MIAMI-DADE

BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908

NOTICE OF ACCEPTANCE (NOA)

CertainTeed Corporation (PA)
1400 Union Meeting Road
Blue Bell, PA 19422

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) 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 Division (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. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division 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 and 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 renews NOA No. 04-1129.07 and consists of pages 1 through 54.
The submitted documentation was reviewed by Jorge L. Acebo..

MIAMI-DADE COUNTY APPROVED

NOA No.: 08-0227.12
Expiration Date: 05/29/13
Approval Date: 05/15/08

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Modified Bitumen
Material:	APP/SBS
Deck Type:	Recover
Maximum Design Pressure	**-630 psf**

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
All Weather/Empire Base Sheet	36" x 72'; Roll weight: 86 lbs. (2 squares)	ASTM D 2626 UL Type 15	Asphalt coated, organic base sheet.
Flexiglas™ Base Sheet	36" x 108'; Roll weight: 90 lbs. (3 squares)	UL Type G2 ASTM D 4601, type II	Modified Bitumen, coated fiberglass base sheet.
Flexiglas™ FR Base Sheet	39 3/8" x 50'; Roll weight: 90 lbs. (1.5 squares)	UL Type G2 ASTM D 4601, type II	Modified Bitumen, coated fiberglass base sheet.
Flintglas® Ply Sheet Type IV or VI	36" x 180'; Roll weight: 40/55 lbs. (5 squares)	ASTM D 2178 Type IV or VI UL Type G1	Fiberglass, asphalt impregnated ply sheet.
Flintlastic STA	39 3/8" x 33'; Roll weight: 90 lbs. (1 square)	ASTM D 5147	Smooth surfaced, APP Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application.
Flintlastic STA Plus 5.0	39 3/8" x 33'; Roll weight: 95 lbs. (1 square)	ASTM D 5147	Smooth surfaced, APP Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application.
Flintlastic GTA, GTA-FR or Flintlastic Diamond GTA	39 3/8" x 33' 3"; Roll weight: 105 lbs (1 square)	ASTM D 5147	Granule surfaced, APP Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application.
Flintlastic GTS	39 3/8" x 24'9"; Roll weight: 92 lbs. (¾ square)	ASTM D 5147	Granule surfaced, SBS Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application.
Flintlastic GMS/GMS Premium	39 3/8" x 34' 2"; Roll weight: 100/105 lbs. (1 square)	ASTM D 5147	Granule surfaced SBS Modified Bitumen membrane with non-woven polyester mat reinforcement for mop application.
Flintlastic FR/FR-P Premium	39 3/8" x 34' 2"; Roll weight: 105 lbs. (1 square)	ASTM D 5147	Fire resistant, granule surfaced SBS Modified Bitumen Membrane with non-woven polyester mat reinforcement for mop application.
Flintlastic FR-PG	39 3/8" x 34' 2"; Roll weight: 105 lbs. (1 square)	ASTM D 5147	Fire resistant, granule surfaced SBS Modified Bitumen Membrane with a dual carrier reinforcement for mop application.

Product	Dimensions	Test Specification	Product Description
Flintlastic FR Cap	39 3/8" x 34' 2"; Roll weight: 90 lbs. (1 square)	ASTM D 5147	Fire resistant, granule surfaced SBS Modified Bitumen membrane with fiberglass mat reinforcement for mop applications.
Flintlastic FR Base T	39-3/8" x 33'; Roll weight: 81lbs. (1.0 squares)	ASTM D6163	Fire resistant, plastic burn-off film surfaced SBS modified bitumen membrane with a fiberglass mat reinforcement for torch application.
Flintlastic FR Cap T	39-3/8" x 34'2"; Roll weight: 81lbs. (1 square)	ASTM D6163	Fire resistant, granule surfaced SBS modified bitumen membrane with a fiberglass mat reinforcement for torch application.
GlasBase™ Base Sheet	36" x 108'; Roll weight: 69 lbs. (3 squares)	ASTM D 4601 UL Type G2	Asphalt coated, fiberglass base sheet.
PolySMS Base Sheet	39 3/8" x 64' 4"; Roll weight: 90 lbs. (2 squares)	ASTM D 5147	Modified Bitumen, coated polyester base sheet.
Yosemite® Mineral Surfaced Cap Sheet	36" x 36'; Roll weight: 90 lbs. (1 square)	ASTM D 249 UL Type 30	Mineral Surfaced organic cap and buffer sheet.
Black Diamond™ Base Sheet	36" x 75'; Roll weight 75 lbs. (2.25 squares)	PA 103 ASTM D 1979	Slag surfaced SBS Modified Bitumen sheet with fiberglass reinforcement for peel and stick application.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
PYROX, White Line	Polyisocyanurate foam insulation	Apache Products Co.
ACFoam II	Polyisocyanurate foam insulation	Atlas Energy Products
High Density Wood Fiberboard	Wood fiber insulation board	generic
Perlite Insulation	Perlite insulation board	generic
ISO 95+	Polyisocyanurate foam insulation	Firestone
Dens Deck	Water resistant gypsum board	G-P Gypsum Corp.
ENRGY-2, ENRGY-3, PSI 25	Polyisocyanurate foam insulation	Johns Manville
ENRGY-2 PLUS, ENRGY-3 PLUS	Polyisocyanurate foam / wood fiberboard composite insulation	Johns Manville
FiberGlass Roof Insulation	Glass fiber/Mineral fiber insulation	Johns Manville
ISORoc	Polyisocyanurate foam / rockwool composite insulation	Johns Manville
Paroc Cap Board	Rockwool insulation	Partek, Inc.
Multi-Max & FA	Polyisocyanurate roof insulation	RMax, Inc.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Dekfast Fasteners #12, #14 & #15	Insulation fastener for wood, steel and concrete decks		Construction Fasteners Inc.
2.	DekSpike Fasteners	Insulation fastener for concrete decks		Construction Fasteners Inc.
3.	Dekfast Hex Plate	Galvalume hex stress plate.	2 7/8" x 3 ¼"	Construction Fasteners Inc.
4.	Dekfast Lock Plate	Polypropylene locking plate.	3" x 3 ¼"	Construction Fasteners Inc.
5.	#12, #14 Roofgrip Fasteners	Insulation fastener for concrete, steel or wood decks.		ITW Buildex Corp.
6.	Metal Plate	Galvalume stress plate.	3" round 3" square	ITW Buildex Corp.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
7.	Gearlok Plastic Plate	Polypropylene round plate	3.2"	ITW Buildex Corp.
8.	CD-10	Insulation fastener for concrete decks.		Olympic Mfg. Group
9.	Fluted Nail (Con-Tite)	Insulation fastener		Olympic Mfg. Group
10.	Olympic Fastener #12, #14	Insulation fastener		Olympic Mfg. Group
11.	Olympic Fastener ASAP	Pre-assembled Insulation fastener and plate		Olympic Mfg. Group
12.	Olympic Polypropylene	Polypropylene plastic plate	3.25" round	Olympic Mfg. Group
13.	Olympic G-2	Galvalume AZ55 steel plate	3.5" round	Olympic Mfg. Group
14.	Olympic Standard	Galvalume AZ50 steel plate	3" round	Olympic Mfg. Group
15.	Rawl Drive/Spike	Insulation fastener for concrete decks		Powers Fasteners, Inc.
16.	Rawl Plate	Galvalume AZ55 steel plate	3" round	Powers Fasteners, Inc.
17.	HD Insul-Fixx Fastener	Insulation fastener for use in steel and concrete decks		SFS Stadler
18.	Insul-Fixx S	Galvalume AZ55 stress plate	3" round	SFS Stadler
19.	Insul-Fixx P	Polyethylene stress plate	3" round	SFS Stadler
20.	Tru-Fast HD	Insulation fastener for concrete decks		The Tru-Fast Corp.
21.	Tru-Fast Plates	Galvalume AZ55 steel plate	3" round	The Tru-Fast Corp.
22.	Tru-Fast MP-3	Galvalume AZ50 steel plate	3.23" round	The Tru-Fast Corp.
23.	Tru-Fast Plates	Polyethylene plastic plate	3" round	The Tru-Fast Corp.
24.	FM-30, FM-45, FM-60, FM-90 Fasteners	Base ply fastening systems for lightweight concrete decks.		ES Products, Inc.
25.	Nail-Tite Type 'A', Type 'R'	Galvanized steel base ply fastener for gypsum decks		ES Products, Inc.
26.	Polymer Gyptec	Glass reinforced Nylon insulation fastener for gypsum & CWF decks.		ITW Buildex Corp.
27.	Polymer Gyptec Metal Plate	Galvalume stress plate	3" round	ITW Buildex Corp.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
28.	NTB Magnum	Glass reinforced Nylon insulation fastener for gypsum & CWF decks with barbs.		Olympic Mfg. Group
29.	NTB Plate	Galvalume stress plate	3" round	Olympic Mfg. Group
30.	Lite-Deck	Insulation fastener for CWF and Gypsum decks.		Olympic Mfg. Group
31.	Lite-Deck Plate	Galvalume stress plate	3" round	Olympic Mfg. Group
32.	Powerlite	Insulation fastener for CWF and Gypsum decks.		Powers Fasteners, Inc.
33.	Powerlite Plates	Galvalume AZ55 steel plate	3" round	Powers Fasteners, Inc.
34.	Powerlite Lap Plates	Galvalume AZ55 steel plate	2" round	Powers Fasteners, Inc.
35.	Base-Lok Fastener	Nylon base sheet fastener.		Simplex Nails & Fasteners
36.	Twin Loc-Nails	Galvanized stress plate and tube with integrated locking staple	2.7" round x various lengths	ES Products, Inc.
37.	FlintFast Fastener	Insulation and membrane fastener	Various	CertainTeed Corp.
38.	FlintFast 3"	Galvalume AZ50 steel plate	3" round	CertainTeed Corp.

EVIDENCE SUBMITTED:

Test Agency/Identifier	Name	Report	Date
Applied Research Laboratories	Physical Properties	28013	06/02/87
Exterior Research and Design, LLC	TAS 114	3521.07.04	07/29/04
Exterior Research and Design, LLC.	TAS 114	3533.01.06	01/06/06
Factory Mutual Research Corp.	Insulation Fastening Requirements	FMRC 1994	01/01/95
Factory Mutual Research Corp.	FMRC 4470	J.I. #3Y8A1.AM	03/23/96
Underwriters Laboratories, Inc.	Fire Classification Compliance	R11656	07/13/87
United States Testing Company, Inc.	ASTM D 5147	97457-4	06/03/88
	ASTM D 5147	97-457-2R	12/02/87

APPROVED ASSEMBLIES

Membrane Type: APP MODIFIED

Deck Type 7I: Recover

Deck Description: Wood/Steel/Concrete/Lightweight Concrete/Gypsum

System Type A(1): Anchor sheet mechanically fastened; all layers of insulation adhered with approved asphalt.

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**
Pyrox **Minimum 1.3" thick**	**N/A**	**N/A**
AC-Foam II, ENRGY 2, ENRGY-3, PSI-25, Isotherm R **Minimum 1.5" thick**	**N/A**	**N/A**
High Density Wood Fiberboard **Minimum ½" thick**	**N/A**	**N/A**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
Fiberglas **Minimum $^{15}/_{16}$" thick**	**N/A**	**N/A**
Dens Deck **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.

Anchor Sheet: One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base or PolySMS base mechanically attached to the deck as detailed below.

Fastening ***(wood)***: Anchor sheet shall be lapped 4" and fastened with approved roofing nails and tin caps 9" o.c. in the lap and two rows staggered in the center of the sheet 12" o.c. ***(Maximum Design Pressure –45 psf, See General Limitation #9.)***

Fastening ***(steel)***: Fastening #1: Olympic #12 or #14 Screws, Dekfast #12, #14 or #15, or Insulfixx #12 or #14 and metal plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 24" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #2:Olympic #12 or #14 Dekfast #12, #14 or #15 or Insulfixx #12 or #14 and metal plates at a 4" side lap 12" o.c. and one row in the center of the sheet, 18" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)

Fastening #3: (PolySMS Base Sheet Only) Olympic #12 or #14 Screws, Dekfast #12, #14 or #15, or Insulfixx #12 or #14 and metal plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 36" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #4: (PolySMS Base Sheet Only) Insulfixx screws and 2" round metal plates at a 4" side lap, 12" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)

Fastening ***(concrete)***: Fastening #1: Olympic #14 Screws, Dekfast #14 or #15, or Insulfixx #12 or #14 and metal plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 24" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #2: Olympic #14 Screws, Dekfast #14 or #15, or Insulfixx #14 and metal plates at a 4" side lap 12" o.c. and one row in the center of the sheet, 18" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #3: (PolySMS Base Sheet Only) Olympic #14 Screws, Dekfast #14 or #15, or Insulfixx #14 and metal plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 36" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #4: (PolySMS Base Sheet Only) Insulfixx #14 screws and 2" round metal plates at a 4" side lap, 12" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)

Fastening ***(LWC)***: (All Weather/Empire Base Sheet Only) ES Products FM-90 Base Ply Fasteners at a 7" o.c. in the 4" side lap and two evenly divided, staggered rows in the center of the sheet 7" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)

Fastening ***(gypsum)***: Fastening #1: (Poly SMS only) Simplex Tube-Lok fasteners with minimum 1-5/8" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 18" o.c.
(Maximum Design Pressure –52.5 psf, See General Limitation #9.)
Fastening #2: Simplex Tube-Lok fasteners with minimum 3" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 18" o.c.
(Maximum Design Pressure –52.5 psf, See General Limitation #9.)
Fastening #3: FM-90 Base Ply Fasteners or Simplex Tube-Lok fasteners with minimum 3" diameter plate spaced 7½" o.c. in min. 2" side lap and one row in center of the sheet, 7½" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #4: FM-90 Base Ply Fasteners or Simplex Tube-Lok fasteners with minimum 3" diameter plate 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.)

Ply Sheet: (Optional) One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane:	Flintlastic STA, Flintlastic Diamond GTA, Flintlastic GTA or GTA-FR torch adhered to base or ply sheet.
Surfacing:	(Optional) Install one of the following: 1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq.. 2. Karnak 97, APOC 212 Fibrated Aluminum, Henry 520 Aluminum or Grundy AL MB at an application rate of 1 ½ gal./sq..
Maximum Design Pressure:	See Fastening Requirements above.

Membrane Type:	SBS MODIFIED
Deck Type 7I:	Recover
Deck Description:	Wood/Steel/Concrete/Lightweight Concrete/Gypsum
System Type A(2):	Anchor sheet mechanically fastened; all layers of insulation adhered with approved asphalt.

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**
Apache Pyrox **Minimum 1.3" thick**	**N/A**	**N/A**
AC-Foam II, ENRGY 2, ENRGY-3, PSI-25, Isotherm R **Minimum 1.5" thick**	**N/A**	**N/A**
High Density Wood Fiberboard **Minimum ½" thick**	**N/A**	**N/A**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
Fiberglas **Minimum $^{15}/_{16}$" thick**	**N/A**	**N/A**
Dens Deck **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.

Anchor Sheet: One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base or PolySMS base mechanically attached to the deck as detailed below.

Fastening ***(wood)***: Anchor sheet shall be lapped 4" and fastened with approved roofing nails and tin caps 9" o.c. in the lap and two rows staggered in the center of the sheet 12" o.c. ***(Maximum Design Pressure –45 psf, See General Limitation #9.)***

Fastening ***(steel)***: Fastening #1: Olympic #12 or #14 Screws, Dekfast #12, #14 or #15, or Insulfixx #12 or #14 and metal plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 24" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #2: Olympic #12 or #14 Dekfast #12, #14 or #15 or Insulfixx #12 or #14 and metal plates at a 4" side lap 12" o.c. and one row in the center of the sheet, 18" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)

Fastening *(steel)* ***Cont.***

Fastening #3: (PolySMS Base Sheet Only) Olympic #12 or #14 Screws, Dekfast #12, #14 or #15, or Insulfixx #12 or #14 and metal plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 36" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #4: (PolySMS Base Sheet Only) Insulfixx screws and 2" round metal plates at a 4" side lap, 12" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)

Fastening *(concrete)*: Fastening #1: Olympic #14 Screws, Dekfast #14 or #15, or Insulfixx #12 or #14 and metal plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 24" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #2: Olympic #14 Screws, Dekfast #14 or #15, or Insulfixx #14 and metal plates at a 4" side lap 12" o.c. and one row in the center of the sheet, 18" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #3: (PolySMS Base Sheet Only) Olympic #14 Screws, Dekfast #14 or #15, or Insulfixx #14 and metal plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 36" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #4: (PolySMS Base Sheet Only) Insulfixx #14 screws and 2" round metal plates at a 4" side lap, 12" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)

Fastening *(LWC)*: (All Weather/Empire Base Sheet Only) ES Products FM-90 Base Ply Fasteners at a 7" o.c. in the 4" side lap and two evenly divided, staggered rows in the center of the sheet 7" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)

Fastening *(gypsum)*: Fastening #1: (Poly SMS only) Simplex Tube-Lok fasteners with minimum 1-5/8" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 18" o.c.
(Maximum Design Pressure –52.5 psf, See General Limitation #9.)
Fastening #2: Simplex Tube-Lok fasteners with minimum 3" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 18" o.c.
(Maximum Design Pressure –52.5 psf, See General Limitation #9.)
Fastening #3: FM-90 Base Ply Fasteners or Simplex Tube-Lok fasteners with minimum 3" diameter plate spaced 7½" o.c. in min. 2" side lap and one row in center of the sheet, 7½" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #4: FM-90 Base Ply Fasteners or Simplex Tube-Lok fasteners with minimum 3" diameter plate 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.)

Ply Sheet: (Optional) One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane:	One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic FR-PG or Flintlastic FR Cap 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 GTS torch adhered to base or ply sheet.
Surfacing:	(Optional) Install one of the following: 1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq. 2. Karnak 97, APOC 212 Fibrated Aluminum, Henry 520 Aluminum or Grundy AL MB at an application rate of 1 ½ gal./sq.
Maximum Design Pressure:	See Fastening Requirements above.

Membrane Type: APP Modified

Deck Type 7I: Recover

Deck Description: Wood/Steel/Concrete/Lightweight Concrete/Cementitious Wood Fiber/Gypsum

System Type A(3): Anchor sheet (optional), insulation adhered with approved asphalt.

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
Pyrox **Minimum 1.3" thick**	**N/A**	**N/A**
AC-Foam II, Isotherm R, E'NRG'Y-2, ENRGY-3, PSI-25 **Minimum 1.5" thick**	**N/A**	**N/A**
High Density Wood Fiberboard **Minimum ½" thick**	**N/A**	**N/A**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
Fiberglas **Minimum $^{15}/_{16}$" thick**	**N/A**	**N/A**
Dens Deck **Minimum ¼" thick**	**N/A**	**N/A**

Note: Existing roof shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 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.

Anchor Sheet: (Optional) One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the primed concrete deck with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Base Sheet: One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) 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 Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..

Membrane:	Flintlastic STA, Flintlastic Diamond GTA, Flintlastic GTA or GTA-FR torch adhered to base or ply sheet.
Surfacing:	(Optional) Install one of the following: 1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq.. 2. Karnak 97, APOC 212 Fibrated Aluminum, Henry 520 Aluminum or Grundy AL MB at an application rate of 1½ gal./sq., or APOC Sunbrite at an application rate of 3 gal./sq..
Maximum Design Pressure:	-45 psf (See General Limitations # 9)

Membrane Type:	SBS MODIFIED
Deck Type 7I:	Recover
Deck Description:	Wood/Steel/Concrete/Lightweight Concrete/Cementitious Wood Fiber/Gypsum
System Type A(4):	Anchor sheet (optional), insulation adhered with approved asphalt.

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**
Pyrox **Minimum 1.3" thick**	**N/A**	**N/A**
AC-Foam II, Isotherm R, E'NRG'Y-2, ENRGY-3, PSI-25 **Minimum 1.5" thick**	**N/A**	**N/A**
High Density Wood Fiberboard **Minimum ½" thick**	**N/A**	**N/A**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
Fiberglas **Minimum $^{15}/_{16}$" thick**	**N/A**	**N/A**
Dens Deck **Minimum ¼" thick**	**N/A**	**N/A**

Note: Existing roof shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 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.

Anchor Sheet:	(Optional) One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base or PolySMS Base adhered to the primed concrete deck with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Base Sheet:	One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base, Poly SMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) 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 Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..

Membrane:	One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic FR-PG or Flintlastic FR Cap 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 GTS torch adhered to base or ply sheet.
Surfacing:	(Optional) Install one of the following: 1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq.. 2. Karnak 97, APOC 212 Fibrated Aluminum, Henry 520 Aluminum or Grundy AL MB at an application rate of 1½ gal./sq., or APOC Sunbrite at an application rate of 3 gal./sq..
Maximum Design Pressure:	-45 psf (See General Limitations # 9)

Membrane Type:	APP MODIFIED
Deck Type 7I:	Recover
Deck Description:	Gypsum/ Cementitious Wood Fiber/ Lightweight Insulating Concrete
System Type A(5):	Anchor sheet mechanically fastened; all insulation layers 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**	**Fastener Density/ft²**
AC-Foam II, ENRGY 3, FlintBoard Iso, Multi-Max Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners**	**Fastener Density/ft²**
Fresco Minimum 0.75" thick	**N/A**	**N/A**
High Density Wood Fiberboard 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 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.

Anchor Sheet: One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base or All Weather/Empire Base mechanically attached to the deck as detailed below:

Fastening *(Gypsum)*: Fastening #1 Twin Loc-Nails spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.
(Maximum Design Pressure –60 psf, See General Limitation #7.)
Fastening #2 Twin Loc-Nails 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.)

Fastening *(CWF)*: Fastening #1 Twin Loc-Nails spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.
(Maximum Design Pressure –60 psf, See General Limitation #7.)
Fastening #2 Twin Loc-Nails 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.)

Base Sheet:	One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base, Poly SMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) 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 Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Membrane:	One ply of Flintlastic GTS, Flintlastic STA, Flintlastic Diamond GTA, Flintlastic GTA or Flintlastic GTA-FR torch adhered to base sheet or ply sheet
Maximum Design Pressure:	See fastening requirements above

Membrane Type:	SBS MODIFIED
Deck Type 7I:	Recover
Deck Description:	Gypsum/ Cementitious Wood Fiber/ Lightweight Insulating Concrete
System Type A(6):	Anchor sheet mechanically fastened; all insulation layers 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**	**Fastener Density/ft^2**
AC-Foam II, ENRGY 3, FlintBoard Iso, Multi-Max Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners**	**Fastener Density/ft^2**
Fresco Minimum 0.75" thick	**N/A**	**N/A**
High Density Wood Fiberboard 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.

Anchor Sheet: One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base or All Weather/Empire Base mechanically attached to the deck as detailed below:

Fastening ***(Gypsum)*** Fastening #1 Twin Loc-Nails spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.
(Maximum Design Pressure –60 psf, See General Limitation #7.)
Fastening #2 Twin Loc-Nails 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.)

Fastening ***(CWF)*** Fastening #1 Twin Loc-Nails spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.
(Maximum Design Pressure –60 psf, See General Limitation #7.)
Fastening #2 Twin Loc-Nails 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.)

Base Sheet:	One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base, Poly SMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) 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 Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Membrane:	One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic FR Cap Sheet 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.
Maximum Design Pressure:	See fastening requirements above

Membrane Type:	APP/SBS MODIFIED
Deck Type 7I:	Recover
Deck Description:	2500 psi structural concrete or concrete plank
System Type A(7):	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**	**Fastener Density/ft^2**
AC-Foam II, ENRGY 3, FlintBoard Iso, Multi-Max Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners**	**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 base sheet. All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 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 Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) 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 Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Membrane:	One ply of Flintlastic STA Plus 5.0, Flintlastic STA, Flintlastic Diamond GTA, Flintlastic GTA or Flintlastic GTA-FR torch adhered to base sheet or ply sheet Or One ply of Flintglas Mineral Surface Cap Sheet, Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic FR Cap Sheet, Flexiglas Premium Cap 960 or Ultra Poly SMS 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.
Maximum Design Pressure:	-430 psf. See General Limitation #9.

Membrane Type:	APP/SBS MODIFIED
Deck Type 7I:	Recover
Deck Description:	2500 psi structural concrete or concrete plank
System Type A(8):	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**	**Fastener Density/ft²**
AC-Foam II, ENRGY 3, FlintBoard Iso, Multi-Max Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners**	**Fastener Density/ft²**
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 base sheet. All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet:	One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) 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 Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Membrane:	One ply of Flintlastic STA Plus 5.0, Flintlastic STA, Flintlastic Diamond GTA, Flintlastic GTA or Flintlastic GTA-FR torch adhered to base sheet or ply sheet or One ply of Flintglas Mineral Surface Cap Sheet, Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic FR Cap Sheet, Flexiglas Premium Cap 960 or Ultra Poly SMS 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.
Maximum Design Pressure:	-412 psf. See General Limitation #9.

Membrane Type:	APP MODIFIED
Deck Type 7I:	Recover
Deck Description:	Gypsum/ Cementitious Wood Fiber/ Lightweight Insulating Concrete
System Type A(9):	Anchor sheet mechanically fastened; all insulation layers 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**	**Fastener Density/ft^2**
AC-Foam II, ENRGY 3, FlintBoard Iso, Multi-Max Minimum 1.5" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 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.

Anchor Sheet:	One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base or All Weather/Empire Base mechanically attached to the deck as detailed below:
Fastening ***(Gypsum)***	Fastening #1 Twin Loc-Nails spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c. ***(Maximum Design Pressure –60 psf, See General Limitation #9.)*** Fastening #2 Twin Loc-Nails 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 #9.)***
Fastening ***(CWF)***	Fastening #1 Twin Loc-Nails spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c. ***(Maximum Design Pressure –60 psf, See General Limitation #9.)*** Fastening #2 Twin Loc-Nails 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 #9.)***
Base Sheet:	One ply of Black Diamond Base Sheet Self Adhered.
Ply Sheet:	(Optional) One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Membrane:	One ply of Flintlastic GTS, Flintlastic STA, Flintlastic Diamond GTA, Flintlastic GTA or Flintlastic GTA-FR torch adhered to base sheet or ply sheet
Maximum Design Pressure:	See fastening requirements above

Membrane Type:	SBS MODIFIED
Deck Type 7I:	Recover
Deck Description:	Gypsum/ Cementitious Wood Fiber/Lightweight Insulating Concrete
System Type A(10):	Anchor sheet mechanically fastened; all insulation layers 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**	**Fastener Density/ft^2**
AC-Foam II, ENRGY 3, FlintBoard Iso, Multi-Max Minimum 1.5" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 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.

Anchor Sheet: One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base or All Weather/Empire Base mechanically attached to the deck as detailed below:

Fastening ***(Gypsum)***: Fastening #1 Twin Loc-Nails spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.
(Maximum Design Pressure –52.5 psf, See General Limitation #9.)
Fastening #2 Twin Loc-Nails spaced 9" o.c. in 4" side lap and two staggered rows in center of the sheet, 9" o.c.
(Maximum Design Pressure –52.5 psf, See General Limitation #9.)

Fastening ***(CWF):*** Fastening #1 Twin Loc-Nails spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.
(Maximum Design Pressure –52.5 psf, See General Limitation #9.)
Fastening #2 Twin Loc-Nails spaced 9" o.c. in 4" side lap and two staggered rows in center of the sheet, 9" o.c.
(Maximum Design Pressure –52.5 psf, See General Limitation #9.)

Base Sheet: One ply of Black Diamond Base Sheet Self Adhered.

Ply Sheet: (Optional) One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic FR Cap Sheet 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.

Maximum Design Pressure: See fastening requirements above

Membrane Type:	SBS MODIFIED
Deck Type 7I:	Recover
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/ft^2
ACFoam II, FlintBoard ISO Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck, DensDeck Prime, DensDeck DuraGuard, Securock 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 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.

Base Sheet:	One or more layers of Flintlastic FR Base T, torch applied
Ply Sheet:	(Optional) Flintlastic FR Base T, torch applied.
Membrane:	Flintlastic FR Cap T, torch applied.
Maximum Design Pressure:	-180.0 psf (See General Limitation # 9)

Membrane Type:	SBS MODIFIED
Deck Type 7I:	Recover
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, FlintBoard ISO Minimum 1.5" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck 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 or Weather-Tite Pourable Foam 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 layers of Flintlastic FR Base T, torch applied
Ply Sheet:	(Optional) Flintlastic FR Base T, torch applied.
Membrane:	Flintlastic FR Cap T, torch applied.
Maximum Design Pressure:	-112.5 psf (with Insta-Stik) (See General Limitation # 9) -180.0 psf (with Weather-Tite One Step Foamable Insulation Adhesive) (See General Limitation # 9)

Membrane Type:	SBS MODIFIED
Deck Type 7I:	Recover
Deck Description:	Min. 2,500 psi structural concrete or concrete plank.
System Type A(13):	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, FlintBoard ISO Minimum 1.5" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Securock 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 or Weather-Tite Pourable Foam Insulation Adhesive or 1" wide ribbons of OlyBond 500 or SpotShot, 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 layers of Flintlastic FR Base T, torch applied
Ply Sheet:	(Optional) Flintlastic FR Base T, torch applied.
Membrane:	Flintlastic FR Cap T, torch applied.
Maximum Design Pressure:	-180.0 psf (See General Limitation # 9)

Membrane Type:	SBS MODIFIED
Deck Type 7I:	Recover
Deck Description:	Min. 2,500 psi structural concrete or concrete plank.
System Type A(14):	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, FlintBoard ISO Minimum 1.5" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Securock, DensDeck Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck in ½" – ¾" wide beads of Weather-Tite One Step Foamable Adhesive or in full coverage of OlyBond Adhesive Fastener 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 layers of Flintlastic FR Base T, torch applied
Ply Sheet:	(Optional) Flintlastic FR Base T, torch applied.
Membrane:	Flintlastic FR Cap T, torch applied.
Maximum Design Pressure:	-180.0 psf (See General Limitation # 9)

Membrane Type:	SBS MODIFIED
Deck Type 7I:	Recover
Deck Description:	Min. 2,500 psi structural concrete or concrete plank.
System Type A(15):	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, FlintBoard ISO Minimum 1.5" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck, DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck in 1" wide ribbons of OlyBond 500 or SpotShot, 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 layers of Flintlastic FR Base T, torch applied
Ply Sheet:	(Optional) Flintlastic FR Base T, torch applied.
Membrane:	Flintlastic FR Cap T, torch applied.
Maximum Design Pressure:	-150.0 psf (See General Limitation # 9)

Membrane Type:	SBS MODIFIED
Deck Type 7I:	Recover
Deck Description:	Min. 2,500 psi structural concrete or concrete plank.
System Type A(16):	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, FlintBoard ISO Minimum 1.5" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck, DensDeck Prime, Securock Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck in 3" – 3.5" wide ribbons of TITESET or FASTAC, 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 layers of Flintlastic FR Base T, torch applied
Ply Sheet:	(Optional) Flintlastic FR Base T, torch applied.
Membrane:	Flintlastic FR Cap T, torch applied.
Maximum Design Pressure:	-180.0 psf (See General Limitation # 9)

Membrane Type:	APP MODIFIED
Deck Type 7I:	Recover
Deck Description:	Wood/Steel/Concrete/Cementitious Wood Fiber/Gypsum
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**
Pyrox **Minimum 1.3" thick**	**Approved Fastener for Deck Type**	**1:2 ft²**
ACFoam-II, ENRGY 2, ENRGY-3, PSI-25, Isotherm R **Minimum 1.5" thick**	**Approved Fastener for Deck Type**	**1:2 ft²**
Perlite **Minimum ¾" thick**	**Approved Fastener for Deck Type**	**1:2 ft²**
High Density Wood Fiberboard **Minimum ½" thick**	**Approved Fastener for Deck Type**	**1:2 ft²**
Fiberglas **Minimum $^{15}/_{16}$" 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**	**Fastener Density/ft²**
High Density Wood Fiberboard **Minimum ½" thick**	**N/A**	**N/A**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
Dens-Deck **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 Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) 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 Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Membrane:	Flintlastic STA, Flintlastic Diamond GTA, Flintlastic GTA or GTA-FR torch adhered to base or ply sheet.
Surfacing:	(Optional) Install one of the following: 1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq.. 2. Karnak 97, APOC 212 Fibrated Aluminum, Henry 520 Aluminum or Grundy AL MB at an application rate of 1½ gal./sq., or APOC Sunbrite at an application rate of 3 gal./sq..
Maximum Design Pressure:	-45 psf (wood, cementitious wood fiber and gypsum decks) (See General Limitation #9) -52.5 psf (steel and concrete decks) (See General Limitation #9)

Membrane Type:	SBS MODIFIED
Deck Type 7I:	Recover
Deck Description:	Wood/Steel/Concrete/Cementitious Wood Fiber/Gypsum
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**
Pyrox		
Minimum 1.3" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
ACFoam-II, ENRGY 2, ENRGY-3, PSI-25, Isotherm R		
Minimum 1.5" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
Perlite		
Minimum ¾" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
High Density Wood Fiberboard		
Minimum ½" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
Fiberglas		
Minimum $^{15}/_{16}$" 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**	**Fastener Density/ft²**
High Density Wood Fiberboard		
Minimum ½" thick	**N/A**	**N/A**
Perlite		
Minimum ¾" thick	**N/A**	**N/A**
Dens-Deck		
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 Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) 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 Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..
Membrane:	One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic FR-PG or Flintlastic FR Cap 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 GTS torch adhered to base or ply sheet.
Surfacing:	(Optional) Install one of the following: 1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq.. 2. Karnak 97, APOC 212 Fibrated Aluminum or Grundy AL MB at an application rate of 1½ gal./sq., or APOC Sunbrite at an application rate of 3 gal./sq..
Maximum Design Pressure:	-45 psf (wood, cementitious wood fiber and gypsum decks) (See General Limitation #9) -52.5 psf (steel and concrete decks) (See General Limitation #9)

Membrane Type:	APP MODIFIED
Deck Type 7I:	Recover
Deck Description:	Wood/Steel/Concrete/Cementitious Wood Fiber/Gypsum
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**
Pyrox **Minimum 1.3" thick**	**N/A**	**N/A**
ACFoam-II, Isotherm R, ENRGY-2, ENRGY-3, PSI-25 **Minimum 1.5" thick**	**N/A**	**N/A**
High Density Wood Fiber **Minimum ½" thick**	**N/A**	**N/A**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
Fiberglas **Minimum $^{15}/_{16}$" thick**	**N/A**	**N/A**
Dens-Deck **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**
Perlite **Minimum ¾" thick**	**Approved Fastener for Deck Type**	**1:2 ft²**
Dens-Deck **Minimum ¼" thick**	**Approved Fastener for Deck Type**	**1:2 ft²**
High Density Wood Fiberboard **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 Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) 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 Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..
Membrane:	Flintlastic STA, Flintlastic Diamond GTA, Flintlastic GTA or GTA-FR torch adhered to base or ply sheet.
Surfacing:	(Optional) Install one of the following: 1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq.. 2. Karnak 97, APOC 212 Fibrated Aluminum, Henry 520 Aluminum or Grundy AL MB at an application rate of 1½ gal./sq., or APOC Sunbrite at an application rate of 3 gal./sq...
Maximum Design Pressure:	-45 psf (wood, cementitious wood fiber and gypsum decks) (See General Limitation #9) -52.5 psf (steel and concrete decks) (See General Limitation #9)

Membrane Type: SBS MODIFIED

Deck Type 7I: Recover

Deck Description: Wood/Steel/Concrete/Cementitious Wood Fiber/Gypsum

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**
Pyrox **Minimum 1.3" thick**	**N/A**	**N/A**
ACFoam-II, Isotherm R, ENRGY-2, ENRGY-3, PSI-25 **Minimum 1.5" thick**	**N/A**	**N/A**
High Density Wood Fiber **Minimum ½" thick**	**N/A**	**N/A**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
Fiberglas **Minimum $^{15}/_{16}$" thick**	**N/A**	**N/A**
Dens-Deck **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**
Perlite **Minimum ¾" thick**	**Approved Fastener for Deck Type**	**1:2 ft²**
Dens-Deck **Minimum ¼" thick**	**Approved Fastener for Deck Type**	**1:2 ft²**
High Density Wood Fiberboard **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 Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) 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 Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..
Membrane:	One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic FR-PG or Flintlastic FR Cap 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 GTS torch adhered to base or ply sheet.
Surfacing:	(Optional) Install one of the following: 1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq.. 2. Karnak 97, APOC 212 Fibrated Aluminum or Grundy AL MB at an application rate of 1½ gal./sq., or APOC Sunbrite at an application rate of 3 gal./sq.
Maximum Design Pressure:	-45 psf (wood, cementitious wood fiber and gypsum decks) (See General Limitation #9) -52.5 psf (steel and concrete decks) (See General Limitation #9)

Membrane Type:	APP MODIFIED
Deck Type 7I:	Recover
Deck Description:	Wood/Steel/Concrete
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:

Base Insulation Layer (Optional)	**Insulation Fasteners Table 3**	**Fastener Density/ft²**
Pyrox **Minimum 1.3" thick**	**N/A**	**N/A**
ACFoam-II, Isotherm R, ENRGY-2, ENRGY-3, PSI-25 **Minimum 1.5" thick**	**N/A**	**N/A**
High Density Wood Fiber **Minimum ½" thick**	**N/A**	**N/A**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
Fiberglas **Minimum $^{15}/_{16}$" thick**	**N/A**	**N/A**
Dens-Deck **Minimum ¼" thick**	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners Table 3**	**Fastener Density/ft²**
High Density Wood Fiber **Minimum ½" thick**	**N/A**	**N/A**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
Dens-Deck **Minimum ¼" thick**	**N/A**	**N/A**

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

Base Sheet: One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base or PolySMS mechanically attached as detailed below.

Fastening ***(wood & steel):***

Fastening #1: Olympic Screws #12 or #14 and metal plates, Dekfast #14 or #15 and metal plates, Tru-Fast #12, #14 or #15 and MP-3 Plates, FlintFast #12 or #14 screws and FlintFast 3" plates or SFS Insulfixx #12 or #14 and metal plates spaced 4" o.c. at a 4" side lap and two staggered rows in the center of the sheet, 24" o.c.
Fastening #2: (Poly SMS only) Olympic Screws #12 or #14 and metal plates, Dekfast #14 or #15 and metal plates, Tru-Fast #12, #14 or #15 and MP-3 Plates, FlintFast #12 or #14 screws and FlintFast 3" plates or SFS Insulfixx #12 or #14 and metal plates spaced 12" o.c. at a 4" side lap and two staggered rows in the center of the sheet, 36" o.c.
Fastening #3: (Poly SMS only) SFS Insulfixx screws and 2" round metal plates at a 4" side lap, 12" o.c.
Fastening #4: (Poly SMS only) Insulfixx screws and 2" round metal plates at a 4" side lap, 12" o.c.

Fastening ***(concrete):*** See #1 through #4 above using #14 or #15 fasteners only.

Ply Sheet: (Optional) One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..

Membrane: Flintlastic STA, Flintlastic Diamond GTA, Flintlastic GTA or GTA-FR torch adhered to base or ply sheet.

Surfacing: (Optional) Install one of the following:
1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq..
2. Karnak 97, APOC 212 Fibrated Aluminum, Henry 520 Aluminum or Grundy AL MB at an application rate of 1½ gal./sq., or APOC Sunbrite at an application rate of 3 gal./sq..

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

Membrane Type:	SBS MODIFIED
Deck Type 7I:	Recover
Deck Description:	Wood/Steel/Concrete
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:

Base Insulation Layer (Optional)	**Insulation Fasteners Table 3**	**Fastener Density/ft^2**
Pyrox **Minimum 1.3" thick**	**N/A**	**N/A**
ACFoam-II, Isotherm R, ENRGY-2, ENRGY-3, PSI-25 **Minimum 1.5" thick**	**N/A**	**N/A**
High Density Wood Fiber **Minimum ½" thick**	**N/A**	**N/A**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
Fiberglas **Minimum $^{15}/_{16}$" thick**	**N/A**	**N/A**
Dens-Deck **Minimum ¼" thick**	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners Table 3**	**Fastener Density/ft^2**
High Density Wood Fiber **Minimum ½" thick**	**N/A**	**N/A**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
Dens-Deck **Minimum ¼" thick**	**N/A**	**N/A**

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

Base Sheet: One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base or PolySMS mechanically attached as detailed below.

Fastening ***(wood & steel):***

Fastening #1: Olympic Screws #12 or #14 and metal plates, Dekfast #14 or #15 and metal plates, Tru-Fast #12, #14 or #15 and MP-3 Plates, FlintFast #12 or #14 screws and FlintFast 3" plates or SFS Insulfixx #12 or #14 and metal plates spaced 4" o.c. at a 4" side lap and two staggered rows in the center of the sheet, 24" o.c.
Fastening #2: (Poly SMS only) Olympic Screws #12 or #14 and metal plates, Dekfast #14 or #15 and metal plates, Tru-Fast #12, #14 or #15 and MP-3 Plates, FlintFast #12 or #14 screws and FlintFast 3" plates or SFS Insulfixx #12 or #14 and metal plates spaced 12" o.c. at a 4" side lap and two staggered rows in the center of the sheet, 36" o.c.
Fastening #3: (Poly SMS only) SFS Insulfixx screws and 2" round metal plates at a 4" side lap, 12" o.c.
Fastening #4: (Poly SMS only) Insulfixx screws and 2" round metal plates at a 4" side lap, 12" o.c.

Fastening ***(concrete):*** See #1 through #4 above using #14 or #15 fasteners only.

Ply Sheet: (Optional) One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..

Membrane: One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic FR-PG or Flintlastic FR Cap 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 GTS torch adhered to base or ply sheet

Surfacing: (Optional) Install one of the following:
1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq..
2. Karnak 97, APOC 212 Fibrated Aluminum or Grundy AL MB at an application rate of 1½ gal./sq., or APOC Sunbrite at an application rate of 3 gal./sq..

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

Membrane Type:	APP/SBS MODIFIED
Deck Type 7I:	Recover
Deck Description:	Min. 2,500 psi concrete or min. 22 ga type B steel @ 5' spans
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.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
(Optional) ACFoam-II, ENRGY-3, FlintBoard ISO, H-Shield, Multi-Max FA Minimum 1.0" thick	**N/A**	**N/A**
(Optional) Expanded Polystyrene (min 1.25 pcf) Minimum 1" thick	**N/A**	**N/A**
(Optional) Perlite Minimum ¾" thick	**N/A**	**N/A**
(Optional) High Density Wood Fiberboard Minimum ½" thick	**N/A**	**N/A**
(Optional) DensDeck, DensDeck Prime, Securock Minimum ¼" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, ENRGY-3, FlintBoard ISO, H-Shield, Multi-Max FA Minimum 1.0" thick	**N/A**	**N/A**
Expanded Polystyrene (min 1.25 pcf) Minimum 1" thick	**N/A**	**N/A**
High Density Wood Fiberboard Minimum ½" thick	**N/A**	**N/A**
Perlite Minimum ¾" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime, Securock Minimum ¼" thick	**N/A**	**N/A**

Note: Top layer shall have preliminary attachment, prior to the installation of the base/anchor 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/anchor sheet below for fasteners and density.

Base Sheet:	One ply of Poly SMS or Ultra Poly SMS, mechanically attached as detailed below:
Fastening #1:	Olympic #14 screws and metal plates, Dekfast #14 screws with Hex metal plates, #14 Roofgrip screws with metal plate or Tru-Fast HD screws with MP-3 plates or FlintFast #14 screws and FlintFast 3" 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) Flintlastic FR Base T, torch applied.
Membrane:	Flintlastic FR Cap T, torch applied.
Maximum Design Pressure:	-112.5 psf (See General Limitation # 7)

Membrane Type: APP MODIFIED

Deck Type 7: Recover

Deck Description: Wood/Steel/Concrete/Lightweight Concrete/Gypsum/ Cementitious Wood Fiber

System Type E(1): Base sheet mechanically fastened, over smooth surface roof system only.

All General and System Limitations apply.

Base Sheet: One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base or PolySMS base fastened to the deck as detailed below.

Fastening ***(wood & steel)***:

Fastening #1: (wood only) Base sheet shall be lapped 4" and fastened with approved roofing nails and tin caps 9" o.c. in the lap and two rows staggered in the center of the sheet 12" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.).
Fastening #2: Olympic Screws #12 or #14 and metal plates, Dekfast #14 or #15 and metal plates or SFS Insulfixx #12 or #14 and metal plates spaced 4" o.c. at a 4" side lap and two staggered rows in the center of the sheet, 24" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #3: (Poly SMS only) Olympic Screws #12 or #14 and metal plates, Dekfast #14 or #15 and metal plates or SFS Insulfixx #12 or #14 and metal plates spaced 12" o.c. at a 4" side lap and two staggered rows in the center of the sheet, 36" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #4: (Poly SMS only) SFS Insulfixx screws and 2" round metal plates at a 4" side lap, 12" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #5: (Poly SMS only) Insulfixx screws and 2" round metal plates at a 4" side lap, 12" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)

Fastening ***(concrete)***: See #2 through #5 above using #14 or #15 fasteners only.

Fastening ***(LWC)***: (All Weather/Empire Base Sheet Only) ES Products FM-90 Base Ply Fasteners at a 7" o.c. in the 4" side lap and two evenly divided, staggered rows in the center of the sheet 7" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)

Fastening ***(gypsum)***: Fastening #1: (Poly SMS only) Simplex Tube-Lok fasteners with minimum 1-5/8" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 18" o.c.
(Maximum Design Pressure –52.5 psf, See General Limitation #9.)

Fastening *(gypsum)*: cont.

Fastening #2: Simplex Tube-Lok fasteners with minimum 3" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 18" o.c.
(Maximum Design Pressure –52.5 psf, See General Limitation #9.).
Fastening #3: FM-90 Base Ply Fasteners or Simplex Tube-Lok fasteners with minimum 3" diameter plate spaced 7½" o.c. in min. 2" side lap and one row in center of the sheet, 7½" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #4: FM-90 Base Ply Fasteners or Simplex Tube-Lok fasteners with minimum 3" diameter plate 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 #5: Twin Loc-Nails 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 #9.)
Fastening #6: Twin Loc-Nails 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 #9.)

Fastening *(cwf)*:

Fastening #1: Twin Loc-Nails 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 #9.)
Fastening #2: Twin Loc-Nails 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 #9.)

Ply Sheet:

(Optional) One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40.

Membrane:

Flintlastic STA, Flintlastic Diamond GTA, Flintlastic GTA or GTA-FR torch adhered to base or ply sheet.

Surfacing:

(Optional) Install one of the following:
1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq..
2. Karnak 97, APOC 212 Fibrated Aluminum, Henry 520 Aluminum or Grundy AL MB at an application rate of 1½ gal./sq., or APOC Sunbrite at an application rate of 3 gal./sq..

Maximum Design Pressure:

See Fastening Requirements above.

Membrane Type: SBS MODIFIED

Deck Type 7: Recover

Deck Description: Wood/Steel/Concrete/Lightweight Concrete/Gypsum/Cementitious Wood Fiber

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 Glas-Base, Flexiglas Base, Flexiglas FR Base or PolySMS base fastened to the deck as detailed below.

Fastening ***(wood & steel)***:

Fastening #1: (wood only) Base sheet shall be lapped 4" and fastened with approved roofing nails and tin caps 9" o.c. in the lap and two rows staggered in the center of the sheet 12" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.).
Fastening #2: Olympic Screws #12 or #14 and metal plates, Dekfast #14 or #15 and metal plates or SFS Insulfixx #12 or #14 and metal plates spaced 4" o.c. at a 4" side lap and two staggered rows in the center of the sheet, 24" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #3: (Poly SMS only) Olympic Screws #12 or #14 and metal plates, Dekfast #14 or #15 and metal plates or SFS Insulfixx #12 or #14 and metal plates spaced 12" o.c. at a 4" side lap and two staggered rows in the center of the sheet, 36" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #4: (Poly SMS only) SFS Insulfixx screws and 2" round metal plates at a 4" side lap, 12" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #5: (Poly SMS only) Insulfixx screws and 2" round metal plates at a 4" side lap, 12" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)

Fastening ***(concrete)***: See #2 through #5 above using #14 or #15 fasteners only.

Fastening ***(LWC)***: (All Weather/Empire Base Sheet Only) ES Products FM-90 Base Ply Fasteners at a 7" o.c. in the 4" side lap and two evenly divided, staggered rows in the center of the sheet 7" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)

Fastening ***(gypsum)***: Fastening #1: (Poly SMS only) Simplex Tube-Lok fasteners with minimum 1-5/8" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 18" o.c.
(Maximum Design Pressure –52.5 psf, See General Limitation #9.)
Fastening #2: Simplex Tube-Lok fasteners with minimum 3" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 18" o.c.
(Maximum Design Pressure –52.5 psf, See General Limitation #9.).

Fastening *(gypsum)*: cont.

Fastening #3: FM-90 Base Ply Fasteners or Simplex Tube-Lok fasteners with minimum 3" diameter plate spaced 7½" o.c. in min. 2" side lap and one row in center of the sheet, 7½" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #4: FM-90 Base Ply Fasteners or Simplex Tube-Lok fasteners with minimum 3" diameter plate 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 #5: Twin Loc-Nails spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.
(Maximum Design Pressure –60 psf, See General Limitation #9.)
Fastening #6: Twin Loc-Nails 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 #9.)

Fastening *(cwf)*:

Fastening #1: Twin Loc-Nails 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 #9.)
Fastening #2: Twin Loc-Nails 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 #9.)

Ply Sheet:

(Optional) One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40.

Membrane:

One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic FR-PG or Flintlastic FR Cap 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 GTS torch adhered to base or ply sheet.

Surfacing:

(Optional) Install one of the following:
1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq..
2. Karnak 97, APOC 212 Fibrated Aluminum or Grundy AL MB at 1½ gal./sq., or APOC Sunbrite at an application rate of 3 gal./sq..

Maximum Design Pressure:

See Fastening Requirements above.

Membrane Type:	APP MODIFIED
Deck Type 7:	Recover
Deck Description:	Gypsum / Cementitious Wood Fiber / Lightweight Concrete
System Type E(3):	Base sheet mechanically fastened.

All General and System limitations apply.

Base Sheet:	One ply of GlasBase, Flexiglas Base, Flexiglas FR Base or All Weather/Empire Base mechanically fastened to the deck as detailed below.
Fastening #1:	Twin Loc-Nails 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 #9.)***
Fastening #2:	Twin Loc-Nails 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 #9.)***
Ply Sheet:	(Optional) One ply of GlasBase, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Membrane:	One ply of Flintlastic GTS, Flintlastic STA, Flintlastic Diamond GTA, Flintlastic GTA or Flintlastic GTA-FR torch adhered to base sheet or ply sheet
Maximum Design Pressure:	See fastening requirements above

Membrane Type:	SBS MODIFIED
Deck Type 7:	Recover
Deck Description:	Gypsum / Cementitious Wood Fiber / Lightweight Concrete
System Type E(4):	Base sheet mechanically fastened.

All General and System limitations apply.

Base Sheet:	One ply of GlasBase, Flexiglas Base, Flexiglas FR Base or All Weather/Empire Base mechanically fastened to the deck as detailed below.
Fastening #1:	Twin Loc-Nails 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 #9.)***
Fastening #2:	Twin Loc-Nails 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 #9.)***
Ply Sheet:	(Optional) One ply of Glas Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Membrane:	One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic FR Cap Sheet 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.
Maximum Design Pressure:	See fastening requirements above

Membrane Type:	APP MODIFIED
Deck Type 7:	Recover
Deck Description:	Wood/Steel/Concrete/Lightweight Concrete/Cementitious Wood Fiber/Gypsum
System Type F(1):	Base sheet adhered with approved asphalt.

All General and System Limitations apply.

Base Sheet:	One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) base spot mopped to the primed smooth surface roof with approved mopping asphalt applied in 24" dia. spots 30" o.c. at an application rate of 12 lb./sq. ± 15%.
Ply Sheet:	(Optional) One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40.
Membrane:	Flintlastic STA, Flintlastic Diamond GTA, Flintlastic GTA or GTA-FR torch adhered to base or ply sheet.
Surfacing:	(Optional) Install one of the following: 1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq.. 2. Karnak 97, APOC 212 Fibrated Aluminum, Henry 520 Aluminum or Grundy AL MB at an application rate of 1½ gal./sq., or APOC Sunbrite at an application rate of 3 gal./sq..
Maximum Design Pressure:	-45 psf (See General Limitation #9)

Membrane Type:	SBS MODIFIED
Deck Type 7:	Recover
Deck Description:	Wood/Steel/Concrete/Lightweight Concrete/Cementitious Wood Fiber/Gypsum
System Type F(2):	Base sheet adhered with approved asphalt.

All General and System Limitations apply.

Base Sheet:	One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) base spot mopped to the primed smooth surface roof with approved mopping asphalt applied in 24" dia. spots 30" o.c. at an application rate of 12 lb./sq. ± 15%.
Ply Sheet:	(Optional) One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40.
Membrane:	One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic FR-PG or Flintlastic FR Cap 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 GTS torch adhered to base or ply sheet.
Surfacing:	(Optional) Install one of the following: 1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq.. 2. Karnak 97, APOC 212 Fibrated Aluminum or Grundy AL MB at 1½ gal./sq., or APOC Sunbrite at an application rate of 3 gal./sq..
Maximum Design Pressure:	-45 psf (See General Limitation #9)

Membrane Type:	SBS MODIFIED
Deck Type 7:	Recover
Deck Description:	Min. 2,500 psi structural concrete or concrete plank.
System Type F(3):	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 layers of Flintlastic FR Base T, torch applied
Ply Sheet:	(Optional) Flintlastic FR Base T, torch applied.
Membrane:	Flintlastic FR Cap T, torch applied.
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.)**

END OF THIS ACCEPTANCE