shield, FlintBoard$_H$ ISO		
Minimum 1" thick	**N/A**	**N/A**
Any Approved Expanded Polystyrene (min 1.25 pcf) Listed in Table 2		
Minimum 1" thick	**N/A**	**N/A**
Any Approved High Density Wood Fiberboard Listed in Table 2		
Minimum ½" thick	**N/A**	**N/A**

Any Approved Perlite Insulation Listed in Table 2 **Minimum ¾" thick**	**N/A**	**N/A**
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board **Minimum ¼" thick**	**N/A**	**N/A**

Note: Top 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 Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet, mechanically attached as detailed below:
Fastening #1:	Dekfast DF-#14-PH3 with Dekfast PLT-H-2-7/8 plates, or Trufast #14 HD Fasteners with Trufast 3" Metal Insulation Plates at 12" o.c. in the 4" wide lap and 12" o.c. in two equally spaced staggered rows in the field.
Ply Sheet: (Optional)	One ply of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied to base sheet.
Membrane:	One ply of Flintlastic FR Cap 30 T, torch applied to base or ply sheet.
Surfacing: (Optional)	Any of the approved surfacing/coating options listed in Table 4.
Maximum Design Pressure:	-112.5 psf (See General Limitation #7)

Membrane Type: APP/SBS Modified

Deck Type 7I: Recover, Insulated

Deck Description: 22 ga., Type B, Grade 80, steel deck is secured at 6 ft. o.c. spans with Traxx/5 screws spaced 6" o.c. Side laps are secured with Traxx/1 screws at 24" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 243 lbf. When tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type D(5): 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.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold Minimum 2.0" 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 5 ft. All layers of insulation and base sheet shall be simultaneiously fastened. See base sheet below for fasteners and density.

Base Sheet: One ply of Flintlastic Ultra Poly SMS Base Sheet Base Sheet mechanically attached as detailed in Fastening below. Lap shall be heat welded.

Fastening #1: Trufast #15 EHD Fasteners or Trufast #21 SHD Fasteners with Trufast 2.4" Scoop Seam Plates or Trufast 2-3/4" Barbed Metal Seam Plates (EHD) spaced 6" o.c. in a 4" side lap. The lap is heat welded closed encapsulating the fastener row.

Ply Sheet (Optional): One ply of Flintlastic Ultra Poly SMS Base Sheet torch-applied to base sheet.

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

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

Maximum Design Pressure: -165 psf. (See General Limitation #7)

Membrane Type:	SBS Modified
Deck Type 7:	Recover, Non-Insulated
Deck Description:	Minimum $^{15}/_{32}$" APA rated CDX plywood at 24" spans attached with 8d ring shank nails spaced 6" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 52 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105.
System Type E(1):	Base sheet mechanically fastened

All General and System Limitations apply.

Base Sheet:	One ply of Glasbase Base Sheet, Flintlastic Base 20, 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 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 – 1.5 gal/sq to base sheet.
Membrane:	One ply of Flintlastic FR Cap 30, Flintlastic FR-P, Flintlastic Premium FR-P or Flintlastic GMS applied in FlintBond Brush at a rate of 1 – 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 7:	Recover, Non-Insulated
Deck Description:	Gypsum or Cementitious Wood Fiberover steel structural supports spaced 36" o.c. and secured with three, equally spaced, Dekfast DF-#14-PH3 fasteners with 2" plates spaced 16" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105. See Fastening Options for target MCRF.
System Type E(2):	Base sheet mechanically fastened, over smooth surface roof system only.

All General and System Limitations apply.

Base Sheet:	One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Flintlastic APP Base T* fastened to the deck as detailed below. **Only with Trufast FM-90 Base Sheet Fasteners.*
Fastening *(gypsum):*	Fastening #1: Trufast FM-90 Base Sheet Fasteners spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 12" o.c. ***(Maximum Design Pressure –60 psf, See General Limitation #9)***
Fastening *(cwf):*	Fastening #1, MCRF = 70 lbf: Trufast Twin Loc-Nail Assembled Fastener spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c. ***(Maximum Design Pressure –67.5 psf, See General Limitation #7)*** Fastening #2, MCRF = 80 lbf: Trufast Twin Loc-Nail Assembled Fastener spaced 9" o.c. in 4" side lap and two staggered rows in center of the sheet, 9" o.c. ***(Maximum Design Pressure –60 psf, See General Limitation #7)***
Ply Sheet: (Optional)	One ply of All Weather/Empire Base Sheet, Glasbase 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 one ply of Flintlastic STA or Flintlastic APP Base T torch adhered.
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:	See Fastening Requirements above.

Membrane Type:	SBS Modified
Deck Type 7:	Recover, Non-Insulated
Deck Description:	Gypsum or Cementitious Wood Fiberover steel structural supports spaced 36" o.c. and secured with three, equally spaced, Dekfast DF-#14-PH3 fasteners with 2" plates spaced 16" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105. See Fastening Options for target MCRF.
System Type E(3):	Base sheet mechanically fastened, over smooth surface roof system only.

All General and System Limitations apply.

Base Sheet:	One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet* fastened to the deck as detailed below. **Only with Trufast Twin Loc-Nail* Assembled Fastener
Fastening *(gypsum):*	Fastening #1: Trufast FM-90 Base Sheet Fasteners spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 12" o.c. ***(Maximum Design Pressure –60 psf, See General Limitation #9)***
Fastening *(cwf):*	Fastening #1, MCRF = 70 lbf: Trufast Twin Loc-Nail Assembled Fastener spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c. ***(Maximum Design Pressure –67.5psf, See General Limitation #7)*** Fastening #2, MCRF = 80 lbf: Trufast Twin Loc-Nail Assembled Fastener spaced 9" o.c. in 4" side lap and two staggered rows in center of the sheet, 9" o.c. ***(Maximum Design Pressure –60 psf, See General Limitation #7)***
Ply Sheet: (Optional)	One ply of All Weather/Empire Base Sheet, Glasbase 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 Flintlastic Ultra Poly SMS Base Sheet torch applied or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered.
Membrane:	One ply of Flintlastic GMS, Flintlastic FR-P, Flintlastic PremiumFR-P 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:	See Fastening Requirements above.

Membrane Type:	APP Modified
Deck Type 7:	Recover, Non-Insulated
Deck Description:	Cementitious Wood Fiber over steel structural supports spaced 36” o.c. and secured with three, equally spaced, Dekfast DF-#14-PH3 fasteners with 2” plates spaced 16” o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105. See Fastening Options for target MCRF
System Type E(4):	Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet:	One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet mechanically fastened to the deck as detailed below.
Fastening #1:	(MCRF = 70 lbf) Trufast Twin Loc-Nail Assembled Fastener spaced 7” o.c. in 4” side lap and two staggered rows in center of the sheet, 7” o.c. ***(Maximum Design Pressure –67.5 psf, See General Limitation #7)***
Fastening #2:	(MCRF = 80 lbf) Trufast Twin Loc-Nail Assembled Fastener spaced 9” o.c. in 4” side lap and two staggered rows in center of the sheet, 9” o.c. ***(Maximum Design Pressure –60 psf, See General Limitation #7)***
Ply Sheet: (Optional)	One ply of All Weather/Empire Base Sheet, Glasbase 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 one ply of Flintlastic STA or Flintlastic APP Base T torch adhered.
Membrane:	One ply of Flintlastic GTA or Flintlastic GRA-FR torch adhered to base or ply sheet.
Surfacing: (Optional)	Any of the approved surfacing/coating options listed in Table 4.
Maximum Design Pressure:	See Fastening Requirements above.

Membrane Type:	SBS Modified
Deck Type 7:	Recover, Non-Insulated
Deck Description:	Cementitious Wood Fiber over steel structural supports spaced 36” o.c. and secured with three, equally spaced, Dekfast DF-#14-PH3 fasteners with 2” plates spaced 16” o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105. See Fastening Options for target MCRF.
System Type E(5):	Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet:	One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet mechanically fastened to the deck as detailed below.
Fastening #1:	(MCRF = 70 lbf) Trufast Twin Loc-Nail Assembled Fastener spaced 7” o.c. in 4” side lap and two staggered rows in center of the sheet, 7” o.c. ***(Maximum Design Pressure –67.5 psf, See General Limitation #7)***
Fastening #2:	(MCRF = 80 lbf) Trufast Twin Loc-Nail Assembled Fastener spaced 9” o.c. in 4” side lap and two staggered rows in center of the sheet, 9” o.c. ***(Maximum Design Pressure –60 psf, See General Limitation #7)***
Ply Sheet: (Optional)	One ply of All Weather/Empire Base Sheet, Glasbase 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 Flintlastic Ultra Poly SMS Base Sheet torch applied or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self-adhered.
Membrane:	One ply of Flintlastic GMS, Flintlastic FR-P, Flintlastic Premium FR-P 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:	See Fastening Requirements above.

Membrane Type:	SBS Modified
Deck Type 7:	Recover, Non-Insulated
Deck Description:	Minimum $^{15}/_{32}$" thick APA rated plywood attached using #8 wood screws spaced 6” o.c. at wood joists spaced maximum 24” o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 33 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105.
System Type E(6):	Base sheet mechanically fastened

All General and System Limitations apply.

Base Sheet:	One ply of Glasbase Base Sheet, All Weather/Empire 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, 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, 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-P, Flintlastic Premium FR-P 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 7:	Recover, Non-Insulated
Deck Description:	Min. 22 ga., Type B, Yield Strength 50.6 ksi, steel deck is secured at 6 ft. o.c. spans with 5/8" diameter puddle welds spaced 6" o.c. Side laps are secured with Teks 1 fasteners spaced 18" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 88 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
System Type E(7):	Base sheet mechanically fastened

All General and System Limitations apply.

Base Sheet:	One ply of Glasbase Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base and Flintlastic Ultra Poly SMS Base, mechanically attached as described below.
Fastening #1:	Trufast #14 HD Fasteners with Trufast 3" Metal Insulation Plates spaced 6" o.c. at the 4" wide laps and 12" 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 base sheet.
Membrane:	One ply of Flintlastic FR Cap 30, 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:	-75 psf. (See General Limitation #7)

Membrane Type:	SBS Modified
Deck Type 7:	Recover, Non-Insulated
Deck Description:	Minimum $^{15}/_{32}$" thick APA rated plywood attached using #10 wood screws spaced 6” o.c. at wood joists spaced maximum 24” o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 96 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105.
System Type E(8):	Base sheet mechanically fastened

All General and System Limitations apply.

Base Sheet:	One ply of Glasbase Base Sheet, All Weather/Empire 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 Plate 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, 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, 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-P, Flintlastic Premium FR-Por 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 7:	Recover, Non-Insulated
Deck Description:	Min. 2,500 psi structural concrete or concrete plank.
System Type F(1):	Base sheet adhered with approved asphalt over existing BUR.

All General and System Limitations apply.

Base Sheet:	One ply of Glasbase Base Sheet or Flintlastic Base 20 adhered to the existing BUR with FlintBond Brush at 1.5 gal./sq.
Ply Sheet: (Optional)	One ply of Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet adhered to base sheet with FlintBond Brush at a rate of 1.5 gal/sq.
Membrane:	One ply of Flintlastic FR Cap 30 or Flintlastic FR-P adhered to base or ply sheet with FlintBond Brush at a rate of 1.5 gal./sq.
Surfacing: (Optional)	Any of the approved surfacing/coating options listed in Table 4.
Maximum Design Pressure:	-187.5 psf (See General Limitation #9)

Membrane Type:	SBS Modified
Deck Type 7:	Recover, Non-Insulated
Deck Description:	Min. 2,500 psi structural concrete or concrete plank.
System Type F(2):	Base sheet heat welded to primed substrate

All General and System Limitations apply.

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet.

Base Sheet:	One or more plies of Flintlastic Base 20 T, torch applied to the non-insulated substrate.
Ply Sheet: (Optional)	One ply of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied to base sheet.
Membrane:	One ply of Flintlastic FR Cap 30 T, torch applied to base or ply sheet.
Surfacing: (Optional)	Any of the approved surfacing/coating options listed in Table 4.
Maximum Design Pressure:	-542.5 psf (See General Limitation #9)

RECOVER SYSTEM LIMITATIONS:

1 All System Limitations and General Limitations shall apply. See specific deck type Notice of Acceptance for deck type System Limitations.

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