MIAMI-DADE COUNTY

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)

Viridian Systems
300 Southwest Ave
Tallmadge, OH 44278

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 the BCCO and accepted by the Building Code and Product Review Committee 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 BCCO (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. BCCO reserves the right to revoke this acceptance, if it is determined by BCCO 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: Viridian Systems Conventional Built-Up-Roof Systems Over Wood Decks

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

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

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

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

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

This revises NOA # 08-0714.07 and consists of pages 1 through 31.
The submitted documentation was reviewed by Alex Tigera.

MIAMI-DADE COUNTY APPROVED

NOA No.: 09-0722.08
Expiration Date: 08/01/13
Approval Date: 09/09/09

ROOFING ASSEMBLY APPROVAL

Category: Roofing
Sub-Category: Built-Up Roofing
Material: Fiberglass
Deck Type: Wood
Maximum Design Pressure -82.5 psf

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
Aluminum Shield	5, 55 gallons	ASTM D 1227 type I	An asphalt based, asbestos free, non-fibrated aluminized coating.
ElastoShield	5, 55 gallons	ASTM D 1227 type III	A polymer modified, asbestos free asphalt roofing emulsion.
HK Aluminum Shield	5, 55 gallons	ASTM D 2824 Type I	Asphalt based, asbestos free non-fibered aluminum paint.
HK Aluminum Shield Fibrated	5, 55 gallons	ASTM D 2824 type III	Asphalt based, asbestos free aluminized coating.
HK ReCoat	5, 55 gallons	ASTM D 1227 type III	An asphalt clay, asbestos free roofing emulsion.
BUR Plus™ 101	Kegs	ASTM D 312	Approved, Type III asphalt.
BUR Plus™ 202	40 lb. boxes	ASTM D 312	Approved modified SEBS asphalt.
BUR Plus™ 202A	42 lb. boxes	ASTM D 412	Approved polymer modified asphalt.
BUR Plus™ 303	40 lb. boxes	ASTM D 312	Approved, modified SEBS asphalt.
BUR Plus™ 404	40 lb. boxes	ASTM D 312	Approved, heavy modified SEBS asphalt.
BUR Plus™ 505	40 lb. boxes	ASTM D 450	Approved, modified coal tar pitch adhesive.
BUR Plus™ 606	40 lbs. boxes	ASTM D 312	Approved, modified SEBS asphalt.
HK Tar Plus	Kegs	ASTM D 450	Approved, modified coal tar pitch
Multi-Ply Adhesive	5, 55 gallon pails	Proprietary	Asphalt based, asbestos free adhesive.
Multi-Ply Adhesive-SEBS	5, 55 gallon pails	Proprietary	Asphalt based, asbestos free SEBS modified adhesive.
Pika Ply Adhesive	5, 55 gallon	Proprietary	Asphalt based, asbestos free SBS adhesive.
Base Sheet Adhesive	5, 55 gallon	Proprietary	Asphalt/Urethane moisture-cure adhesive.

Product	Dimensions	Test Specification	Product Description
HK Tarred Felt	39.5" x 333'	ASTM D 2626	Organic roofing felt saturated with coal tar.
HK Tarred Glass	39.5" x 333'	ASTM D 4990	Fiberglass sheet impregnated with coal tar.
BUR Plus™ Polyester Ply	39.5" x 333'	Proprietary	A 170 gram/m^2 uncoated polyester ply sheet.
BUR Plus™ Polyester Ply 200	39.5" x 333'	Proprietary	A 200 gram/m^2 uncoated polyester ply sheet.
BUR Plus™ Polyester Ply 250	39.5" x 333'	Proprietary	A 250 gram/m^2 uncoated polyester ply sheet.
Multi-Ply Glass CL	36" x 72'; weight: 33 lbs./sq.	ASTM D 2178	Tri-laminated polyester / glass / polyester mat coated with asphalt.
Multi-Ply Glass CL /W	39 $^3/_8$" x 99' x 45 mils	ASTM D 5147	SBS modified fiberglass reinforced base sheet.
Multi-Ply Glass	36" x 72'; weight: 33 lbs./sq.	ASTM D 2178	Fiberglass sheet coated with asphalt.
HK Glass Ply	36" x 180'	ASTM D 2178 Type IV	Type IV fiberglass base and/or ply sheet
Premium Ply	36" x 180'	ASTM D 2178 Type VI	Type VI fiberglass ply sheet.
Premium Ply W	39$^3/_8$" x 165'	ASTM D 2178	Type VI fiberglass ply sheet.
Performance Ply	39.5" x 68'		Spunbonded, non-woven bitumen coated polyester sheet.
Pika Ply Supreme FR	39" x 32.8'	ASTM D 5147	SBS/SIS/ES/SEBS, composite reinforced, granule surfaced cap sheet.
Pika Ply Supreme FR (HR)	39" x 32.8'	ASTM D 5147	SEB/SIS/ES/SEBS, composite reinforced, highly reflective granule surfaced cap sheet.
Pika Ply Supreme FR (TG)	39" x 32.8'	ASTM D 5147	SEB/SIS/ES/SEBS, composite reinforced, granule surfaced heat welded cap sheet.
Pika Ply Supreme FR Smooth	39" x 32.8'	ASTM D 5147	SBS/SIS/ES/SEBS, composite reinforced, smooth surfaced ply or cap sheet.
Pika Ply HI-TEC 60	39" x 67'	ASTM D 5147	Fiberglass/polyester reinforced asphalt saturated base/ply sheet.
Pika Ply HI-TEC 60 Type II	39" x 67'	ASTM D 5147	Fiberglass/polyester reinforced asphalt saturated base/ply sheet.

Product	Dimensions	Test Specification	Product Description
Pika Ply HI-TEC 80	39" x 49'	ASTM D5147	SBS, composite reinforced, smooth surface ply or cap sheet.
Pika Ply HI-TEC Granule	39" x 32.8'	ASTM D5147	SBS, composite reinforced, granule surfaced cap sheet.
Arrowglas IV	36" x 180'	ASTM D 2178 Type IV	Type IV fiberglass base and/or ply sheet
Arrowbase	36" x 108'	ASTM D 4601	Fiberglass sheet coated with asphalt.
Modified Arrowbase	36" x 72'	ASTM D 4601	Tri-laminated polyester/glass/polyester mat coated with asphalt.
Pika Ply SS-3P	39" x 32.8'	ASTM D 5147	Polyester reinforced, smooth surface ply/cap sheet.
Pika Ply SS-4	39" x 32.8'	ASTM D 5147	Polyester reinforced, smooth surface ply/cap sheet.
Pika Ply 350S	39" x 25'	ASTM D 5147	Polyester reinforced, smooth surface cap sheet.
Pika Ply MS-3G	39" x 32.8'	ASTM D 5147	Fiberglass reinforced, fire retardant, granule cap sheet.
Pika Ply 250 GR	39" x 32.8'	ASTM D 5147	Polyester reinforced, fire retardant, granule cap sheet.
Pika Ply MS-4	39" x 32.8'	ASTM D 5147	Polyester reinforced, fire retardant, granule cap sheet.
Performance Ply MS FR	39" x 33'	ASTM D 5147	Polyester reinforced, fire retardant, granule cap sheet.
Performance Ply SS	39" x 35'	ASTM D 5147	Polyester reinforced, smooth surface ply/cap sheet.
Premium Cap Sheet	39" x 32.8'	ASTM D 5147	Fiberglass reinforced, granule cap sheet.
Pika Ply SS-2	36" x 68'		SEBS polymer modified asphalt, polyester reinforced, smooth surfaced membrane.
Premium Cap	$39^3/_8$" x 33'	ASTM D 3909	Fiberglass reinforced mineral surface cap sheet.
Weather Ply	39.5" x 68'		Spunbonded, non-woven bitumen coated polyester sheet.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ACFoam II	Polyisocyanurate foam insulation	Atlas Energy Products
ConPearl	Expanded perlite mineral fiber	Conglas
Esgard Fiberboard	Wood fiber board	EMCO Ltd.
BP High Strength Fiberboard	High Density Wood fiber Board	EMCO Ltd.
GAF Permalite	Expanded mineral fiber	GAF Mat'l. Corp.
GAF Fiberboard	Wood fiber board	GAF Mat'l. Corp.
GAFTEMP High Density Fiberboard	High density wood fiberboard insulation.	GAF Mat'l. Corp.
Wood Fiberboard	Regular wood fiber insulation	Generic
High Density Wood Fiberboard	High Density Wood fiber Board	Generic
Perlite Insulation	Perlite insulation board	Generic
DensDeck, DensDeck Prime DensDeck Duraguard	Gypsum board	GP Gypsum
Hubert Fiberboard	Wood fiber board	Huebert Fiberboard, Inc
H-Shield	Polyisocyanurate foam insulation	Hunter Panels
H-Shield WF	Polyisocyanurate/wood fiber composite insulation board	Hunter Panels
ENRGY-1, ENRGY-2, Plus, UltraGard Gold, PSI-25, ENRGY 3	Polyisocyanurate foam 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
Structodek, Structodek FS	High Density Wood Fiber insulation board.	Masonite
Paroc Cap Board	Rockwool insulation	Partek, Inc.
Multi-Max, FA	Polyisocyanurate foam insulation	Rmax, Inc.
Fiber Base	Asphalt coated wood fiber insulation	Temple Inland Forest Products Corp.
SECUROCK	Gypsum board	US Gypsum

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	#12 & #14 Dekfast Fastener	Insulation fastener		SFS Intec, Inc.
2.	Dekfast Hex Plate	Galvalume AZ50 steel plate	2 $^7/_8$" x 3 ¼"	SFS Intec, Inc.
3.	Dekfast Lock Plate	Polypropylenel plate	3" x 3 ¼"	SFS Intec, Inc.
4.	#12 Roofgrip Fasteners	Insulation fastener for wood and steel.		OMG, Inc.
5.	AccuTrac Hextra Fasteners	Insulation fastener for wood and steel		OMG, Inc.
6.	Metal Plate	Galvalume stress plate.	3" round 3" square	OMG, Inc.
7.	Gearlok Plastic Plate	Polypropylene round plate	3.2"	OMG, Inc.
8.	UltraFast	Insulation fastener for wood and steel.		Johns Manville
9.	UltraFast Metal Plate	Galvalume AZ55 steel plate	3" square & 3" round	Johns Manville
10.	UltraFast Plastic Plate	High Density Polyolefin round plate	3" round	Johns Manville
11.	Olympic Fastener #12 & #14	Insulation fastener		OMG, Inc.
12.	Olympic Standard	Galvalume AZ50 steel plate	3" round	OMG, Inc.
13.	Olympic	Polypropylene round plate	3" round	OMG, Inc.
14.	Olympic G-2	Galvalume AZ55steel plate	3.5round	OMG, Inc.
15.	Insul-Fixx Fastener	Insulation fastener for steel and wood decks		SFS Intec, Inc.
16.	Isofast IG Fastener	Insulation fastener for steel and wood decks		SFS Intec, Inc.
17.	Insul-Fixx S Plate	Galvalume AZ50 steel plate	3" round	SFS Intec, Inc.
18.	Isofast IG/IG Plate	Galvalume AZ50 steel plate	various	SFS Intec, Inc.
19.	Tru-Fast Fasteners	Insulation fastener for wood and steel decks		The Tru-Fast Corp.
20.	Tru-Fast MP-3	Galvalume AZ50 steel plate	3" round	The Tru-Fast Corp.
21.	Tru-Fast Plates	Galvalume AZ55 steel plate	3" round	The Tru-Fast Corp.
22.	Tru-Fast Plates	Polyethylene plastic plate	3" round	The Tru-Fast Corp.
23.	OMG Strap Toggle	Insulation fastener		OMG, Inc.

APPROVED SURFACING/COATING OPTIONS:

TABLE 4

System Number	Application
1.	400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved asphalt at a rate of 40 lb./sq. or in a flood coat of BUR Plus 505 or HK Tar Plus at a rate of 75 lbs./sq.
2.	400 lb./sq. gravel or 300 lb./sq. slag in Multi-Ply Adhesive or Multi-Ply Adhesive SEBS at a rate of 4-5 gal./sq.
3.	60 lbs. of roofing granules embedded in Multi-Ply Adhesive at a rate of 3-4 gal./sq.
4.	ElastoShield or HK ReCoat at a rate of 5 gal./sq. followed by HK Aluminum Shield at a rate of 0.75gal./sq.
5.	HK Aluminum Shield Fibrated at a rate of 1.5-2.0 gal./sq.
6.	Gravel or slag at 400 lbs. or 300 lbs./sq., respectively, adhered with approved asphalt at an application rate of 60 lbs./sq.
7.	Gravel at 400 lbs./sq., adhered with Weatherizer KV at an application rate of 3-4 gal./sq., or Multi-Ply Adhesive or Pika Ply Adhesive at an application rate of 4-5 gal/sq.
8.	Gravel at 400 lbs./sq., adhered with Tarshield WB at an application rate of 4-5 gal./sq.
9.	Gravel at 500 lbs/sq., adhered in HK Tarshield at a rate of 5-7 gal/sq.
10.	One coat of Weatherizer KV at an application rate of 3 gal/sq, followed by one coat of White Roof Coating Base Coat at an application rate of 1 gal/sq. and one coat of White Roof Coating at an application rate of 1 gal/sq.
11.	One coat of White Roof Coating Base Coat at an application rate of 1.5 gal/sq. and one coat of White Roof Coating at an application rate of 1.5 gal/sq.
12.	One coat of Weatherizer KV at an application rate of 3 gal/sq,, followed by one coat of HK Aluminum Shield Fibrated at an application rate of 2-2.5 gal/sq.
13.	HK Aluminum Shield Fibrated at an application rate of 2-2.5 gal/sq.
14.	One coat of HK Aluminum Shield Fibrated at an application rate of 2-2.5 gal/sq., followed by one coat of HK Aluminum Shield at an application rate of 0.25 gal/sq.

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Test Name/Report	Date
Factory Mutual	FMRC 4470	J.I. 1V9A3.AM	11/07/92
Factory Mutual	FMRC 4470	J.I. 0W7A4.AM	02/09/93
Factory Mutual	FMRC 4470	J.I. 0X2A0.AM	03/30/93
Factory Mutual	FMRC 4470	J.I. 0P3A6.AM	01/15/88
Factory Mutual	FMRC 4470	J.I. 1R4A2.AM	03/14/90
Factory Mutual	FMRC 4470	J.I. 1R6A2.AM	04/21/91
Factory Mutual	FMRC 4470	J.I. 1T7A2.AM	02/28/92
Factory Mutual	FMRC 4470	J.I. 1T7A1.AM	01/10/92
Factory Mutual	FMRC 4470	J.I. 0X0A9.AM	03/25/94
Factory Mutual	FMRC 4470	J.I. 0W6A2.AM	02/05/93
Factory Mutual	FMRC 4470	J.I. 0X7A4.AM	08/26/93
Factory Mutual	FMRC 4470	J.I. 3Y4A1.AM	09/20/95
Factory Mutual	FMRC 4470	J.I. 4D9A5.AM	01/15/99
Factory Mutual	FMRC 4470	J.I. 1D7A4.AM	11/09/98
Factory Mutual	FM 4470	3031094	03/26/08
Warnock Hersey	ASTM E 108	495-R-0344	01/01/90
Warnock Hersey	ASTM E 108	495-R-0400	01/01/90
Warnock Hersey	ASTM E 108	495-R-0430	01/01/90
Warnock Hersey	ASTM E 108	495-R-0447	01/01/90
Warnock Hersey	ASTM E 108	495-R-0526	01/01/90
Warnock Hersey	ASTM E 108	495-R-0400A	01/01/90
Exterior Research & Design, LLC	TAS 114(J)	#4473.10.97-1	11/17/97

APPROVED ASSEMBLIES:

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank

System Type A: 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.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ACFoam II, ENRGY-2, ENRGY-2 Plus, Isoroc, Multi-Max Minimum 1" thick	N/A	N/A

Base or Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
BP High Strength, GAFTEMP High Density, High Density Wood Fiberboard, Sturdi-Top, Fiber Base HD1, HD6, Structodeck, Esgard, Fiberboard, GAFTEMP Fiberboard, Huebert Fiberboard Minimum ½" thick	N/A	N/A
ConPerl, GAFTEMP Permalite, FescoBoard, Perlite Minimum ¾" 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 Multi-Ply Glass CL fastened to the deck as described below.

Fastening: Fasten anchor sheet with approved nails and tin caps at a 4" side lap 9" o.c. and two rows staggered in the center of the sheet 12" o.c.

Base Sheet: (Optional) One ply of Pika Ply SS-2, Premium Ply, HK Glass Ply, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply or an approved ASTM D 4601 base sheet adhered with approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or,
one ply of Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, or Multi-Ply Glass CL adhered with BUR Plus 505 or HK Tar Plus at a rate of 20-40 lbs./sq.; or,
one ply of Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, or Multi-Ply Glass CL/W adhered with Multi-Ply Adhesive at a rate of 2.5 to 3 gal./sq.

Ply Sheet:	Two or more plies of Premium Ply, HK Glass Ply, BUR Plus Polyester Ply, Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply, Performance Ply W or an approved ASTM D 2178 ply sheet, in any combination, adhered to any of the base sheets noted above with approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or, two or more plys of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, HK Tarred Felt or HK Tarred Glass, in any combination, adhered to Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, or Multi-Ply Glass CL base sheets with BUR Plus 505 or HK Tar Plus at a rate of 20-40 lbs./sq.; or, two or more plys of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply or Performance Ply W, in any combination, adhered to Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply or Weather Ply base sheets with Multi-Ply Adhesive at a rate of 2.5 to 3 gal./sq.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications Apply any coating system listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-45 psf; (See General Limitation #9.)

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank

System Type B(1): Base layer of insulation mechanically attached, 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
ENRGY-2, H-Shield		
Minimum 1.4" thick	1, 4, 11 or 19	1:3 ft^2
ACFoam II, ENRGY 2 Plus, H-Shield		
Minimum 1.5" thick	1, 4, 11 or 19	1:4 ft^2
ISORoc		
Minimum 1.5" thick	1, 4, 11 or 19	1:2.67 ft^2
Multi-Max, H-Shield		
Minimum 1.5" thick	1, 4, 5, 11, 15 or 19	1:2.9 ft^2
Fiberglas		
Minimum $^{15}/_{16}$" thick	1, 4, 5, 9, 11, 15 or 19	1:2.67 ft^2
ConPerl, GAFTEMP Permalite, FescoBoard, Perlite		
Minimum ¾" thick	1, 4, 11 or 19	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 fastener details).

Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
BP High Strength, GAFTEMP High Density, High Density Wood Fiberboard, Sturdi-Top, Fiber Base HD1, HD6, Structodeck, Esgard, Wood Fiberboard, GAFTEMP Fiberboard, Huebert Fiberboard		
Minimum ½" thick	N/A	N/A
ConPerl, GAFTEMP Permalite, FescoBoard, Perlite, Paroc Cap Board		
Minimum ¾" 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 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:	(Optional) One ply of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply or an approved ASTM D 4601 base sheet adhered with approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or, one ply of Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, or Multi-Ply Glass CL adhered with BUR Plus 505 or HK Tar Plus at a rate of 20-40 lbs./sq.; or, one ply of Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, or Multi-Ply Glass CL/W adhered with Multi-Ply Adhesive at a rate of 2.5 to 3 gal./sq.
Ply Sheet:	Two or more plies of Premium Ply, HK Glass Ply, BUR Plus Polyester Ply, Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply, Performance Ply W or an approved ASTM D 2178 ply sheet, in any combination, adhered to any of the base sheets noted above with approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or, two or more plies of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, HK Tarred Felt or HK Tarred Glass, in any combination, adhered to Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, or Multi-Ply Glass CL base sheets with BUR Plus 505 or HK Tar Plus at a rate of 20-40 lbs./sq.; or, two or more plies of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply or Performance Ply W, in any combination, adhered to Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply or Weather Ply base sheets with Multi-Ply Adhesive at a rate of 2.5 to 3 gal./sq.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications Apply any coating system listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-45 psf; (See General Limitation #9.)

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank attached with 2-½" wood screws spaced 6" o.c. at panel perimeters and intermediate supports.

System Type B(2): Base layer of insulation mechanically attached, 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
ENRGY-2, H-Shield		
Minimum 1.5" thick	16	1:1.33 ft^2

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

Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
High Density Wood Fiberboard		
Minimum ½" 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 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: (Optional) One ply of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply or an approved ASTM D 4601 base sheet adhered with approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or,
one ply of Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, or Multi-Ply Glass CL adhered with BUR Plus 505 or HK Tar Plus at a rate of 20-40 lbs./sq.; or,
one ply of Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, or Multi-Ply Glass CL/W adhered with Multi-Ply Adhesive at a rate of 2.5 to 3 gal./sq.

Ply Sheet:	Two or more plies of Premium Ply, HK Glass Ply, BUR Plus Polyester Ply, Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply, Performance Ply W or an approved ASTM D 2178 ply sheet, in any combination, adhered to any of the base sheets noted above with approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or, two or more plys of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, HK Tarred Felt or HK Tarred Glass, in any combination, adhered to Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, or Multi-Ply Glass CL base sheets with BUR Plus 505 or HK Tar Plus at a rate of 20-40 lbs./sq.; or, two or more plys of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply or Performance Ply W, in any combination, adhered to Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply or Weather Ply base sheets with Multi-Ply Adhesive at a rate of 2.5 to 3 gal./sq.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications Apply any coating system listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-82.5 psf; (See General Limitation #7.)

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank

System Type B(3): Base layer of insulation mechanically attached, top layer adhered with approved asphalt

Thermal Barrier: Minimum 0.5" thick DensDeck Prime placed on top of wood deck, with joints offset minimum 6" from deck joints.

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
ENRGY 3, Hy-Therm AP, H-Shield		
Minimum 1.5" thick	11, 19, 23	1:2

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	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ConPerl, GAFTEMP PErmalite, Permalite Roof Insulation, Fesco Board		
Minimum 0.75" thick	N/A	N/A
High Density Fiberboard, GAFTEMP High Density Fiberboard, Roof Insulating Board, Fiber Base HD1, Fiberbase HD6, Structodek		
Minimum 0.5" thick	N/A	N/A

Note: Top layer of insulation shall be adhered with BUR Plus 101, 102, 202, 202A, 303 or 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. Insulations listed as the base layer shall only be used as the base layer with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: One or more plies of Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, BUR Plus Polyester Ply, BUR Plust Polyester Ply 200, BUR Plus Polyester Ply 250, Pika Ply HI-TEC 80, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II or GAFGLAS #75, adhered in a full mopping of approved asphalt, BUR Plus 101, BUR Plus 102, BUR Plus 202, BUR Plus 202A or BUR Plus 303 applied within the EVT range and at a rate of 25 lbs./sq.

Ply Sheet:	One or more plies of Pika Ply HI-TEC 80, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II, HK Glass Ply IV, Arrowglas IV, Premium Ply, Arrowglass VI, Performance Ply, BUR Plus Polyester Ply, BUR Plus Polyester Ply 200, BUR Plus Polyester Ply 250, Glasply IV, Glasply Premier, PermaPly #28, GAFGLAS Ply 4, GAFGLAS FlexPly 6, Multi-Ply Glass or Multi-Ply Glass CL, adhered in a full mopping of approved asphalt, BUR Plus 101, BUR Plus 102, BUR Plus 202, BUR Plus 202A or BUR Plus 303 applied within the EVT range and at a rate of 25 lbs./sq.
Membrane:	Pika Ply HI-TEC Granule, Pika Ply HI-TEC 80, Pika Ply HI-TEC 80 Plus, Pika Ply Supreme FR Smooth, Pika Ply Supreme FR, Pika Ply Supreme FR (HR), Performance Ply MS FR, Pika Ply MS-4, adhered in a full mopping of approved asphalt, BUR Plus 101, BUR Plus 102, BUR Plus 202, BUR Plus 202A or BUR Plus 303 applied within the EVT range and at a rate of 25 lbs./sq. with a minimum 4" wide headlap. Or Pika Ply Supreme FR (TG), heat welded with a minimum 4" wide headlap.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications Apply any coating system listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-45.0 psf; (See General Limitation #9.)

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank

System Type B(4): Base layer of insulation mechanically attached, top layer adhered with approved asphalt

Thermal Barrier: Minimum 0.5" thick DensDeck Prime placed on top of wood deck, with joints offset minimum 6" from deck joints.

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, H-Shield		
Minimum 1.5" thick	11	1:2

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	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ACFoam II, H-Shield		
Minimum 1.5" thick	N/A	N/A
Dens Deck		
Minimum 0.25" thick	N/A	N/A

Note: Top layer of insulation shall be adhered with Olybond Classic at a rate of 1 gal/sq, allowed to rise 1/8"-1/4" before insulation is applied. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as the base layer shall only be used as the base layer with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: One or more plies of Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, BUR Plus Polyester Ply, BUR Plust Polyester Ply 200, BUR Plus Polyester Ply 250, Pika Ply HI-TEC 80, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II or GAFGLAS #75, adhered in a full mopping of approved asphalt, BUR Plus 101, BUR Plus 102, BUR Plus 202, BUR Plus 202A or BUR Plus 303 applied within the EVT range and at a rate of 25 lbs./sq.

Ply Sheet:	One or more plies of Pika Ply HI-TEC 80, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II, HK Glass Ply IV, Arrowglas IV, Premium Ply, Arrowglass VI, Performance Ply, BUR Plus Polyester Ply, BUR Plus Polyester Ply 200, BUR Plus Polyester Ply 250, Glasply IV, Glasply Premier, PermaPly #28, GAFGLAS Ply 4, GAFGLAS FlexPly 6, Multi-Ply Glass or Multi-Ply Glass CL, adhered in a full mopping of approved asphalt, BUR Plus 101, BUR Plus 102, BUR Plus 202, BUR Plus 202A or BUR Plus 303 applied within the EVT range and at a rate of 25 lbs./sq.
Membrane:	Pika Ply HI-TEC Granule, Pika Ply HI-TEC 80, Pika Ply HI-TEC 80 Plus, Pika Ply Supreme FR Smooth, Pika Ply Supreme FR, Pika Ply Supreme FR (HR), Performance Ply MS FR, Pika Ply MS-4, adhered in a full mopping of approved asphalt, BUR Plus 101, BUR Plus 102, BUR Plus 202, BUR Plus 202A or BUR Plus 303 applied within the EVT range and at a rate of 25 lbs./sq. with a minimum 4" wide headlap. Or Pika Ply Supreme FR (TG), heat welded with a minimum 4" wide headlap.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications Apply any coating system listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-45.0 psf; (See General Limitation #9.)

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank

System Type B(5): Base layer of insulation mechanically attached, top layer adhered with approved adhesive

Thermal Barrier: Minimum 5/8" thick DensDeck placed on top of wood deck, with joints offset minimum 6" from deck joints.

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, H-Shield Minimum 1.5" thick	11	1:2
ACFoam II, H-Shield Minimum 2.0" thick	11	1:4

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.

Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
(Optional) ACFoam II, H-Shield Minimum 1.5" thick	N/A	N/A

Note: Optional middle layer shall be adhered with OlyBond 500 in 0.75-1" wide beads spaced maximum 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as the base layer shall only be used as the base layer with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Dens Deck Prime Minimum 0.25" thick	N/A	N/A

Note: Top layer of insulation shall be adhered with OlyBond 500 in 0.75-1" wide beads spaced maximum 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as the base layer shall only be used as the base layer with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: One or more plies of Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II, Arrowbase or Modified Arrowbase, adhered in Base Sheet Adhesive applied at 1.5 gal/sq.

Ply Sheet:	One or more plies of Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II, Arrowbase or Modified Arrowbase, adhered in Multi-Ply Adhesive at 2.5-3 gal/sq or Pika Ply Adhesive applied at 1.5 gal/sq.
Membrane:	Pika Ply HI-TEC Granule, Pika Ply HI-TEC 80, Pika Ply Supreme FR Smooth, Pika Ply Supreme FR, Pika Ply Supreme FR (HR), Pika Ply SS-3P, Pika Ply SS-4, Pika Ply 350S, Pika Ply MS-3G, Pika Ply 250 GR, Pika Ply MS-4, Performance Ply MS FR, Premium Cap Sheet or Performance Ply SS, adhered in Multi-Ply Adhesive at 2.5-3 gal/sq or Pika Ply Adhesive applied at 1.5 gal/sq. with a minimum 4" wide headlap.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications Apply any coating system listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-45.0 psf; (See General Limitation #9.)

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank

System Type B(6): Base layer of insulation mechanically attached, top layer adhered with approved adhesive

Thermal Barrier: Minimum 0.5" thick DensDeck Prime placed on top of wood deck, with joints offset minimum 6" from deck joints.

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**
H-Shield		
Minimum 1.5" thick	19	1:2

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	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Structodek High Density Fiberboard		
Minimum 0.5" thick	N/A	N/A

Note: Top layer of insulation shall be adhered with Insta-Stik in 0.75-1" wide beads spaced maximum 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as the base layer shall only be used as the base layer with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: One or more plies of Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II, Arrowbase or Modified Arrowbase, adhered in Base Sheet Adhesive applied at 1.5 gal/sq.

Ply Sheet: One or more plies of Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II, Arrowbase or Modified Arrowbase, adhered in Multi-Ply Adhesive at 2.5-3 gal/sq or Pika Ply Adhesive applied at 1.5 gal/sq.

Membrane:	Pika Ply HI-TEC Granule, Pika Ply HI-TEC 80, Pika Ply Supreme FR Smooth, Pika Ply Supreme FR, Pika Ply Supreme FR (HR), Pika Ply SS-3P, Pika Ply SS-4, Pika Ply 350S, Pika Ply MS-3G, Pika Ply 250 GR, Pika Ply MS-4, Performance Ply MS FR, Premium Cap Sheet or Performance Ply SS, adhered in Multi-Ply Adhesive at 2.5-3 gal/sq or Pika Ply Adhesive applied at 1.5 gal/sq. with a minimum 4" wide headlap.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications Apply any coating system listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-45.0 psf; (See General Limitation #9.)

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank

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

Thermal Barrier: Minimum 0.5" thick DensDeck Prime placed on top of wood deck, with joints offset minimum 6" from deck joints.

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, H-Shield Minimum 1.5" thick	N/A	N/A

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Structodek High Density Wood Fiberboard, GAFTEMP High Density Fiberboard Minimum 0.5" thick	11, 23	1:3 ft^2
Roof Insulating Board, Structodek, Fiber Base HD1, Fiber Base HD6 Minimum 0.5" thick	11, 19, 23	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. 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 or more plies of Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, BUR Plus Polyester Ply, BUR Plust Polyester Ply 200, BUR Plus Polyester Ply 250, Pika Ply HI-TEC 80, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II or GAFGLAS #75, adhered in a full mopping of approved asphalt, BUR Plus 101, BUR Plus 102, BUR Plus 202, BUR Plus 202A or BUR Plus 303 applied within the EVT range and at a rate of 25 lbs./sq.

Ply Sheet: One or more plies of Pika Ply HI-TEC 80, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II, HK Glass Ply IV, Arrowglas IV, Premium Ply, Arrowglass VI, Performance Ply, BUR Plus Polyester Ply, BUR Plus Polyester Ply 200, BUR Plus Polyester Ply 250, Glasply IV, Glasply Premier, PermaPly #28, GAFGLAS Ply 4, GAFGLAS FlexPly 6, Multi-Ply Glass or Multi-Ply Glass CL, adhered in a full mopping of approved asphalt, BUR Plus 101, BUR Plus 102, BUR Plus 202, BUR Plus 202A or BUR Plus 303 applied within the EVT range and at a rate of 25 lbs./sq.

Membrane:	Pika Ply HI-TEC Granule, Pika Ply HI-TEC 80, Pika Ply HI-TEC 80 Plus, Pika Ply Supreme FR Smooth, Pika Ply Supreme FR, Pika Ply Supreme FR (HR), Performance Ply MS-FR, Pika Ply MS-4, adhered in a full mopping of approved asphalt, BUR Plus 101, BUR Plus 102, BUR Plus 202, BUR Plus 202A or BUR Plus 303 applied within the EVT range and at a rate of 25 lbs./sq. with a minimum 4" wide headlap. Or Pika Ply Supreme FR (TG), heat welded with a minimum 4" wide headlap.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications Apply any coating system listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-45.0 psf; (See General Limitation #9.)

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank

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

All General and System Limitations apply.

Thermal Barrier: Minimum 0.5" thick DensDeck Prime placed on top of wood deck, with joints offset minimum 6" from deck joints.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ACFoam II, Hy-Therm AP, H-Shield Minimum 1.5" thick	N/A	N/A

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Dens Deck, Dens Deck Prime Minimum 0.25" thick	11, 23	1:4 ft^2

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One or more plies of Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, BUR Plus Polyester Ply, BUR Plust Polyester Ply 200, BUR Plus Polyester Ply 250, Pika Ply HI-TEC 80, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II or GAFGLAS #75, adhered in a full mopping of approved asphalt, BUR Plus 101, BUR Plus 102, BUR Plus 202, BUR Plus 202A or BUR Plus 303 applied within the EVT range and at a rate of 25 lbs./sq.

Ply Sheet: One or more plies of Pika Ply HI-TEC 80, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II, HK Glass Ply IV, Arrowglas IV, Premium Ply, Arrowglass VI, Performance Ply, BUR Plus Polyester Ply, BUR Plus Polyester Ply 200, BUR Plus Polyester Ply 250, Glasply IV, Glasply Premier, PermaPly #28, GAFGLAS Ply 4, GAFGLAS FlexPly 6, Multi-Ply Glass or Multi-Ply Glass CL, adhered in a full mopping of approved asphalt, BUR Plus 101, BUR Plus 102, BUR Plus 202, BUR Plus 202A or BUR Plus 303 applied within the EVT range and at a rate of 25 lbs./sq.

Membrane:	Pika Ply HI-TEC Granule, Pika Ply HI-TEC 80, Pika Ply HI-TEC 80 Plus, Pika Ply Supreme FR Smooth, Pika Ply Supreme FR, Pika Ply Supreme FR (HR), Performance Ply MS FR, Pika Ply MS-4, adhered in a full mopping of approved asphalt, BUR Plus 101, BUR Plus 102, BUR Plus 202, BUR Plus 202A or BUR Plus 303 applied within the EVT range and at a rate of 25 lbs./sq. with a minimum 4" wide headlap. Or Pika Ply Supreme FR (TG), heat welded with a minimum 4" wide headlap.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications Apply any coating system listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-45.0 psf; (See General Limitation #9.)

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank

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

All General and System Limitations apply.

Thermal Barrier: Minimum 0.5" thick DensDeck Prime placed on top of wood deck, with joints offset minimum 6" from deck joints.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ACFoam II, H-Shield Minimum 1.5" thick	11, 19	1:4 ft^2
Hy-Therm AP Minimum 1.5" thick	11, 19	1:2.9 ft^2

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One or more plies of Multi-Ply Glass CL, Performance Ply, adhered in a full mopping of approved asphalt, BUR Plus 101, BUR Plus 102, BUR Plus 202, BUR Plus 202A or BUR Plus 303 applied within the EVT range and at a rate of 25 lbs./sq.

Membrane: Two to three plies of Multi-Ply Glass, Multi-Ply Glass CL, Pika Ply SS-2 or Performance Ply adhered with Multi-Ply Adhesive at 2.5-3.0 gal/sq.

Surfacing: Surfacing is Optional on granular surfaced field cap membranes.
Surfacing is Required for smooth or sanded surfaced field cap membranes.
Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications
Apply any coating system listed in Table 4 above, or any Miami-Dade approved coating system.

Maximum Design Pressure: -45.0 psf; (See General Limitation #9.)

Deck Type 1I: Wood, Insulated, New Construction

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank

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

All General and System Limitations apply.

Thermal Barrier: Minimum 5/8" thick DensDeck placed on top of wood deck, with joints offset minimum 6" from deck joints.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ACFoam II, H-Shield Minimum 1.5" thick	11, 19	1:2.6 ft^2
ACFoam II, H-Shield Minimum 2.0" thick	11, 19	1:4 ft^2

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One or more plies of Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II, Arrowbase or Modified Arrowbase, adhered in Base Sheet Adhesive applied at 1.5 gal/sq.

Ply Sheet: One or more plies of Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II, Arrowbase or Modified Arrowbase, adhered in Multi-Ply Adhesive at 2.5-3 gal/sq or Pika Ply Adhesive applied at 1.5 gal/sq.

Membrane: Pika Ply HI-TEC Granule, Pika Ply HI-TEC 80, Pika Ply Supreme FR Smooth, Pika Ply Supreme FR, Pika Ply Supreme FR (HR), Pika Ply SS-3P, Pika Ply SS-4, Pika Ply 350S, Pika Ply MS-3G, Pika Ply 250 GR, Pika Ply MS-4, Performance Ply MS FR, Premium Cap Sheet or Performance Ply SS, adhered in Multi-Ply Adhesive at 2.5-3 gal/sq or Pika Ply Adhesive applied at 1.5 gal/sq. with a minimum 4" wide headlap.

Surfacing: Surfacing is Optional on granular surfaced field cap membranes.
Surfacing is Required for smooth or sanded surfaced field cap membranes.
Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications
Apply any coating system listed in Table 4 above, or any Miami-Dade approved coating system.

Maximum Design Pressure: -45.0 psf; (See General Limitation #9.)

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank

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

All General and System Limitations apply.

Thermal Barrier: Minimum 0.5" thick DensDeck Prime placed on top of wood deck, with joints offset minimum 6" from deck joints.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam II, H-Shield Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Dens Deck Prime Minimum 0.5" thick	11, 19 (minimum #14)	1:1.6

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 or more plies of Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II, Arrowbase or Modified Arrowbase, adhered in Base Sheet Adhesive applied at 1.5 gal/sq.

Ply Sheet: One or more plies of Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II, Arrowbase or Modified Arrowbase, adhered in Multi-Ply Adhesive at 2.5-3 gal/sq or Pika Ply Adhesive applied at 1.5 gal/sq.

Membrane: Pika Ply HI-TEC Granule, Pika Ply HI-TEC 80, Pika Ply Supreme FR Smooth, Pika Ply Supreme FR, Pika Ply Supreme FR (HR), Pika Ply SS-3P, Pika Ply SS-4, Pika Ply 350S, Pika Ply MS-3G, Pika Ply 250 GR, Pika Ply MS-4, Performance Ply MS FR, Premium Cap Sheet or Performance Ply SS, adhered in Multi-Ply Adhesive at 2.5-3 gal/sq or Pika Ply Adhesive applied at 1.5 gal/sq. with a minimum 4" wide headlap.

Surfacing: Surfacing is Optional on granular surfaced field cap membranes.
Surfacing is Required for smooth or sanded surfaced field cap membranes.
Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications
Apply any coating system listed in Table 4 above, or any Miami-Dade approved coating system.

Maximum Design Pressure: -45.0 psf; (See General Limitation #9.)

Deck Type 1: Wood, Non-insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank decks

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

All General and System Limitations apply.

Base Sheet: One ply of Multi-Ply Glass CL or Multi-Ply Glass CL/W mechanically fastened to the deck as detailed below.

Fastening: Fasten base sheet with approved nails and tin caps at a 4" side lap 9" o.c. and two rows staggered in the center of the sheet 12" o.c

Ply Sheet: Two or more plies of Premium Ply, HK Glass Ply, BUR Plus Polyester Ply, Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply, Performance Ply W or an approved ASTM D 2178 ply sheet, in any combination, adhered to any of the base sheets noted above with approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or, two or more plys of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, HK Tarred Felt or HK Tarred Glass, in any combination, adhered to Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, or Multi-Ply Glass CL base sheets with BUR Plus 505 or HK Tar Plus at a rate of 20-40 lbs./sq.; or,
two or more plys of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply or Performance Ply W, in any combination, adhered to Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply or Weather Ply base sheets with Multi-Ply Adhesive at a rate of 2.5 to 3 gal./sq.

Surfacing: Surfacing is Optional on granular surfaced field cap membranes.
Surfacing is Required for smooth or sanded surfaced field cap membranes.
Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications
Apply any coating system listed in Table 4 above, or any Miami-Dade approved coating system.

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

WOOD DECK SYSTEM LIMITATIONS:

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

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each 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.)**

END OF THIS ACCEPTANCE