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)

W.P. Hickman Systems, Inc.
30700 Solon Industrial Parkway
Solon, OH 44139

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: W.P. Hickman Conventional Built-Up-Roof Systems Over Lightweight 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 renews and revises NOA No. 05-0921.22 and consists of pages 1 through 23.
The submitted documentation was reviewed by Jorge L. Acebo

MIAMI-DADE COUNTY APPROVED

ROOFING ASSEMBLY APPROVAL

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

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
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 1227 Type I	Asphalt based, asbestos free non-fibered aluminum coating.
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	100 lb. kegs	ASTM D 312	Approved, Type III asphalt.
BUR Plus™ 102	100 lb. kegs	ASTM D 312	Approved, Type III asphalt.
BUR Plus™ 202	40 lb. boxes	ASTM D 412	Approved polymer modified asphalt.
BUR Plus™ 202A	42 lb. boxes	ASTM D 412	Approved polymer modified asphalt.
BUR Plus™ 303	40 lb. boxes	ASTM D 412	Approved modified SEBS asphalt.
BUR Plus™ 505	50 lb. boxes	ASTM D 450	Approved, modified coal tar pitch adhesive.
BUR Plus™ 606	42 lb. boxes	Proprietary	Approved polymer modified asphalt.
HK Tar Plus	200 lb. kegs	ASTM D 450	Approved coal tar pitch.
Multi-Ply Adhesive	5, 55 gallon	Proprietary	Asphalt based, asbestos free SEBS adhesive.
Pika Ply Adhesive	5, 55 gallon	Proprietary	Asphalt based, asbestos free SBS adhesive.
Hickman Base Sheet Adhesive	5, 55 gallon	Proprietary	Asphalt/Urethane moisture-cure adhesive.
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';	ASTM D 4601	Tri-laminated polyester/glass/polyester mat coated with asphalt.
Multi-Ply Glass	36" x 108'	ASTM D 4601	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.
Performance Ply	39.5" x 72'	Proprietary	Polyester reinforced asphalt saturated ply 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.
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.

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
Hubert Fiberboard	Wood fiber board	Huebert Fiberboard, Inc.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ENRGY-1, ENRGY-2, Plus, UltraGard Gold, PSI-25	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.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	FM-30, FM-45, FM-60, FM-90 Fasteners	Base ply fastening systems for lightweight concrete decks.		ES Products, Inc.
2.	Olympic CR Base Felt Fastener	Fastener assembly for Base Sheet fastening only		OMG, Inc.
3.	Base-Lok Fastener	Nylon base sheet fastener.		Simplex Nails & Fasteners

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 Hickman 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 Hickman Weatherizer KV at an application rate of 3 gal/sq, followed by one coat of Hickman White Roof Coating Base Coat at an application rate of 1 gal/sq. and one coat of Hickman White Roof Coating at an application rate of 1 gal/sq.
11.	One coat of Hickman White Roof Coating Base Coat at an application rate of 1.5 gal/sq. and one coat of Hickman White Roof Coating at an application rate of 1.5 gal/sq.
12.	One coat of Hickman 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
	FMRC 4470	J.I. 0W7A4.AM	02/09/93
	FMRC 4470	J.I. 0X2A0.AM	03/30/93
	FMRC 4470	J.I. 0P3A6.AM	01/15/88
	FMRC 4470	J.I. 1R4A2.AM	03/14/90
	FMRC 4470	J.I. 1R6A2.AM	04/21/91
	FMRC 4470	J.I. 1T7A2.AM	02/28/92
	FMRC 4470	J.I. 1T7A1.AM	01/10/92
	FMRC 4470	J.I. 0X0A9.AM	03/25/94
	FMRC 4470	J.I. 0W6A2.AM	02/05/93
	FMRC 4470	J.I. 0X7A4.AM	08/26/93
	FMRC 4470	J.I. 3Y4A1.AM	09/20/95
	FMRC 4470	J.I. 4D9A5.AM	01/15/99
	FMRC 4470	J.I. 1D7A4.AM	11/09/98
	FM 4470	3017068	03/24/05
	FM 4470	3020937	06/22/05
	FM 4470	3026965	02/02/07
Warnock Hersey	ASTM E 108	495-R-0344	01/01/90
	ASTM E 108	495-R-0400	01/01/90
	ASTM E 108	495-R-0430	01/01/90
	ASTM E 108	495-R-0447	01/01/90
	ASTM E 108	495-R-0526	01/01/90
	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 4I: Lightweight Insulated Concrete, Insulated

Deck Description: Cellular Lightweight Concrete

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

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners	Fastener Density/ft^2
AC-Foam II, ENRGY 2, ENRGY 2 Plus, ISORoc, Multi-Max		
Minimum 1" thick	N/A	N/A

Base or Top Insulation Layer	Insulation Fasteners	Fastener Density/ft^2
BP High Strength, FM-90 Traffic Top/High Density, 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, Multi-Ply Glass CL, or Performance Ply fastened to the deck as described below.

Fastening #1: Fasten anchor sheet with ES Products FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners spaced 7" o.c. at a 4" side lap and 7" o.c. in two staggered rows in the center of the sheet.

(Maximum Design Pressure –52.5 psf, See General Limitation #7.)

Fastening #2: Fasten anchor sheet (excluding Multi-Ply Glass) with Olympic CR, or ES Products FM-90 Base Felt Fasteners spaced 7" o.c. at a 3" side lap and 7" o.c. in two staggered rows in the center of the sheet.

(Maximum Design Pressure –82.5 psf, See General Limitation #7.)

Fastening #3: Fasten anchor sheet (excluding Multi-Ply Glass) with Simplex Base-Lok Fasteners or SFS Stadler Base-Lok Fasteners spaced 10" o.c. at a 4" side lap and 10" o.c. in two staggered rows in the center of the sheet.

(Maximum Design Pressure s –45 psf, See General Limitation #7.)

Base Sheet:	(Optional) One ply of Premium Ply, HK Glass Ply, Multi-Ply Glass, Multi-Ply Glass CL, , Performance Plyor 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, 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, Multi-Ply Glass, Multi-Ply Glass CL 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 PlyMulti-Ply Glass, Multi-Ply Glass CLPerformance Ply, 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 Multi-Ply Glass, Multi-Ply Glass CL, HK Tarred Felt or HK Tarred Glass, in any combination, adhered to Performance Ply, 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 Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, in any combination, adhered to Multi-Ply Glass, Multi-Ply Glass CL, Performance 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:	See fastening requirements above

Deck Type 4I:	Lightweight Insulated Concrete, Insulated
Deck Description:	Cellular Lightweight Concrete
System Type A(2):	One or more layers of insulation adhered with approved asphalt.
LWC System #1:	Min. 0.029" thick 1.5" deep corrugated galvanized steel secured to structual supports spaced 6' o.c., with ITW Buildex ICH Traxx/5 screws in each bottom rib, 6" o.c. Celcore Cellular Concrete or Celcore MF lightweight concrete cast to a minimum 36 lb/ft³ wet density, min. 2" thick above min. 1" thick Holey board. Surface is coated with Celcore PVA Curing Compound applied at 0.33 gal/sq.
LWC System #2:	Min. 26 ga. Type HF galvanized steel, secured to supports spaced 5' o.c. using minimum 0.5" diameter puddle welds and washers placed at every corrugation (7.5" o.c.). or Min. 22 ga. Type B galvanized steel, secured to supports spaced 6' o.c. using 0.5" diameter puddle welds at every corrugation (6" o.c.) Celcore MF lightweight concrete cast to a minimum 36 lb/ft³ wet density ,min. 2" thick above min. 1" thick Holey board. Surface is coated with Celcore PVA Curing Compound applied at 0.33 gal/sq.
LWC System #3:	Min. 22 ga. Type BV vented galvanized steel, secured to supports spaced 5' o.c. with 3/8" welding washers, 6" o.c. in every corrugation. Mearlcrete or Lite-Crete Plus cast to a minimum 40 lb/ft³ wet density, a min. of 2" above optional 1-12" thick Dyplast Holey board or Mearl Corrugated EPS.
LWC System #4:	Min. 22 ga. Type BW, vented galvanized steel, secured to supports spaced 5' o.c. with 5/8" puddle welds 6" o.c. at every corrugation. Range II Elastizell Lightweight Insulating Concrete is cast a min. of 2" above a min. 2" – max 12" thick Dyplast Holey Board, Starfoam R-Foam Gripper-HB or Star-R-Foam Smooth insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	**Insulation Fasteners**	**Fastener Density/ft²**
AC-Foam II, H-Shield Minimum 1.5" thick	N/A	N/A

Top Insulation Layer	**Insulation Fasteners**	**Fastener Density/ft²**
(Optional) AC-Foam II, H-Shield Minimum 1.5" thick	N/A	N/A
(Optional) DensDeck Prime Minimum ¼" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft² or with Olybond 500 applied in 0.75-1" wide beads spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet:	One layer 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 Hickman Base Sheet Adhesive at a rate of 1.5 gal/sq.
Ply Sheet:	One to three 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 a rate of 2.5-3 gal/sq. or Pika Ply Adhesive at a rate of 1.5 gal/sq.
Membrane:	(Optional, required if system has less then three sheet layers) One ply or 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 a rate of 2.5-3 gal/sq. or Pika Ply Adhesive at a rate of 1.5 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 #7)

Deck Type 4I:	Lightweight Insulated Concrete, Insulated
Deck Description:	Cellular Lightweight Concrete
System Type A(3):	One or more layers of insulation adhered with approved asphalt.
Structural Deck:	Min. 2,500 psi structural concrete
	(Optional) Approved asphaltic vapor barrier or existing BUR roof system.
LWC System #1:	Celcore Cellular Concrete or Celcore MF lightweight concrete cast to a minimum 36 lb/ft³ wet density, min. 2" thick above min. 1" thick Holey board. Surface is coated with Celcore PVA Curing Compound applied at 0.33 gal/sq.
	Or
	Min. 2" thick Celcore Cellular Concrete or Celcore MF lightweight concrete cast to a minimum 36 lb/ft³ wet density. Surface is coated with Celcore PVA Curing Compound applied at 0.33 gal/sq.
LWC System #2:	Mearlcrete or Lite-Crete Plus cast to a minimum 35 lb/ft³ wet density, a min. of 2" above one layer of min. 1" thick Dyplast Holey board or Mearl Corrugated EPS.
LWC System #3:	Range II Elastizell Lightweight Insulating Concrete is cast a min. of 2" above a min. 2" – max 12" thick Dyplast Holey Board, Starfoam R-Foam Gripper-HB or Star-R-Foam Smooth insulation.
	Or
	Min. 3" thick Range II Elastizell Lightweight Insulating Concrete.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	**Insulation Fasteners**	**Fastener Density/ft²**
AC-Foam II, H-Shield Minimum 1.5" thick	N/A	N/A

Top Insulation Layer	**Insulation Fasteners**	**Fastener Density/ft²**
(Optional) AC-Foam II, H-Shield Minimum 1.5" thick	N/A	N/A
(Optional) DensDeck Prime Minimum ¼" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft² or with Olybond 500 applied in 0.75-1" wide beads spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet:	One layer 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 Hickman Base Sheet Adhesive at a rate of 1.5 gal/sq.
Ply Sheet:	One to three 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 a rate of 2.5-3 gal/sq. or Pika Ply Adhesive at a rate of 1.5 gal/sq.
Membrane:	(Optional, required if system has less then three sheet layers) One ply or 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 a rate of 2.5-3 gal/sq. or Pika Ply Adhesive at a rate of 1.5 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 #7)

Deck Type 4:	Lightweight Insulated Concrete, Non-Insulated
Deck Description:	Cellular Lightweight Concrete
System Type E(1):	Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet:	One ply of Multi-Ply Glass, Multi-Ply Glass CL, or Performance Ply fastened to the deck as described below.
Fastening #1:	Fasten base sheet with ES Products FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners spaced 7" o.c. at a 4" side lap and 7" o.c. in two staggered rows in the center of the sheet. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7.)***
Fastening #2:	Fasten base sheet (excluding Multi-Ply Glass) with Olympic CR Base Felt Fasteners, or ES Products FM-90 fasteners spaced 7" o.c. at a 3" side lap and 7" o.c. in two staggered rows in the center of the sheet. ***(Maximum Design Pressure –82.5 psf, See General Limitation #7.)***
Fastening #3:	Fasten base sheet (excluding Multi-Ply Glass) with Simplex Base-Lok Fasteners or SFS Stadler Base-Lok Fasteners spaced 10" o.c. at a 4" side lap and 10" o.c. in two staggered rows in the center of the sheet. ***(Maximum Design Pressure –45 psf, See General Limitation #7.)***
Base Sheet:	(Optional) One ply of Premium Ply, HK Glass Ply, Multi-Ply Glass, Multi-Ply Glass CL, Performance 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, 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, Multi-Ply Glass, Multi-Ply Glass CL 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, Multi-Ply Glass, Multi-Ply Glass CL, Performance Plyor 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 Multi-Ply Glass, Multi-Ply Glass CL, HK Tarred Felt or HK Tarred Glass, in any combination, adhered to Performance Ply, 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 Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, in any combination, adhered to Multi-Ply Glass, Multi-Ply Glass CL, Performance 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:	See fastening requirements above

Deck Type 4:	Lightweight Insulated Concrete, Non-Insulated
Deck Description:	Celcore Cellular Lightweight Concrete
System Type E(2):	Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet:	One ply of Multi-Ply Glass, Multi-Ply Glass CL or Performance Ply fastened to the deck as described. Fasten base sheet with Simplex Turbo Tube-Lok Fasteners spaced 9" o.c. in min. 4" wide lap and 12" o.c. in two equally spaced staggered rows in the field.
Base Ply:	(Optional) One layer of Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, BUR Plus Polyester Ply, BUR Plus Plyester Ply 200, BUR Plus Polyester Ply 250, Pika Ply HI-TEC 80, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II, 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:	(Optional, required if no base sheet used) 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, Arrowglas VI, Performance Ply, BUR Plus Polyester Ply, BUR Plus Polyester Ply 200, BUR Plus Polyester Ply 250, 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:	(Optional, Required if less then three plies of previous membranes used) One ply or Pika Ply HI-TEC Granule, Pika Ply HI-TEC 80, Pika Ply Supreme FR Smooth, Pika Ply Supreme FR or Pika Ply Supreme FR (HR), 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. Or One ply of Pika Ply Supreme FR (TG), heat welded.
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 #7)

Deck Type 4: Lightweight Insulated Concrete, Non-Insulated

Deck Description: Range II Elastizell Lightweight Concrete

System Type E(3): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of Multi-Ply Glass fastened to the deck as described. Fasten base sheet with ES Products FM 90 Base Ply Fasteners or SFS FM-90 Dekfast/ES Base Ply Fasteners spaced 7" o.c. in min 4" wide lap and 7" o.c. in two equally spaced staggered rows in the field.

Base Ply: (Optional)
One layer of Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, BUR Plus Polyester Ply, BUR Plus Plyester Ply 200, BUR Plus Polyester Ply 250, Pika Ply HI-TEC 80, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II, 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: (Optional, required if no base sheet used)
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, Arrowglas VI, Performance Ply, BUR Plus Polyester Ply, BUR Plus Polyester Ply 200, BUR Plus Polyester Ply 250, 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: (Optional, Required if less then three plies of previous membranes used)
One ply or Pika Ply HI-TEC Granule, Pika Ply HI-TEC 80, Pika Ply Supreme FR Smooth, Pika Ply Supreme FR or Pika Ply Supreme FR (HR), 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.
Or
One ply of Pika Ply Supreme FR (TG), heat welded.

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 #7)

Deck Type 4:	Lightweight Insulated Concrete, Non-Insulated
Deck Description:	Celcore Cellular Lightweight Concrete (min. Celcore -45 psf deck construction) (Min. 36 lb/ft^3 wet density)
System Type E(4):	Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet:	One ply of Multi-Ply Glass or Performance Ply fastened to the deck as described. Fasten base sheet with Olympic CR Base Felt Fasteners and discs spaced 7" o.c. in min. 3" wide lap and 7" o.c. in two equally spaced staggered rows in the field.
Base Ply:	(Optional) One layer of Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, BUR Plus Polyester Ply, BUR Plus Plyester Ply 200, BUR Plus Polyester Ply 250, Pika Ply HI-TEC 80, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II, 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:	(Optional, required if no base sheet used) 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, Arrowglas VI, Performance Ply, BUR Plus Polyester Ply, BUR Plus Polyester Ply 200, BUR Plus Polyester Ply 250, 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:	(Optional, Required if less then three plies of previous membranes used) One ply or Pika Ply HI-TEC Granule, Pika Ply HI-TEC 80, Pika Ply Supreme FR Smooth, Pika Ply Supreme FR or Pika Ply Supreme FR (HR), 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. Or One ply of Pika Ply Supreme FR (TG), heat welded.
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 #7)

Deck Type 4:	Lightweight Insulated Concrete, Non-Insulated
Deck Description:	Celcore Cellular Lightweight Concrete (min. Celcore -75 psf deck construction) (Min. 42 lb/ft^3 wet density)
System Type E(5):	Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet:	One ply of Multi-Ply Glass or Performance Ply fastened to the deck as described. Fasten base sheet with Olympic CR Base Felt Fasteners and discs spaced 7" o.c. in min. 3" wide lap and 7" o.c. in two equally spaced staggered rows in the field
Base Ply:	(Optional) One layer of Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, BUR Plus Polyester Ply, BUR Plus Plyester Ply 200, BUR Plus Polyester Ply 250, Pika Ply HI-TEC 80, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II, 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:	(Optional, required if no base sheet used) 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, Arrowglas VI, Performance Ply, BUR Plus Polyester Ply, BUR Plus Polyester Ply 200, BUR Plus Polyester Ply 250, 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:	(Optional, Required if less then three plies of previous membranes used) One ply or Pika Ply HI-TEC Granule, Pika Ply HI-TEC 80, Pika Ply Supreme FR Smooth, Pika Ply Supreme FR or Pika Ply Supreme FR (HR), 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. Or One ply of Pika Ply Supreme FR (TG), heat welded.
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:	-75.0 psf, (See General Limitation #7)

Deck Type 4:	Lightweight Insulated Concrete, Non-Insulated
Deck Description:	Celcore MF Cellular Concrete (min. Celcore -45 psf deck construction) (Min. 36 lb/ft³ wet density)
System Type E(6):	Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet:	One ply of Multi-Ply Glass or Performance Ply fastened to the deck as described below.
Fastening #1:	Fasten base sheet with Olympic CR Base Felt Fasteners and discs spaced 9" o.c. in min. 3" wide lap and 9" o.c. in two equally spaced staggered rows in the field. **(Min. 36 lb/ft³ wet density)**
Fastening #2:	Fasten base sheet with Olympic CR Base Felt Fasteners and discs spaced 7" o.c. in min. 3" wide lap and 14" o.c. in two equally spaced staggered rows in the field. **(Min. 40 lb/ft³ wet density)**
Base Ply:	(Optional) One layer of Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, BUR Plus Polyester Ply, BUR Plus Plyester Ply 200, BUR Plus Polyester Ply 250, Pika Ply HI-TEC 80, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II, 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:	(Optional, required if no base sheet used) 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, Arrowglas VI, Performance Ply, BUR Plus Polyester Ply, BUR Plus Polyester Ply 200, BUR Plus Polyester Ply 250, 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:	(Optional, Required if less then three plies of previous membranes used) One ply or Pika Ply HI-TEC Granule, Pika Ply HI-TEC 80, Pika Ply Supreme FR Smooth, Pika Ply Supreme FR or Pika Ply Supreme FR (HR), 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. Or One ply of Pika Ply Supreme FR (TG), heat welded.
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 #7)

Deck Type 4:	Lightweight Insulated Concrete, Non-Insulated
Deck Description:	Mearlcrete Lightweight Concrete (min. Mearlcrete -52.5 psf deck construction) (Min. 40 lb/ft³ wet density)
System Type E(7):	Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet:	One ply of Multi-Ply Glass or Performance Ply fastened to the deck as described. Fasten base sheet with Olympic CR Base Felt Fasteners and discs spaced 7" o.c. in min. 4" wide lap and 7" o.c. in two equally spaced staggered rows in the field
Base Ply:	(Optional) One layer of Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, BUR Plus Polyester Ply, BUR Plus Plyester Ply 200, BUR Plus Polyester Ply 250, Pika Ply HI-TEC 80, Pika Ply HI-TEC 60, Pika Ply HI-TEC 60 Type II, 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:	(Optional, required if no base sheet used) 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, Arrowglas VI, Performance Ply, BUR Plus Polyester Ply, BUR Plus Polyester Ply 200, BUR Plus Polyester Ply 250, 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:	(Optional, Required if less then three plies of previous membranes used) One ply or Pika Ply HI-TEC Granule, Pika Ply HI-TEC 80, Pika Ply Supreme FR Smooth, Pika Ply Supreme FR or Pika Ply Supreme FR (HR), 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. Or One ply of Pika Ply Supreme FR (TG), heat welded.
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:	52.5 psf, (See General Limitation #7)

Deck Type 4:	Lightweight Insulated Concrete, Non-Insulated
Deck Description:	Concrecel Lightweight Concrete (min. Mearlcrete -82.5 psf deck construction)
System Type E(8):	Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet:	One ply of Performance Ply fastened to the deck as described. Fasten base sheet with ES Products FM-90 Base Ply Fasteners or OMG 1.7" CR Assembled Base Sheet Fasteners, spaced 7" o.c. in min. 3" wide lap and 7" o.c. in two equally spaced staggered rows in the field.
Ply Sheet:	Minimum two 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, Arrowglas VI, Performance Ply, BUR Plus Polyester Ply, BUR Plus Polyester Ply 200, BUR Plus Polyester Ply 250, 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. Or Minimum two plies of glass felt, 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:	(Optional, required if two plies of glass felt are used) One ply or Pika Ply HI-TEC Granule, Pika Ply HI-TEC 80, Pika Ply Supreme FR Smooth, Pika Ply Supreme FR or Pika Ply Supreme FR (HR), 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.
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 4:	Lightweight Insulated Concrete, Non-Insulated
Deck Description:	Cellular Lightweight Concrete
System Type E(9):	Base sheet mechanically fastened
Structural Deck:	18-22 ga. Galvanized Steel, secured to supports spaced maximum 72" o.c. with 2 Traxx 5 fasteners and 0.75" washers spaced 6" o.c.
LWC System:	Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture added at a rate of 3.4 fl oz (100 ml) per 100 lb (45 kg) of cement cast to a minimum 38 lb/ft^3 wet density, min. 2" thick above min. 1" thick Holey board. Surface is coated with Celcore PVA Curing Compound applied at a rate of 0.33 gal/sq.
Base Sheet:	Performance Ply, mechanically attached with Tru-Fast BB-18 Batten Bars and Tru-Fast EHD fasteners spaced maximum 12" o.c. in the minimum 3.5" wide lap, and center of the membrane. The batten bar ends are lapped minimum 6".
Ply Sheet:	One to three 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, Arrowglas VI, Performance Ply, BUR Plus Polyester Ply, BUR Plus Polyester Ply 200, BUR Plus Polyester Ply 250, 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, or BUR Plus 303 applied within the EVT range and at a rate of 25 lbs./sq.
Membrane:	(Optional, Required if less then three plies of previous membranes used) One ply or Pika Ply HI-TEC Granule, Pika Ply HI-TEC 80, adhered in a full mopping of approved asphalt, BUR Plus 101, BUR Plus 102, BUR Plus 202, or BUR Plus 303 applied within the EVT range and at a rate of 25 lbs./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:	-120.0 psf (See General Limitation #7)

LIGHTWEIGHT INSULATING CONCRETE 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 equivalent or enhanced 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 Engineer, Architect, or Registered Roof Consultant.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.
3. For systems where specific lightweight insulating concrete is not referenced, the minimum design mix shall be a minimum of 300 psi.

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