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, including the High Velocity Hurricane Zone.

DESCRIPTION: CertainTeed Modified Bitumen Roof System over Concrete Decks

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

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

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

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

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA #03-0319.12 and consists of pages 1 through 40.
The submitted documentation was reviewed by Frank Zuloaga, RRC.

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Modified Bitumen
Material:	APP/SBS
Deck Type:	Concrete
Maximum Design Pressure	**-355 psf**
Fire Classification:	See General Limitation #1

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.
Flex-I-Glas™ 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.
Flex-I-Glas™ 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 toch 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.

Product	Dimensions	Test Specification	Product Description
Flintlastic FR-P/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 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.
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.
Ultra Poly SMS Base Sheet	39 $^3/_8$" x 32' 10"; Roll weight: 90 lbs. (1 square)	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.
Stormshield	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.
Flexiglas Premium Cap 960	36" x 38" (1 square)	ASTM D 6163, Grade G, Type I	Granule surfaced SBS Modified Bitumen membrane with fiberglass, mat reinforcement for mop application.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
Flintboard ISO	Polyisocyanurate foam insulation	CertainTeed
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
Dens Deck	Water resistant gypsum board	G-P Gypsum Corp.
ENRGY-2, PSI 25	Polyisocyanurate foam insulation	Johns Manville

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ENRGY-2 PLUS	Polyisocyanurate foam / wood fiberboard composite insulation	Johns Manville
FiberGlass Roof Insulation	Glass fiber/Mineral fiber insulation	Johns Manville
Fesco Board	Expanded mineral fiber insulation	Johns Manville
ISORoc	Polyisocyanurate foam / rockwool composite insulation	Johns Manville
Paroc Cap Board	Rockwool insulation	Partek, Inc.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Dekfast Fasteners #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.	UltraFast #14	Insulation fastener for concrete deck.		Johns Manville
6.	UltraFast ASAP	Pre-assembled Insulation fastener and plate		Johns Manville
7.	UltraFast Metal Plate	Galvalume AZ55 steel plate	3" round 3" square	Johns Manville
8.	Olympic Fastener #14	Insulation fastener		Olympic Mfg. Group
9.	Olympic Fastener ASAP	Pre-assembled Insulation fastener and plate		Olympic Mfg. Group
10.	Olympic G-2	Galvalume AZ55 steel plate	3.5" round	Olympic Mfg. Group
11.	Olympic Standard	Galvalume AZ50 steel plate	3" round	Olympic Mfg. Group
12.	HD Insul-Fixx Fastener	Insulation fastener for use in steel and concrete decks		SFS Stadler
13.	Insul-Fixx S	Galvalume AZ55 stress plate	3" round	SFS Stadler

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
14.	System ES-1 (#14)	Pre-assembled Insulation fastener and plate		SFS Stadler
15.	Tru-Fast HD	Insulation fastener for wood and steel decks		The Tru-Fast Corp.
16.	Tru-Fast MP-3	Galvalume AZ50 steel plate	3" round	The Tru-Fast Corp.
17.	Tru-Fast 2.4" Barbed Seam Plates	Galvalume AZ50 steel plate	2.4" round	The Tru-Fast Corp.

EVIDENCE SUBMITTED:

Test Agency/Identifier	Name	Report	Date
Applied Research Laboratories	Physical Properties	28013	06/02/87
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
Exterior Research & Design, Inc.	TAS 114	3513.08.02	08/15/02
	TAS 117	3515.07.03	07/22/03

APPROVED ASSEMBLIES

Membrane Type: APP Modified

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A: Anchor sheet (optional), 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
Pyrox **Minimum 1.3" thick**	**N/A**	**N/A**
ACFoam-II, Isotherm R, ENRGY 2, PSI-25, FlintBoard ISO **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**

Top Insulation Layer	Insulation Fasteners Table 3	Fastener Density/ft^2
Fiberglas **Minimum $^{15}/_{16}$" thick**	**N/A**	**N/A**
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: 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.

Anchor Sheet:	(Optional) One ply of Glas Base, Flex-I Glas Base, Flexiglass 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, Flex-I Glas Base, Flex-I Glas 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 Ultra Poly SMS, Glas Base, Flex-I-Glas Base, Flex-I-Glas 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 STA Plus 5.0, 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, FlintCoat A-150, 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:	-87.5 psf (for top layer minimum $^{15}/_{16}$" thick fiberglas applied in hot asphalt.) (See General Limitations #9) -107.5 psf (for top layer minimum ¾" thick Perlite applied in hot asphalt.) (See General Limitations #9) -227 psf (for top layer minimum ½" thick High Density Wood Fiberboard applied in hot asphalt.) (See General Limitations #9) -240 psf (for top layer minimum ¼" thick Dens Deck applied in hot asphalt.) (See General Limitations #9)

Membrane Type: SBS MODIFIED

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A: Anchor sheet (optional), 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**
Pyrox **Minimum 1.3" thick**	**N/A**	**N/A**
ACFoam-II, Isotherm R, ENRGY 2, PSI-25, FlintBoard ISO **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**

Top Insulation Layer	**Insulation Fasteners Table 3**	**Fastener Density/ft^2**
Fiberglas **Minimum $^{15}/_{16}$" thick**	**N/A**	**N/A**
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: 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.

Anchor Sheet:	(Optional) One ply of Glas Base, Flex-I Glas Base, Flexiglass 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, Flex-I Glas Base, Flex-I Glas 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 Ultra Poly SMS, Glas Base, Flex-I-Glas Base, Flex-I-Glas 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, Ultra Poly SMS, Flexiglas Premium Cap 960 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, FlintCoat A-150, 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:	-87.5 psf (for top layer minimum $^{15}/_{16}$" thick fiberglas applied in hot asphalt.) (See General Limitations #9) -107.5 psf (for top layer minimum ¾" thick Perlite applied in hot asphalt.) (See General Limitations #9) -227 psf (for top layer minimum ½" thick High Density Wood Fiberboard applied in hot asphalt.) (See General Limitations #9) -240 psf (for top layer minimum ¼" thick Dens Deck applied in hot asphalt.) (See General Limitations #9)

Membrane Type: APP Modified

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(2): Base sheet and 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**
ENRGY-2, ENRGY-2 Composite Minimum 1.5" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 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, Flex-I Glas Base, Flex-I Glas FR Base, Poly SMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the composite insulation with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One ply of Ultra Poly SMS, Glas Base, Flex-I-Glas Base, Flex-I-Glas 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 STA Plus 5.0, 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, FlintCoat A-150, 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: -355 psf (See General Limitations # 9)

Membrane Type: SBS MODIFIED

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(2): Base sheet and 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**
ENRGY-2, ENRGY-2 Composite Minimum 1.5" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 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, Flex-I Glas Base, Flex-I Glas FR Base, Poly SMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the composite insulation with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One ply of Ultra Poly SMS, Glas Base, Flex-I-Glas Base, Flex-I-Glas 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, Ultra Poly SMS, Flexiglas Premium Cap 960 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, FlintCoat A-150, 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: -355 psf (See General Limitations # 9)

Membrane Type: APP MODIFIED

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

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

All General and System Limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	**Insulation Fasteners Table 3**	**Fastener Density/ft^2**
Pyrox		
Minimum 1.3" thick	**1, 8 or 15**	**1:2 ft^2**
ENRGY-2, PSI-25		
Minimum 1.4" thick	**1, 8 or 15**	**1:2 ft^2**
Minimum 2" thick	**1, 8, 12 or 15**	**1:3.2 ft^2**
ACFoam-II, Isotherm R, FlintBoard ISO		
Minimum 1.5" thick	**1, 8 or 15**	**1:2 ft^2**
Minimum 2" thick	**1, 8, 12 or 15**	**1:3.2 ft^2**
Fiberglas		
Minimum $^{15}/_{16}$" thick	**1, 8 or 15**	**1:2 ft^2**
Minimum $^{15}/_{16}$" thick	**5, 14 or 15**	**1:2.7 ft^2**
Perlite		
Minimum ¾" thick	**1, 8, 12 or 15**	**1:2 ft^2**
High Density Wood Fiberboard		
Minimum ½" thick	**1, 8, 12 or 15**	**1:2 ft^2**
Dens-Deck		
Minimum ½" thick	**1, 8 or 15**	**1:2 ft^2**

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

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

Any of the insulations listed for Base Layer, above.

Note: Optional top layer of insulation shall be adhered with 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. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet:	One ply of Glas Base, Flex-I Glas Base, Flex-I Glas 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. (See General Limitation #4)
Ply Sheet:	(Optional) One ply of Ultra Poly SMS, Glas Base, Flex-I-Glas Base, Flex-I-Glas 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 STA Plus 5.0, 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, FlintCoat A-150, 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:	-52.5 psf (See General Limitations #9)

Membrane Type: SBS MODIFIED

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type B(2): Base layer of insulation mechanically fastened, optional top layer adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners Table 3	Fastener Density/ft^2
Pyrox		
Minimum 1.3" thick	**1, 8 or 15**	**1:2 ft^2**
ENRGY-2, PSI-25		
Minimum 1.4" thick	**1, 8 or 15**	**1:2 ft^2**
Minimum 2" thick	**1, 8, 12 or 15**	**1:3.2 ft^2**
ACFoam-II, Isotherm R, FlintBoard ISO		
Minimum 1.5" thick	**1, 8 or 15**	**1:2 ft^2**
Minimum 2" thick	**1, 8, 12 or 15**	**1:3.2 ft^2**
Fiberglas		
Minimum $^{15}/_{16}$" thick	**1, 8 or 15**	**1:2 ft^2**
Minimum $^{15}/_{16}$" thick	**5, 14 or 15**	**1:2.7 ft^2**
Perlite		
Minimum ¾" thick	**1, 8, 12 or 15**	**1:2 ft^2**
High Density Wood Fiberboard		
Minimum ½" thick	**1, 8, 12 or 15**	**1:2 ft^2**
Dens-Deck		
Minimum ½" thick	**1, 8, 12 or 15**	**1:2 ft^2**

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

Top Insulation Layer (Optional)	Insulation Fasteners Table 3	Fastener Density/ft^2

Any of the insulations listed for Base Layer, above.

Note: Optional top layer of insulation shall be adhered with 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. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet:	One ply of Glas Base, Flex-I Glas Base, Flex-I Glas 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 Ultra Poly SMS, Glas Base, Flex-I-Glas Base, Flex-I-Glas 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, Ultra Poly SMS, Flexiglas Premium Cap 960 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, FlintCoat A-150, 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:	-52.5 psf (See General Limitations #9)

Membrane Type: APP MODIFIED

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type B(3): Base layer of insulation mechanically fastened, 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/ft^2**
ACFoam-II, ENRGY-2, Multi-Max FA, FlintBoard ISO Minimum 1.5" thick	**1, 5, 8 or 15**	**1:1.33**

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

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Fesco Board Minimum ¾" thick	**N/A**	**N/A**
High Density Wood Fiberboard Minimum ½" thick	**N/A**	**N/A**

Note: Top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft^2. 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, Flex-I Glas Base, Flex-I Glas 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 Ultra Poly SMS, Glas Base, Flex-I-Glas Base, Flex-I-Glas 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 STA Plus 5.0, 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, FlintCoat A-150, 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:	-52.5 psf (For FescoBoard) (See General Limitation #7) -67.5 psf (For High Density Wood Fiberboard) (See General Limitation #7)

Membrane Type:	SBS MODIFIED
Deck Type 3I:	Concrete Decks, Insulated
Deck Description:	2500 psi structural concrete or concrete plank
System Type B(4):	Base layer of insulation mechanically fastened, 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/ft^2**
ACFoam-II, ENRGY-2, Multi-Max FA, FlintBoard ISO Minimum 1.5" thick	**1, 5, 8 or 15**	**1:1.33**

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

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Fesco Board Minimum ¾" thick	**N/A**	**N/A**
High Density Wood Fiberboard Minimum ½" thick	**N/A**	**N/A**

Note: Top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft^2. 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, Flex-I Glas Base, Flex-I Glas 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 Ultra Poly SMS, Glas Base, Flex-I-Glas Base, Flex-I-Glas 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, Ultra Poly SMS, Flexiglas Premium Cap 960 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, FlintCoat A-150, 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:	-52.5 psf (For FescoBoard) (See General Limitation #7) -67.5 psf (For High Density Wood Fiberboard) (See General Limitation #7)

Membrane Type: APP MODIFIED

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

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

All General and System Limitations apply.

One or more layers of any of the following insulations:

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

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

Top Insulation Layer	**Insulation Fasteners Table 3**	**Fastener Density/ft^2**
Perlite **Minimum ¾" thick**	**1, 8, 12 or 15**	**1:2 ft^2**
High Density Wood Fiberboard **Minimum ½" thick**	**1, 8, 12 or 15**	**1:2 ft^2**
Dens-Deck **Minimum ½" thick**	**1, 8, 12 or 15**	**1:2 ft^2**

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density.

Base Sheet: One ply of Glas Base, Flex-I Glas Base, Flex-I Glas 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 Ultra Poly SMS, Glas Base, Flex-I-Glas Base, Flex-I-Glas 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 STA Plus 5.0, 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, FlintCoat A-150, 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:	-52.5 psf (See General Limitations #9)

Membrane Type: SBS MODIFIED

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type C(2): All layers of insulation simultaneously fastened.

All General and System Limitations apply.

One or more layers of any of the following insulations:

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

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

Top Insulation Layer	**Insulation Fasteners Table 3**	**Fastener Density/ft^2**
Perlite **Minimum ¾" thick**	**1, 8, 12 or 15**	**1:2 ft^2**
High Density Wood Fiberboard **Minimum ½" thick**	**1, 8, 12 or 15**	**1:2 ft^2**
Dens-Deck **Minimum ½" thick**	**1, 8, 12 or 15**	**1:2 ft^2**

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density.

Base Sheet: One ply of Glas Base, Flex-I Glas Base, Flex-I Glas 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 Ultra Poly SMS, Glas Base, Flex-I-Glas Base, Flex-I-Glas 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, Ultra Poly SMS, Flexiglas Premium Cap 960 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, FlintCoat A-150, 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:	-52.5 psf (See General Limitations #9)

Membrane Type: APP MODIFIED

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type C(3): All layers of insulation simultaneously fastened.

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**
ENRGY-2, ENRGY-3, PSI-25, ACFoam-II, Multi-Max FA, FlintBoard ISO Minimum 1.5" thick	**1, 8 or 15**	**1:1.33 ft^2**

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

Base Sheet: One ply of Black Diamond Base Sheet self-adhered.

Ply Sheet: (Optional) One ply of Ultra Poly SMS, Glas Base, Flex-I-Glas Base, Flex-I-Glas 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 STA Plus 5.0, 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, FlintCoat A-150, 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: -82.5 psf (See General Limitations #7)

Membrane Type: SBS MODIFIED

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

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

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**
ENRGY-2, ENRGY-3, PSI-25, ACFoam-II, Multi-Max FA, FlintBoard ISO Minimum 1.5" thick	**1, 8 or 15**	**1:1.33 ft^2**

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

Base Sheet: One ply of Black Diamond Base Sheet self-adhered.

Ply Sheet: (Optional) One ply of Ultra Poly SMS, Glas Base, Flex-I-Glas Base, Flex-I-Glas 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, Ultra Poly SMS, Flexiglas Premium Cap 960 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, FlintCoat A-150, 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: -52.5 psf (See General Limitations #7)

Membrane Type: APP MODIFIED

Deck Type 3I: Concrete Decks, Insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

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/ft^2**
Pyrox **Minimum 1.3" thick**	**N/A**	**N/A**
ACFoam-II, Isotherm R, ENRGY-2, PSI-25, FlintBoard ISO **Minimum 1.5" thick**	**N/A**	**N/A**
Fiberglas **Minimum $^{15}/_{16}$" thick**	**N/A**	**N/A**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
High Density Wood Fiberboard **Minimum ½" 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**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
High Density Wood Fiberboard **Minimum ½" 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, Flex-I Glas Base, or Flex-I Glas FR Base mechanically attached as detailed in Fastening #1 or #2, below or one ply of Poly SMS mechanically attached as detailed in Fastening #3 or #4, below.
Fastening #1:	Olympic #14 Screws and metal plates, Dekfast #14 or #15, Tru-Fast #14 or #15 and MP-3 Plates or HD Insulfixx and metal plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 24" o.c.
Fastening #2:	Olympic #14 Screws and metal plates, Dekfast #14 or #15, Tru-Fast #14 or #15 and MP-3 Plates or HD Insulfixx and metal plates at a 4" side lap 12" o.c. and one row in the center of the sheet, 18" o.c.
Fastening #3:	Olympic #14 Screws and metal plates, Dekfast #14 or #15, Tru-Fast #14 or #15 and MP-3 Plates or HD Insulfixx and metal plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 36" o.c.
Fastening #4:	Tru-Fast #14 or #15 and 2" Plates or HD Insulfixx screws and 2" round metal plates at a 4" side lap, 12" o.c.
Ply Sheet:	(Optional) One ply of Ultra Poly SMS, Glas Base, Flex-I-Glas Base, Flex-I-Glas 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 STA Plus 5.0, 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, FlintCoat A-150, 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 3I: Concrete Decks, Insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

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, PSI-25, FlintBoard ISO **Minimum 1.5" thick**	**N/A**	**N/A**
Fiberglas **Minimum $^{15}/_{16}$" thick**	**N/A**	**N/A**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
High Density Wood Fiberboard **Minimum ½" 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**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
High Density Wood Fiberboard **Minimum ½" 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, Flex-I Glas Base, or Flex-I Glas FR Base mechanically attached as detailed in Fastening #1 or #2, below or one ply of Poly SMS mechanically attached as detailed in Fastening #3 or #4, below.
Fastening #1:	Olympic #14 Screws and metal plates, Dekfast #14 or #15, Tru-Fast #14 or #15 and MP-3 Plates or HD Insulfixx and metal plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 24" o.c.
Fastening #2:	Olympic #14 Screws and metal plates, Dekfast #14 or #15, Tru-Fast #14 or #15 and MP-3 Plates or HD Insulfixx and metal plates at a 4" side lap 12" o.c. and one row in the center of the sheet, 18" o.c.
Fastening #3:	Olympic #14 Screws and metal plates, Dekfast #14 or #15, Tru-Fast #14 or #15 and MP-3 Plates or HD Insulfixx and metal plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 36" o.c.
Fastening #4:	Tru-Fast #14 or #15 and 2" Plates or HD Insulfixx screws and 2" round metal plates at a 4" side lap, 12" o.c.
Ply Sheet:	(Optional) One ply of Ultra Poly SMS, Glas Base, Flex-I-Glas Base, Flex-I-Glas 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, Ultra Poly SMS, Flexiglas Premium Cap 960 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, FlintCoat A-150, 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: APP MODIFIED

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

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**
ACFoam-II, Isotherm R, ENRGY-2, ENRGY-3, PSI-25, FlintBoard ISO		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners Table 3**	**Fastener Density/ft^2**
Perlite		
Minimum ¾" thick	**N/A**	**N/A**
High Density Wood Fiberboard		
Minimum ½" 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 Flexiglas, Flexiglas FR, SBS FR, Poly SMS or Ultra Poly SMS Base Sheet mechanically attached as detailed in Fastening #1 below or one ply of Poly SMS or Ultra Poly SMS Base Sheet mechanically attached as detailed in Fastening #2 below.

Fastening #1: Olympic #14 and metal plates, Dekfast #14 with Hex Metal Plate, #14 Roofgrip with Metal Plate or Tru-Fast HD with MP-3 plates at a 4" side lap 6" o.c. and two rows staggered in the center of the sheet, 6" o.c.
(Maximum Design Pressure -67.5 psf; See General Limitation #7)

Fastening #2: Olympic #14 and metal plates, Dekfast #14 with Hex Metal Plate, #14 Roofgrip with Metal Plate or Tru-Fast HD with MP-3 plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 12" o.c.
(Maximum Design Pressure -120 psf; See General Limitation #7)

Ply Sheet: (Optional) One ply of Ultra Poly SMS, Glas Base, Flex-I-Glas Base, Flex-I-Glas 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 STA Plus 5.0, 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, FlintCoat A-150, 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 Options Above

Membrane Type: SBS MODIFIED

Deck Type 3I: Concrete Decks

Deck Description: 2500 psi structural concrete or concrete plank

System Type D(4): All layers of insulation and base sheet simultaneously attached.

All General and System Limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	**Insulation Fasteners Table 3**	**Fastener Density/ft^2**
ACFoam-II, Isotherm R, ENRGY-2, ENRGY-3, PSI-25, FlintBoard ISO Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners Table 3**	**Fastener Density/ft^2**
Perlite Minimum ¾" thick	**N/A**	**N/A**
High Density Wood Fiberboard Minimum ½" 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 Flexiglas , Flexiglas FR, SBS FR, Poly SMS or Ultra Poly SMS Base Sheet mechanically attached as detailed in Fastening #1 below or one ply of Poly SMS or Ultra Poly SMS Base Sheet mechanically attached as detailed in Fastening #2 below.

Fastening #1: Olympic #14 and metal plates, Dekfast #14 with Hex Metal Plate, #14 Roofgrip with Metal Plate or Tru-Fast HD with MP-3 plates at a 4" side lap 6" o.c. and two rows staggered in the center of the sheet, 6" o.c.
(Maximum Design Pressure -67.5 psf; See General Limitation #7)

Fastening #2: Olympic #14 and metal plates, Dekfast #14 with Hex Metal Plate, #14 Roofgrip with Metal Plate or Tru-Fast HD with MP-3 plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 12" o.c.
(Maximum Design Pressure -120 psf; See General Limitation #7)

Ply Sheet: (Optional) One ply of Ultra Poly SMS, Glas Base, Flex-I-Glas Base, Flex-I-Glas 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, Ultra Poly SMS, Flexiglas Premium Cap 960 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, FlintCoat A-150, 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 Options Above

Membrane Type: APP/SBS MODIFIED

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type D(5): All layers of insulation and base sheet simultaneously attached.

All General and System Limitations apply.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners Table 3	Fastener Density/ft^2
ACFoam-II, Isotherm R, ENRGY-2, ENRGY-3, PSI-25, FlintBoard ISO Minimum 1.5" thick	**N/A**	**N/A**

Note: Insulation 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 Ultra Poly SMS Base Sheet mechanically attached as detailed in below:

Fastening: Tru-Fast EHD with 2.4" Barbed Seam Plates space 12" o.c. in a 4" side lap. The lap is heat welded closed encapsulating the fastener row.

Ply Sheet: None.

Membrane: Flintlastic STA, Flintlastic STA Plus 5.0, Flintlastic Diamond GTA, Flintlastic GTA, GTA-FR or Flintlastic GTS torch adhered to base 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, FlintCoat A-150, 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: -60 psf (See General Limitation #7)

Membrane Type: APP MODIFIED

Deck Type 3: Concrete Decks, Non-insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type E(1): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet:	One ply of Glas Base, Flex-I Glas Base, or Flex-I Glas FR Base mechanically attached as detailed in Fastening #1 or #2, below or one ply of Poly SMS mechanically attached as detailed in Fastening #3 or #4, below.
Fastening #1:	Olympic #14 Screws and metal plates, Dekfast #14 or #15, Tru-Fast #14 or #15 and MP-3 Plates or HD Insulfixx and metal plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 24" o.c.
Fastening #2:	Olympic #14 Screws and metal plates, Dekfast #14 or #15, Tru-Fast #14 or #15 and MP-3 Plates or HD Insulfixx and metal plates at a 4" side lap 12" o.c. and one row in the center of the sheet, 18" o.c.
Fastening #3:	Olympic #14 Screws and metal plates, Dekfast #14 or #15, Tru-Fast #14 or #15 and MP-3 Plates or HD Insulfixx and metal plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 36" o.c.
Fastening #4:	Tru-Fast #14 or #15 and 2" Plates or HD Insulfixx screws and 2" round metal plates at a 4" side lap, 12" o.c.
Ply Sheet:	(Optional) One ply of Ultra Poly SMS, Glas Base, Flex-I-Glas Base, Flex-I-Glas 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 STA Plus 5.0, 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, FlintCoat A-150, 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 3: Concrete Decks, Non-insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type E(2): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet:	One ply of Glas Base, Flex-I Glas Base, or Flex-I Glas FR Base mechanically attached as detailed in Fastening #1 or #2, below or one ply of Poly SMS mechanically attached as detailed in Fastening #3 or #4, below.
Fastening #1:	Olympic #14 Screws and metal plates, Dekfast #14 or #15, Tru-Fast HD with MP-3 plates or HD Insulfixx and metal plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 24" o.c.
Fastening #2:	Olympic #14 Screws and metal plates, Dekfast #14 or #15, Tru-Fast HD with MP-3 plates or HD Insulfixx and metal plates at a 4" side lap 12" o.c. and one row in the center of the sheet, 18" o.c.
Fastening #3:	Olympic #14 Screws and metal plates, Dekfast #14 or #15, Tru-Fast HD with MP-3 plates or HD Insulfixx and metal plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 36" o.c.
Fastening #4:	Tru-Fast #14 or #15 and 2" Plates or HD Insulfixx screws and 2" round metal plates at a 4" side lap, 12" o.c.
Ply Sheet:	(Optional) One ply of Ultra Poly SMS, Glas Base, Flex-I-Glas Base, Flex-I-Glas 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, Ultra Poly SMS, Flexiglas Premium Cap 960 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, FlintCoat A-150, 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: APP MODIFIED

Deck Type 3: Concrete Decks, Non-insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(1): Base sheet adhered with approved asphalt.

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 ply of Glas Base, Flex-I Glas Base, Flex-I Glas FR Base, Poly SMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of GS Black Diamond Base self-adhered to the substrate.

Ply Sheet: (Optional) One ply of Ultra Poly SMS, Glas Base, Flex-I-Glas Base, Flex-I-Glas 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 STA Plus 5.0, 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, FlintCoat A-150, 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: -240 psf (See General Limitation #9)

Membrane Type: SBS MODIFIED

Deck Type 3: Concrete Decks, Non-insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(2): Base sheet adhered with approved asphalt.

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 ply of Glas Base, Flex-I Glas Base, Flex-I Glas FR Base, Poly SMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of GS Black Diamond Base self-adhered to the substrate.

Ply Sheet: (Optional) One ply of Ultra Poly SMS, Glas Base, Flex-I-Glas Base, Flex-I-Glas 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, Ultra Poly SMS, Flexiglas Premium Cap 960 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, FlintCoat A-150, 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: -240 psf (See General Limitation #9)

CONCRETE DECK SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap 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 with Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9B-72 of the Florida Administrative Code.

END OF THIS ACCEPTANCE