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

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
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NOTICE OF ACCEPTANCE (NOA)

Performance Roof Systems, Inc. dba SOPREMA Group Company
4800 Dr. Martin Luther King Jr. Blvd.
Kansas City, MO. 64130

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.
This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Performance Modified Roof Systems over Lightweight Insulating 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# 20-0127.09 and consists of pages 1 through 29.
The submitted documentation was reviewed by Alex Tigera.

ROOFING ASSEMBLY APPROVAL

Category:	Roofing
Sub-Category:	APP Modified Bitumen
Deck Type:	Lightweight Insulating Concrete
Maximum Design Pressure	**-135 psf**
Fire Classification:	See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

TABLE 1

Product	Dimensions	Test Specification	Product Description
Derbigum GP	33'4" x 39.4"; roll weight: 90 lbs.	ASTM D 6223	Modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbigum XPS	33'4" x 39.4"; roll weight: 90 lbs.	ASTM D 6223	Modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbicolor GP	33'4" x 39.4"; roll weight: 100 lbs.	ASTM D 6223	Mineral surfaced modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbicolor XPS	33'4" x 39.4"; roll weight: 100 lbs.	ASTM D 6223	Mineral surfaced modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbigum GP-FR	33'4" x 39.4"; roll weight: 90 lbs.	ASTM D 6223	Fire resistant modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbigum XPS-FR	33'4" x 39.4"; roll weight: 90 lbs.	ASTM D 6223	Fire resistant modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbicolor GP-FR	33'4" x 39.4"; roll weight: 100 lbs.	ASTM D 6223	Mineral surfaced fire-resistant modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbicolor XPS-FR	33'4" x 39.4"; roll weight: 100 lbs.	ASTM D 6223	Mineral surfaced fire-resistant modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

TABLE 1

Product	Dimensions	Test Specification	Product Description
Derbicolor P-FR	33’4” x 39.4”; roll Weight: 100 lbs.	ASTM D 6222	Mineral surfaced fire-resistant modified bitumen polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbibrite	33'4" x 39.4"; roll weight: 90 lbs.	ASTM D 6223	Fire resistant modified bitumen fiberglass and polyester composite mat with an acrylic top coating membrane for torch application or Permastic cold adhesive application.
Derbibase SA	39” x 49’ (1.5 sq.)	ASTM D 6163	Self-adhered, sanded surfaced, fiberglass reinforced membranes.
Derbibase HV	49’6” x 39.4”; roll Weight: 90 lbs	ASTM D 5147	APP modified bitumen membrane reinforced with polyester mat.
Derbicolor P	39.4" x 33'; roll weight: 103 lbs.	ASTM D 6222	Mineral surfaced APP polymer modified bitumen, polyester reinforced membrane
Derbigum P	33’ x 39.4 roll weight: 89 lbs	ASTM D 6222	APP polymer modified bitumen polyester reinforced membrane.
Derbibase	66' x 39.4"; roll weight: 90 lbs.	ASTM D 5147	APP modified bitumen glass fiber base sheet for mechanical attachment or Permastic cold adhesive application.
Derbibase Ultra	49.5’ x 39.4”; roll weight: 102 lbs.	ASTM D5147	APP modified bitumen glass fiber base sheet for mechanical attachment of Permastic cold adhesive application.
PRS Glass Base	108' x 36"; roll weight: 82 lbs.	ASTM D 4601	Asphalt coated fiberglass base sheet for use in hot-mop, mechanically fastened or Permastic cold adhesive application.
PRS Glass Ply IV	180' x 36"; roll weight: 60 lbs.	ASTM D 2178 Type IV	Asphalt coated fiberglass ply sheet for use in hot-mop, or mechanically fastened or Permastic cold adhesive application.
PRS Glass Ply VI	180' x 36"; roll weight: 60 lbs.	ASTM D 2178 Type IV	Asphalt coated fiberglass ply sheet for use in hot-mop or mechanically fastened or Permastic cold adhesive application.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

TABLE 1

Product	Dimensions	Test Specification	Product Description
PRS Modified Base	180’ x 36” roll weight: 82 lbs.	ASTM D 5147	SBS polymer modified bitumen base sheet.
Bitutak MB	33’ x 39.4 roll weight: 89 lbs	ASTM D 6222	APP polymer modified bitumen polyester reinforced membrane.
Resisto Bitutak MB Smooth	33’ x 39.4 roll weight: 89 lbs	ASTM D 6222	APP polymer modified bitumen polyester reinforced membrane.
Bitutak MB Mineral	39.4" x 33' roll weight: 103 lbs.	ASTM D 6222	Mineral surfaced APP polymer modified bitumen, polyester reinforced membrane
Resisto Bitutak MB Mineral	39.4" x 33' roll weight: 103 lbs.	ASTM D 6222	Mineral surfaced APP polymer modified bitumen, polyester reinforced membrane
Bitutak Cold	33’ x 39.4”; roll weight: 89 lbs.	ASTM D 6222	APP polymer modified bitumen polyester reinforced membrane.
Bitutak Cold Mineral	39.4" x 33'; roll weight: 103 lbs.	ASTM D 6222	Mineral surfaced APP polymer modified bitumen, polyester reinforced membrane.
Permastic	5-gallon pails 55-gallon drums 350-gallon tanks		Asphalt-based adhesive formulated especially for adhering Derbigum and Derbicolor roofing membranes, Derbibase and Derbibase Ultra, glass ply sheets and glass base sheets.

APPROVED INSULATIONS:

TABLE 2

Product	Dimensions	Test Specification	Product Description	Manufacturer
ACFoam-II	various	TAS 110	Polyisocyanurate foam insulation	Atlas Roofing Corp.
ACFoam-III	various	TAS 110	Polyisocyanurate foam insulation	Atlas Roofing Corp.
DensDeck, DensDeck Prime			Water resistant gypsum board	Georgia-Pacific Gypsum LLC
Derbiboard	various	TAS 110	Polyisocyanurate foam insulation	Derbigum Americas, Inc.
Derbiboard CA	various	TAS 110	Polyisocyanurate foam insulation	Derbigum Americas, Inc.
ENRGY 3	various	TAS 110	Polyisocyanurate foam insulation	Johns Manville Corp.
ISO 95+ GL	various	TAS 110	Polyisocyanurate/Perlite rigid insulation	Firestone Building Products Company, LLC
Retro-Fit Board	Various	TAS 110	Perlite cover board	Johns Manville Corp.
SECUROCK Gypsum-Fiber Roof Board	various	TAS 110	Water resistant gypsum board	USG Corporation
Structodek High Density Fiberboard Roof Insulation	various	TAS 110	Wood fiber insulation board	Blue Ridge Fiberboard, Inc.
SOPRABOARD	various	TAS 100	Mineral fortified asphaltic cored coverboard	SOPREMA, Inc.

APPROVED FASTENERS/ADHESIVES:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Trufast FM-75 Base Sheet Fastener, Trufast FM-90 Base Sheet Fastener and Trufast Twin Loc-Nail Assembled Fastener	Base ply fastening systems for lightweight concrete decks.	Various	Altenloh, Brinck & Co. U.S., Inc.
2.	CR Base Sheet Fastener (1.7")	Base sheet fastening assembly	Various	OMG, Inc.
3.	#12 Standard Roofgrip & OMG #14 Heavy Duty Roofing Fastener	Base sheet fastening assembly	Various	OMG, Inc.
4.	Trufast #15 EHD Fastener	Insulation fastener	#15	Altenloh, Brinck & Co. U.S., Inc.
5.	Trufast 3" Metal Insulation Plate	Insulation plate	3" round	Altenloh, Brinck & Co. U.S., Inc.
6.	Perlok XHD	Insulation fastener	Various	Derbigum Americas, Inc.
7.	Perlok-O 3" Ribbed Plate	3" stress plate with ribs	3" round	Derbigum Americas, Inc.
8.	Perlok-O #12 screw	Base sheet fastening assembly	Various	Derbigum Americas, Inc.
9.	DUOTACK	Two-part elastomeric urethane foam adhesive	5, 50 gallon pail	SOPREMA, Inc.
10.	DUOTACK 365	Two-part elastomeric urethane foam adhesive	5, 50 gallon pail	SOPREMA, Inc.

APPROVED SURFACING/COATING OPTIONS:

TABLE 4

Chosen components must be applied according to manufacturer's application instructions. Any coating, listed below, used as a surfacing, must be listed within a current NOA.

System Number	Manufacturer	Application
1.	Generic	Gravel or slag applied at an application rate of 400 lbs. or 300 lbs., respectively; adhered to the substrate with approved mopping asphalt at an application rate of 60 lbs./sq. ± 15% or Permastic adhesive at an application rate of 1.5 to 2 gal./sq.
2.	Gardner Asphalt Corp.	APOC #302 Fibered Emulsion Roof Coating applied at an application rate of 3 gal./sq.
3.	Gardner Asphalt Corp.	APOC #400 Sunbrite Aluminum Emulsion Roof Coating applied at an application rate of 1.3 gal./sq.
4.	Karnak Corp.	Karnak #97 AF applied at an application rate of 1.5 gal./sq.

EVIDENCE SUBMITTED

Test Agency	Test Identifier	Description	Date
Exterior Research & Design, LLC	10720.10.97-1	TAS 114	10/17/97
Factory Mutual Research Corporation	2W3A6.AM	FM 4470	02/21/97
	2Y3A2.AM		
	2B5A5.AM	FM 4470	05/14/97
	1D7A4.AM	FM 4470	11/9/98
	2B5A7.AM	FM 4470	03/1/99
	3007274	FM 4470	02/07/01
	3003642		
	3001472		
	3017037	FM 4470	09/30/05
	ID 01669-267	Product Name Change	10/14/05
	ID 1039-267	Product Name Change	07/08/04
	3024750	FM 4470	06/21/06
	3027878	FM 4470	01/22/07
	3039338	FM 4470	08/18/10
	3046765	FM 4470	02/15/13
	3049890	FM 4470	06/20/14
	3051281	FM 4470	11/14/14
	3059403	FM 4470	06/15/16
	3059931	FM 4470	12/19/16
PRI Construction Materials Technologies	PRS-067-02-01	ASTM D 1876	05/05/17
	PRS-057-02-01	ASTM D 6222	01/24/19
	PRS-066-02-01	ASTM D 6222	01/24/19
	691T0016	ASTM D 6509	09/16/21
	691T0017	ASTM D 6509	09/15/21
	691T0018	ASTM D 6222	10/01/21
	691T0019	ASTM D 6223	11/30/21
	691T0020	ASTM D 6223	10/01/21
	691T0025	ASTM D 6223	04/26/22
	691T0026	ASTM D 6223	04/27/22
	691T0028	ASTM D 6222	04/22/22
Underwriters Laboratories, Inc.	TGFU.R13327	Fire Classification Compliance	08/08/19
Trinity ERD	S45010.02.14	ASTM D 6506	02/07/14

DECK STRESS ANALYSIS CALCULATIONS/REPORTS

Engineer/Agency	Identifier	Assemblies:	Date
Zach Priest	Letter	A(1), A(2), A(4), E(1), E(2), E(3), E(6), E(7), E(8)	09/03/15
	Letter	A(5), A(6)	09/03/15
	Letter	D(1), D(2), D(3)	09/03/15
	Letter	E(4), E(5)	09/03/15

APPROVED ASSEMBLIES

Membrane Type: APP

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Concrecel Cellular Lightweight Concrete

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

Deck: 18-22 ga, 33ksi. steel deck shall be secured to structural supports spaced a maximum of 5 ft o.c. with 5/8" puddle welds and washer placed at 6" o.c. Deck side laps are fastened 12 in. o.c. with Traxx/1 fasteners. Followed by Concrecel Bonding agent applied to the deck at rate 1200 sq. ft/gal using a compressed air sprayer. Rigid insulation panels shall be placed in a minimum ¼" slurry-coat of insulating concrete and allowed to cure overnight. The following day the rigid insulation shall be covered with a minimum 2¼" topcoat cast of Concrecel. After an additional cure time of 24 hours Concrecel Curing Compound was roller applied at a rate of 300 sq. ft/gal.

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

All General and System limitations apply.

Anchor Sheet: One ply of PRS Glass Base, Derbibase, Derbibase Ultra or Derbigum GP fastened to the deck as described below.

Fastening: Fasten anchor sheet to deck with Trufast FM-90 Base Sheet Fasteners or CR Base Sheet Fasteners (1.7") at a 4" side lap 7" o.c. and 7" o.c. in two evenly spaced rows in the center of the sheet.

Base or Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Approved Type(s): **Any Approved Insulations in Table 2**	**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., full application of Permastic adhesive at a rate of 1.5-2 gal/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations 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.

Membrane: One ply of Bitutak MB, Resisto Bitutak MB Smooth, Bitutak MB Mineral, Resisto Bitutak MB Mineral, Bitutak Cold, Bitutak Cold Mineral, Derbigum P, Derbicolor P, Derbigum GP, Derbicolor GP, Derbigum GP-FR, Derbicolor GP-FR, Derbicolor P-FR, Derbigum XPS, Derbicolor XPS, Derbigum XPS-FR, Derbicolor XPS-FR or Derbibrite torch applied to substrate or with a full application of Permastic adhesive at a rate of 1.5-2 gal/sq.

Surfacing: (Optional) Apply any coating listed in Table 4, or any Miami-Dade approved coating system

Maximum Design Pressure: -60 psf. (See General Limitation #7)

Membrane Type: APP

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Elastizell cellular Lightweight Concrete (Min. 300 psi).

System Type A(2): Anchor sheet mechanically fastened; one or more layers of insulation adhered with approved asphalt or Permastic adhesive.

Deck: 18-22 ga, 33ksi. steel deck shall be secured 6" o.c. to structural supports spaced a maximum of 5 ft on centers with screws or puddle welds. Deck side laps are fastened 18 in. o.c. with Traxx/1 fasteners.

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

All General and System limitations apply.

Anchor Sheet: One ply of PRS Glass Base, Derbibase, Derbibase Ultra or Derbigum GP fastened to the deck as described below.

Fastening: Fasten base sheet to deck with Trufast FM-90 Base Sheet Fasteners or Trufast Twin Loc-Nail Assembled Fasteners (1.8") at a 4" side lap 7" o.c. and 7" o.c. in two evenly spaced rows in the center of the sheet.

Base or Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Approved Type(s): **Any Approved Insulations in Table 2**	**N/A**	**N/A**

Note: All insulation shall be adhered to the anchor sheet in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs., full application of Permastic adhesive at a rate of 1.5-2 gal/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations 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.

Membrane: One ply of Bitutak MB, Resisto Bitutak MB Smooth, Bitutak MB Mineral, Resisto Bitutak MB Mineral, Bitutak Cold, Bitutak Cold Mineral, Derbigum P, Derbicolor P, Derbigum GP, Derbicolor GP, Derbigum GP-FR, Derbicolor GP-FR, Derbicolor P-FR, Derbigum XPS, Derbicolor XPS, Derbigum XPS-FR, Derbicolor XPS-FR or Derbibrite torch applied to base sheet or with a full application of Permastic adhesive at a rate of 1.5-2 gal/sq.

Surfacing: (Optional) Apply any coating listed in Table 4, or any Miami-Dade approved coating system

Maximum Design Pressure: -45 psf. (See General Limitation #7)

Membrane Type: APP

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Celcore MF Lightweight Concrete.

System Type A(3): All layers of insulation adhered with approved adhesive. Membrane subsequently adhered to insulation.

Deck: Min. 421 psi Celcore MF with HS Rheology Admixture poured in minimum 1/8" slurry coat with minimum 1-inch EPS board is placed into the wet lightweight concrete over structural concrete deck with vapor barrier. Minimum 2-inch thick top coat of lightweight cellular concrete is cast over the EPS insulation. Celcore PVA curing compound is applied after setting of top coat applied at a rate of 300 ft^2/gal**.**

All General and System limitations apply.

Anchor Sheet: Derbibase Ultra torched adhered to the substrate.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Derbiboard Minimum 1.5" thick	**NA**	**NA**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK Gypsum-Fiber Roof Board, DensDeck Prime Minimum 1/4" thick	**N/A**	**N/A**
SOPRABOARD Minimum 1/8" thick	**N/A**	**N/A**

Note: Insulation shall be adhered to the deck in full application of OMG OlyBond 500 in continuous ¾" to 1" wide ribbons spaced 12" o.c., DUOTACK or DUOTACK 365 at a continuous rate of 0.5-0.75-inch wide ribbons, 12-inch o.c.

Base Sheet: One ply of Derbibase, Derbibase Ultra, Derbibase HV, Bitutak MB, Resisto Bitutak MB Smooth, Derbigum GP or Derbigum XPS torch adhered to the insulated substrate.

Ply Sheet: (Optional) One or more plies of Derbibase, Derbibase Ultra, Derbigum GP, Derbigum GP-FR, Derbigum XPS or Derbigum XPS-FR adhered by torch to the substrate or Derbibase SA, self-adhered.

Membrane: Derbigum GP, Derbicolor GP, Derbigum GP-FR, Derbicolor GP-FR, Derbigum XPS, Derbicolor XPS, Derbigum XPS-FR, Derbicolor XPS-FR, Derbigum P, Derbicolor P, Derbicolor P-FR, Bitutak MB Mineral, Resisto Bitutak MB Mineral, Bitutak Cold, Bitutak Cold Mineral or Derbibrite adhered by torch to base and/or ply sheet.

Surfacing: (Optional)	Apply any coating listed in Table 4, or any Miami-Dade approved coating system
Maximum Design Pressure:	-102.5 psf. (See General Limitation #9)

Membrane Type: APP

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Concrecel Lightweight Concrete (Min. 250 psi).

System Type A(4): All layers of insulation adhered with approved adhesive. Membrane subsequently adhered to insulation.

Deck: Minimum 22 ga, 33ksi. steel deck with 1.5" deep corrugations, type B vented steel deck secured to structural supports spaced a maximum of 5 ft o.c. with #12-24 self drilling Tek Screws, one at each flute. Deck side laps shall be secured at 6 inches o.c. with #12 S.M. self drilling screws. Rigid insulation panels shall be placed in a minimum ¼" slurry-coat of insulating concrete and allowed to cure overnight. The following day the rigid insulation shall be covered with a minimum 2" topcoat cast of Concrecel. After an additional cure time of 24 hours, Concrecel Curing Compound shall be roller applied at a rate of 300 sq. ft/gal.

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

All General and System limitations apply.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
SECUROCK Gypsum-Fiber Roof Board Minimum ¾" thick	**N/A**	**N/A**
SOPRABOARD Minimum 1/8" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck in full application of OMG OlyBond 500 in continuous ¾" to 1" wide beads 6" o.c., DUOTACK or DUOTACK 365 at a continuous rate of 0.5-0.75-inch wide ribbons, 12-inch o.c.

Base Sheet: (Optional) One or more plies of Derbibase, Derbibase Ultra or Derbigum GP applied to the insulated substrate with Permastic adhesive at a rate of 1.5 – 2 gal./sq. or torch-applied or Derbibase SA, self-adhered.

Membrane: Derbigum GP, Derbicolor GP, Derbigum GP-FR, Derbicolor GP-FR, Derbigum XPS, Derbicolor XPS, Derbigum XPS-FR, Derbicolor XPS-FR, Derbigum P, Derbicolor P, Derbicolor P-FR, Derbibrite, Bitutak MB, Resisto Bitutak MB Smooth, Bitutak MB Mineral, Resisto Bitutak MB Mineral, Bitutak Cold or Bitutak Cold Mineral torch applied to base sheet or with a full application of Permastic adhesive at a rate of 1.5-2 gal/sq.

Surfacing: (Optional) Apply any coating listed in Table 4, or any Miami-Dade approved coating system

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

Membrane Type: APP

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Concrecel Lightweight Concrete (Min. 250 psi).

System Type A(5): All layers of insulation adhered with approved adhesive. Membrane subsequently adhered to insulation.

Deck: Minimum 22 ga., 80ksi. steel deck with 1.5" deep corrugations, type B vented steel deck secured to structural supports spaced a maximum of 5 ft o.c. with #12-24 self drilling Tek Screws, one at each flute. Deck side laps shall be secured at 6 inches o.c. with #12 S.M. self drilling screws. Rigid insulation panels shall be placed in a minimum ¼" slurry-coat of insulating concrete and allowed to cure overnight. The following day the rigid insulation shall be covered with a minimum 2" topcoat cast of Concrecel. After an additional cure time of 24 hours, Concrecel Curing Compound shall be roller applied at a rate of 300 sq. ft/gal.

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

All General and System limitations apply.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Derbiboard, Derbiboard CA, ACFoam-II, ACFoam-III Minimum 1.5" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/4" thick	**N/A**	**N/A**
Structodek High Density Fiberboard Roof Insulation Minimum ½" thick	**N/A**	**N/A**
SOPRABOARD Minimum 1/8" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck in full application of OlyBond 500 in continuous ¾" to 1" wide beads 6" o.c., DUOTACK or DUOTACK 365 at a continuous rate of 0.5-0.75-inch wide ribbons, 12-inch o.c.

Base Sheet: (Optional) One or more plies of Derbibase, Derbibase Ultra or Derbigum GP applied to the insulated substrate with Permastic adhesive at a rate of 1.5 – 2 gal./sq. or torch-applied or Derbibase SA, self-adhered.

Membrane: Derbigum GP, Derbicolor GP, Derbigum GP-FR, Derbicolor GP-FR, Derbigum XPS, Derbicolor XPS, Derbigum XPS-FR, Derbicolor XPS-FR, Derbigum P, Derbicolor P, Derbicolor P-FR, Derbibrite, Bitutak MB, Resisto Bitutak MB Smooth, Bitutak MB Mineral, Resisto Bitutak MB Mineral, Bitutak Cold or Bitutak Cold Mineral torch applied to base sheet or with a full application of Permastic adhesive at a rate of 1.5-2 gal/sq.

Surfacing: (Optional)	Apply any coating listed in Table 4, or any Miami-Dade approved coating system
Maximum Design Pressure:	-135 psf. (See General Limitation #7)

Membrane Type: APP

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Concrecel Cellular Lightweight Concrete.

System Type D(1): All insulation is loosed laid with preliminary attachment to deck. Base sheet is subsequently mechanically fastened through insulation to the roof deck.

Deck: Minimum 22 ga., 80ksi. steel deck shall be secured to structural supports spaced a maximum of 6 ft o.c. with 5/8" puddle welds and washer placed at 6" o.c. Deck side laps shall be secured at 12 inches o.c. with #10 TEK screws. Rigid insulation panels shall be placed in a minimum ¼" slurry-coat of insulating concrete with a minimum compressive strength of 250 psi and allowed to cure overnight. The following day the rigid insulation shall be covered with a minimum 2" topcoat cast of Concrecel. After an additional cure time of 24 hours, Concrecel Curing Compound shall be roller applied at a rate of 300 sq. ft/gal.

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

All General and System limitations apply.

Base or Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Approved Type(s): **Any Approved Insulations in Table 2**	**N/A**	**N/A**

All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Anchor Sheet: One or more plies of PRS Glass Base, Derbibase, Derbibase Ultra or Derbigum GP loose laid over lightweight insulating concrete deck.

Base Sheet: One or more plies of Derbigum GP shall be fastened through the lightweight insulating concrete to the structural steel deck as described below:

Fastening: Fasten base sheet to steel deck with primed batten bars at the seams and one at the field of the sheet spaced 18" o.c. and fastened 6" o.c. with Perlok-O #12 screws and #12 Standard Roofgrip fasteners into the steel deck.

Ply Sheet: Optional: One or more plies of Derbibase, Derbibase Ultra or Derbigum GP base torch applied to base sheet or Derbibase SA, self-adhered.

Membrane: Derbigum GP, Derbicolor GP, Derbigum GP-FR, Derbicolor GP-FR, Derbigum XPS, Derbicolor XPS, Derbigum XPS-FR, Derbibrite, Derbigum P, Derbicolor P, Derbicolor P-FR, Bitutak MB, Resisto Bitutak MB Smooth, Bitutak MB Mineral, Resisto Bitutak MB Mineral, Bitutak Cold or Bitutak Cold Mineral torch applied to ply sheet or with a full application of Permastic adhesive at a rate of 1.5-2 gal/sq.

Surfacing: (Optional)	Apply any coating listed in Table 4, or any Miami-Dade approved coating system
Maximum Design Pressure:	-105 psf. (See General Limitation #7)

Membrane Type:	APP
Deck Type 4:	Lightweight Concrete, Non-Insulated
Deck Description:	Concrecel Cellular Lightweight Concrete.
System Type E(1):	Base sheet mechanically fastened to roof deck. Membrane subsequently adhered.
Deck:	18-22 ga., 33ksi. steel deck shall be secured to structural supports spaced a maximum of 5 ft o.c. with 5/8" puddle welds and washer placed at 6" o.c. Deck side laps are fastened 12 in. o.c. with Traxx/1 fasteners. Followed by Concrecel Bonding agent applied to the deck at rate 1200 sq. ft/gal using a compressed air sprayer. Rigid insulation panels shall be placed in a minimum ¼" slurry-coat of insulating concrete and allowed to cure overnight. The following day the rigid insulation shall be covered with a minimum 2¼" topcoat cast of Concrecel. After an additional cure time of 24 hours Concrecel Curing Compound was roller applied at a rate of 300 sq. ft/gal. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submittted Table.**

All General and System limitations apply.

Base Sheet:	One ply of PRS Glass Base, Derbibase, Derbibase Ultra or Derbigum GP fastened to the deck as described below:
Fastening:	Fasten base sheet to deck with Trufast FM-90 Base Sheet Fasteners or CR Base Sheet Fasteners (1.7") at a 4" side lap 7" o.c. and 7" o.c. in two evenly spaced rows in the center of the sheet.
Membrane:	One or more plies of Derbigum GP, Derbicolor GP, Derbigum GP-FR, Derbicolor GP-FR, Derbigum XPS, Derbicolor XPS, Derbigum XPS-FR, Derbibrite, Derbigum P, Derbicolor P, Bitutak MB, Resisto Bitutak MB Smooth, Bitutak MB Mineral, Resisto Bitutak MB Mineral, Bitutak Cold or Bitutak Cold Mineral torch applied to ply sheet or with a full application of Permastic adhesive at a rate of 1.5-2 gal/sq.
Surfacing: (Optional)	Apply any coating listed in Table 4, or any Miami-Dade approved coating system
Maximum Design Pressure:	-60 psf. (See General Limitation #7)

Membrane Type:	APP
Deck Type 4:	Lightweight Concrete, Non-Insulated
Deck Description:	Elastizell cellular Lightweight Concrete. (Min. 250 psi).
System Type E(2):	Base sheet mechanically fastened to roof deck. Membrane subsequently adhered.
Deck:	18-22 ga., 33ksi. steel deck shall be secured 6” o.c. to structural supports spaced a maximum of 5 ft on centers with screws or puddle welds. Deck side laps are fastened 12 in. o.c. with Traxx/1 fasteners. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submittted Table.**

All General and System limitations apply.

Base Sheet:	One ply of PRS Glass Base, Derbibase, Derbibase Ultra or Derbigum GP fastened to the deck as described below:
Fastening:	Fasten base sheet to deck with Trufast FM-90 Base Sheet Fasteners or Trufast Twin Loc-Nail Assembled Fasteners (1.8”) at a 4" side lap 7" o.c. and 7” o.c. in two evenly spaced rows in the center of the sheet.
Membrane:	One or more plies of Derbigum GP, Derbicolor GP, Derbigum GP-FR, Derbicolor GP-FR, Derbigum XPS, Derbicolor XPS, Derbigum XPS-FR, Derbibrite, Derbigum P, Derbicolor P, Bitutak MB, Resisto Bitutak MB Smooth, Bitutak MB Mineral, Resisto Bitutak MB Mineral, Bitutak Cold or Bitutak Cold Mineral torch applied to ply sheet or with a full application of Permastic adhesive at a rate of 1.5-2 gal/sq.
Surfacing: (Optional)	Apply any coating listed in Table 4, or any Miami-Dade approved coating system
Maximum Design Pressure:	-105 psf. (See General Limitation #7)

Membrane Type:	APP
Deck Type 4:	Lightweight Concrete, Non-Insulated
Deck Description:	Celcore Cellular Lightweight Concrete.
System Type E(3):	Base sheet mechanically fastened to roof deck. Membrane subsequently adhered.
Deck:	18-22 ga., 33ksi. steel deck shall be secured to structural supports spaced a maximum of 5 ft o.c. with 5/8" puddle welds and washer placed at 6" o.c. at each bearing. Deck side laps are secured at the center of each span with Stitch Teks 1 or ICH Traxx/1 Fasteners. Followed by a slurry coat of minimum wet cast density 38 lb/ft^3. 1 to 12in. thick EPS is placed is placed into the wet lightweight concrete. A minimum 2" thick top coat of lightweight cellular concrete is cast over the insulation with a minimum wet cast density of 38 lb/ft^3. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submittted Table.**

All General and System limitations apply.

Base Sheet:	One ply of Derbibase, Derbibase Ultra or Derbigum GP fastened to the deck as described below**:**:
Fastening:	Fasten base sheet to deck with Trufast FM-90 Base Sheet Fasteners or CR Base Sheet Fasteners (1.7") at a 4" side lap 9" o.c. and 12" o.c. in two evenly spaced rows in the center of the sheet.
Membrane:	One or more plies of Derbigum GP, Derbicolor GP, Derbigum GP-FR, Derbicolor GP-FR, Derbigum XPS, Derbicolor XPS, Derbigum XPS-FR, Derbicolor XPS-FR, Derbibrite, Derbigum P, Derbicolor P, Bitutak MB, Resisto Bitutak MB Smooth, Bitutak MB Mineral, Resisto Bitutak MB Mineral, Bitutak Cold or Bitutak Cold Mineral torch applied to ply sheet or with a full application of Permastic adhesive at a rate of 1.5-2 gal/sq.
Surfacing: (Optional)	Apply any coating listed in Table 4, or any Miami-Dade approved coating system
Maximum Design Pressure:	-60 psf. (See General Limitation #7)

Membrane Type:	APP
Deck Type 4:	Lightweight Concrete, Non-Insulated
Deck Description:	Celcore Cellular Lightweight Concrete.
System Type E(4):	Base sheet mechanically fastened to roof deck. Membrane subsequently adhered.
Deck:	18-22 ga., 33ksi., vented steel deck 1.5" Type B, attached to structural supports spaced a maximum of 6 ft o.c. with 5/8" puddle welds in each flute 6" o.c. Deck side laps shall be secured at 6 inches o.c. with #10 S.M. self drilling. Insulfoam EPS board with a density of 1pcf was firmly pressed over a minimum ¼" slurry-coat of Concrecel Light Weight Concrete with minimum compressive strength of 250-300 psi. The Insulfoam EPS board shall be covered with a minimum 2" topcoat cast of Concrecel. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submittted Table.**

All General and System limitations apply.

Base Sheet:	One ply of PRS Glass Base, Derbibase, Derbibase Ultra or Derbigum GP fastened to the deck as described below**:**:
Fastening:	Fasten base sheet to deck with Trufast FM-90 Base Sheet Fasteners or CR Base Sheet Fasteners (1.7") at a 3" side lap 7" o.c. and 7" o.c. in two staggered rows in the center of the sheet.
Ply Sheet:	One or more plies of Derbibase, Derbibase Ultra or Derbigum GP base overlapped 3" and torched to base sheet or Derbibase SA, self-adhered.
Membrane:	One ply Bitutak MB, Resisto Bitutak MB Smooth, Bitutak MB Mineral, Resisto Bitutak MB Mineral, Bitutak Cold, Bitutak Cold Mineral, Derbigum GP-FR, Derbicolor GP-FR, Derbigum XPS, Derbicolor XPS, Derbigum P, Derbicolor P or Derbicolor P-FR torch applied to ply sheet.
Surfacing: (Optional)	Apply any coating listed in Table 4, or any Miami-Dade approved coating system
Maximum Design Pressure:	-45 psf. (See General Limitation #7)

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Membrane Type:	APP
Deck Type 4:	Lightweight Concrete, Non-Insulated
Deck Description:	Celcore Cellular Lightweight Concrete.
System Type E(5):	Base sheet mechanically fastened to roof deck. Membrane subsequently adhered.
Deck:	18-22 ga., 33ksi. vented steel deck 1.5" Type B, attached to structural supports spaced a maximum of 6 ft o.c. with 5/8" puddle welds in each flute 6" o.c. Deck side laps shall be secured at 6 inches o.c. with #10 S.M. self drilling. Insulfoam EPS board with a density of 1pcf was firmly pressed over a minimum ¼" slurry-coat of Concrecel Light Weight Concrete with minimum compressive strength of 250-300 psi. The Insulfoam EPS board shall be covered with a minimum 2" topcoat cast of Concrecel. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submittted Table.**

All General and System limitations apply.

Base Sheet:	One ply of PRS Glass Base, Derbibase, Derbibase Ultra or Derbigum GP base sheet fastened to the deck as described below**:**
Fastening:	Fasten base sheet to deck with Perlok XHD fasteners and Perlok-O 3" Ribbed Plates at a 4" side lap 7" o.c. and 7" o.c. in two staggered rows in the center of the sheet.
Ply Sheet:	One or more plies of Derbibase, Derbibase Ultra or Derbigum GP base overlapped 3" and torched to base sheet or Derbibase SA, self-adhered.
Membrane:	One ply Bitutak MB, Resisto Bitutak MB Smooth, Bitutak MB Mineral, Resisto Bitutak MB Mineral, Bitutak Cold, Bitutak Cold Mineral, Derbigum GP-FR, Derbicolor GP-FR, Derbigum XPS, Derbicolor XPS, Derbigum P, Derbicolor P or Derbicolor P-FR torch applied to ply sheet.
Surfacing: (Optional)	Apply any coating listed in Table 4, or any Miami-Dade approved coating system
Maximum Design Pressure:	-82.5 psf. (See General Limitation #7)

Membrane Type:	APP
Deck Type 4:	Lightweight Concrete, Non-Insulated
Deck Description:	Celcore Cellular Lightweight Concrete.
System Type E(6):	Base sheet mechanically fastened to roof deck. Membrane subsequently adhered.
Deck:	Minimum 22 ga., 33ksi., Type B steel deck welded to supports spaced 5-ft o.c. with 3/8 in. diameter weld washers spaced 6 in. o.c. Side laps fastened 30 in. o.c. with Teks 1 or Traxx/1 fasteners. Minimum wet cast density 38 pcf Celcore MF with HS Rheology Admixture poured in minimum 1/8" slurry coat with minimum 1-inch EPS board is placed into the wet lightweight. Minimum 2-inch thick top coat of lightweight cellular concrete is cast over the EPS insulation. Celcore PVA curing compound is applied after setting of top coat applied at a rate of 300 ft^2/gal. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submittted Table.**

All General and System limitations apply.

Base Sheet:	One ply of Derbibase base sheet fastened to the deck as described below**:**
Fastening:	Fasten base sheet to deck with Trufast FM-90 Base Sheet Fasteners spaced 9" o.c.at the minimum 4" side lap and at 9" o.c. in two evenly spaced rows in the field of the sheet.
Ply Sheet:	(Optional) One or more plies of Derbibase, Derbibase Ultra, Derbibase HV, Derbigum GP or Derbigum XPS adhered by torch to base sheet or Derbibase SA, self-adhered.
Membrane:	One or more plies of Derbigum GP, Derbicolor GP, Derbigum GP-FR, Derbicolor GP-FR, Derbigum P-FR, Derbigum XPS, Derbicolor XPS, Derbigum XPS-FR, Derbicolor XPS-FR, Derbigum P, Derbicolor P, Derbicolor P-FR, Bitutak MB, Resisto Bitutak MB Smooth, Bitutak MB Mineral, Resisto Bitutak MB Mineral, Bitutak Cold, Bitutak Cold Mineral or Derbibrite fully adhered by torch to base and/or ply sheet.
Surfacing: (Optional)	Apply any coating listed in Table 4, or any Miami-Dade approved coating system
Maximum Design Pressure:	-60 psf. (See General Limitation #7)

Membrane Type:	APP
Deck Type 4:	Lightweight Concrete, Non-Insulated
Deck Description:	Celcore Cellular Lightweight Concrete.
System Type E(7):	Base sheet mechanically fastened to roof deck. Membrane subsequently adhered.
Deck:	Minimum 22 ga., 33ksi, Type BV steel deck welded to supports spaced 5-ft o.c. with 0.5 in. diameter welds spaced 6 in. o.c. Side laps fastened 15 in. o.c. with 1/4x14x7/8 in. HWH fasteners. Minimum 370 psi Celcore MF with HS Rheology Admixture poured in minimum 1/8" slurry coat with minimum 1-inch EPS board is placed into the wet lightweight. Minimum compressive strength of 310 psi, 2-inch thick top coat of lightweight cellular concrete is cast over the EPS insulation. Celcore PVA curing compound is applied after setting of top coat applied at a rate of 300 ft^2/gal. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submittted Table.**

All General and System limitations apply.

Base Sheet:	One ply of Derbibase HV base sheet fastened to the deck as described below**:**
Fastening:	Fasten base sheet to deck with Trufast FM-90 Base Sheet Fasteners spaced 6" o.c. through the minimum 4" side laps and spaced 6" o.c. in two equally spaced staggered rows in the field of the sheet.
Ply Sheet:	(Optional) One or more plies of Derbibase, Derbibase Ultra, Derbibase HV, Derbigum GP or Derbigum XPS adhered by torch to base sheet or Derbibase SA, self-adhered.
Membrane:	One ply of Derbigum GP, Derbicolor GP, Derbigum GP-FR, Derbicolor GP-FR, Derbigum P-FR, Derbigum XPS, Derbicolor XPS, Derbigum XPS-FR, Derbicolor XPS-FR, Derbigum P, Derbicolor P, Derbicolor P-FR, Bitutak MB, Resisto Bitutak MB Smooth, Bitutak MB Mineral, Resisto Bitutak MB Mineral, Bitutak Cold, Bitutak Cold Mineral or Derbibrite adhered by torch to base and/or ply sheet.
Surfacing: (Optional)	Apply any coating listed in Table 4, or any Miami-Dade approved coating system
Maximum Design Pressure:	-60 psf. (See General Limitation #7)

Membrane Type:	APP
Deck Type 4:	Lightweight Concrete, Non-Insulated
Deck Description:	Celcore MF Lightweight Concrete.
System Type E(8):	Base sheet mechanically fastened to roof deck. Membrane subsequently adhered.
Deck:	Minimum 22 ga., 33ksi, Type B steel deck welded to supports spaced 5-ft o.c. with 0.5 in. diameter weld washers spaced 6 in. o.c. Side laps fastened 18 in. o.c. with 1/4x14x7/8 in. HWH fasteners. Minimum compressive strength of 390 psi Celcore MF with HS Rheology Admixture poured in minimum 1/8" slurry coat with minimum 1-inch EPS board is placed into the wet lightweight. Minimum 2-inch thick top coat of lightweight cellular concrete is cast over the EPS insulation. Celcore PVA curing compound is applied after setting of top coat applied at a rate of 300 ft^2/gal. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submittted Table.**

All General and System limitations apply.

Base Sheet:	One ply of Derbibase HV base sheet fastened to the deck as described below:
Fastening:	Fasten base sheet to deck with Trufast Twin Loc-Nail Assembled Fasteners spaced 7.5" o.c. through the minimum 3" side laps and spaced 7.5" o.c. in two equally spaced staggered rows in the field of the sheet.
Ply Sheet:	One or more plies of Derbibase, Derbibase Ultra, Derbibase HV, Derbigum GP or Derbigum XPS adhered by torch to base sheet or Derbibase SA, self-adhered.
Membrane:	One ply of of Derbigum GP, Derbicolor GP, Derbigum GP-FR, Derbicolor GP-FR, Derbigum P-FR, Derbigum XPS, Derbicolor XPS, Derbigum XPS-FR, Derbicolor XPS-FR, Derbigum P, Derbicolor P, Derbicolor P-FR, Bitutak MB, Resisto Bitutak MB Smooth, Bitutak MB Mineral, Resisto Bitutak MB Mineral, Bitutak Cold, Bitutak Cold Mineral or Derbibrite adhered by torch to base and/or ply sheet.
Surfacing: (Optional)	Apply any coating listed in Table 4, or any Miami-Dade approved coating system
Maximum Design Pressure:	-67.5 psf. (See General Limitation #7)

Membrane Type: APP

Deck Type 4: Lightweight Concrete, Non-Insulated

Deck Description: Celcore MF Lightweight Concrete.

System Type F(1): Membranes adhered to roof deck.

Deck: Minimum 22 ga steel deck shall be secured to structural supports spaced at maximum of 5 ft o.c. with #12-24 self drilling (SD) Tek Screws one in each flute. Deck side laps shall be secured at 6 inches o.c. with #12 S.M. self drilling. EPS Dyplas with a density of 1 lb was firmly pressed over a minimum ¼" slurry-coat of Concrecel Light Weight Concrete with minimum compressive strength of 250 psi. The EPS Dyplas shall be covered with a minimum 2" topcoat cast of Concrecel.

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

All General and System limitations apply.

Base Sheet: One ply of PRS Glass Base, Derbibase, Derbibase Ultra or Derbigum GP set in Permastic adhesive and torched down seams over the substrate or Derbibase SA, self-adhered.

Membrane: One ply Bitutak MB, Resisto Bitutak MB Smooth, Bitutak MB Mineral, Resisto Bitutak MB Mineral, Derbigum GP-FR, Derbicolor GP-FR, Derbigum P, Derbicolor P, Derbicolor P-FR, Derbigum XPS, Derbicolor XPS, Bitutak MB Mineral, Resisto Bitutak MB Mineral, Bitutak Cold or Bitutak Cold Mineral torch applied to ply sheet.

Surfacing: (Optional) Apply any coating listed in Table 4, or any Miami-Dade approved coating system

Maximum Design Pressure: -75 psf. (See General Limitation #9)

Membrane Type:	APP
Deck Type 4:	Lightweight Concrete, Non-Insulated
Deck Description:	Celcore MF Lightweight Concrete.
System Type F(2):	Membranes adhered to roof deck.
Deck:	Min. 292 psi Celcore MF with HS Rheology Admixture poured in minimum 1/4" slurry coat with minimum 1 inch EPS board is placed into the wet lightweight concrete over structural concrete deck with vapor barrier. Minimum 2 inch thick top coat of lightweight cellular concrete is cast over the EPS insulation. Celcore PVA curing compound is applied after setting of top coat applied at a rate of 300 ft^2/gal.

All General and System limitations apply.

Base Sheet:	One or more plies of Derbibase, Derbibase Ultra, and Derbibase HV torch adhered after priming with ASTM D 41 primer applied at a rate of 100ft^2/ga.
Ply Sheet:	(Optional) One or two plies of Derbibase, Derbibase Ultra, Derbibase HV, Derbigum GP, or Derbigum XPS fully adhered by torch or Derbibase SA, self-adhered.
Membrane:	Derbigum GP, Derbicolor GP or Derbigum GP-FR, Derbicolor GP-FR, Derbigum P-FR, Derbigum XPS, Derbicolor XPS or Derbigum XPS-FR, Derbicolor XPS-FR, Derbigum P, Derbicolor P, Derbicolor P-FR, Bitutak MB, Resisto Bitutak MB Smooth, Bitutak MB Mineral, Resisto Bitutak MB Mineral, Bitutak Cold, Bitutak Cold Mineral or Derbibrite adhered by torch.
Surfacing: (Optional)	Apply any coating listed in Table 4, or any Miami-Dade approved coating system
Maximum Design Pressure:	-200 psf. (See General Limitation #9)

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 Professional Engineer, Registered 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 Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant
   (When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners).
   (When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)
10 All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE