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)

Performance Roof Systems, Inc.
4800 Blue Parkway
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 by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone 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 renews NOA# 02-1209.01 and consists of pages 1 through 13.
The submitted documentation was reviewed by Alex Tigera.

ROOFING ASSEMBLY APPROVAL

Category:	Roofing
Sub-Category:	APP/SBS Modified Bitumen
Deck Type:	Lightweight Insulating Concrete
Maximum Design Pressure	-105 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.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

TABLE 1

Product	Dimensions	Test Specification	Product Description
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.
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.
PRS Modified Base	180' x 36" roll weight: 82 lbs.	ASTM D 5147	SBS polymer modified bitumen base sheet.
Permax B-Base		ASTM D 5147	SBS polymer modified bitumen base sheet.
Permax B-Economy	39 1/2" x 33'11"	ASTM D 6164	SBS polymer modified bitumen, polyester reinforced membrane.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

TABLE 1

Product	Dimensions	Test Specification	Product Description
Permax A-Economy	39.4" x 33' roll weight: 89 lbs.	ASTM D 6222	APP polymer modified bitumen, polyester reinforced membrane.
Permax A-Economy (Mineral)	39.4" x 33' roll weight: 103 lbs.	ASTM D 6222	Mineral surfaced APP polymer modified bitumen, polyester reinforced membrane.
Bitutak MB	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
Permastic	5-gallon pails 55-gallon drums 350-gallong tanks		Asphalt-based adhesive formulated especially for adhering Derbigum/Derbicolor roofing membranes, Derbibase/Ultra , glass ply sheets and glass base sheets.
Permastic IA	5-gallon pails 55-gallon drums 350-gallong tanks		Asphalt-based adhesive formulated especially for adhering base sheets and Derbiboard insulation to concrete, non-nailable substrates or polyisocyanurate.

APPROVED INSULATIONS:

TABLE 2

Product	Dimensions	Test Specification	Product Description	Manufacturer
ACFoam I	various	PA 110	Polyisocyanurate foam insulation	Atlas Energy Products
ACFoam II Derbiboard	various	PA 110	Polyisocyanurate foam insulation	Atlas Energy Products
ACFoam III Derbiboard CA Derbiboard Composite	various	PA 110	Polyisocyanurate foam insulation	Atlas Energy Products
Hy-Therm AP	various	PA 110	Polyisocyanurate foam insulation	Celotex Corp.
Thermax Hy-Tec	various	PA 110	Polyisocyanurate foam insulation	Celotex Corp.
High Density Wood Fiberboard	various	PA 110	Wood fiber insulation board	generic

APPROVED INSULATIONS:

TABLE 2

Product	Dimensions	Test Specification	Product Description	Manufacturer
Perlite Insulation	Various	PA 110	Perlite insulation board	generic
Type X Gypsum	various		Fire resistant rated gypsum	Generic
E'NERG'Y PSI-25	various	PA 110	Polyisocyanurate foam insulation	NRG Barriers, Inc.
E'NRG'Y-2	various	PA 110	Polyisocyanurate foam insulation	NRG Barriers, Inc.
Fiberglas	various	PA 110	Fiber glass roof insulation	Owens-Corning Fiberglas Corp.
Multi-Max	various	PA 110	Polyisocyanurate foam insulation	RMAX

EVIDENCE SUBMITTED

Test Agency	Test Identifier	Description	Date
Exterior Research & Design, LLC	10720.10.97-1	Uplift PA 114	10/17/97
Factory Mutual Research Corporation	2W3A6.AM 2Y3A2.AM	Fire Classification	02/21/97
Factory Mutual Research Corporation	2B5A5.AM	Fire Classification	05/14/97
Factory Mutual Research Corporation	1D7A4.AM 2B5A7.AM	Windstorm Classification	11/9/98 03/1/99
IRT-ARCON	PC03-001 PC03-002	Uplift PA 114-95	01/17/03

APPROVED SYSTEMS

Membrane Type: APP

Deck Type 4: Lightweight Concrete

Deck Description: Concrecel Cellular Lightweight Concrete

System Type E-1: Anchor sheet mechanically fastened.

Deck : 18-22 ga 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. 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.

Anchor Sheet: One ply of Perma Ply #28, PRS Glass Base, or Derbibase, Derbibase Ultra, Derbigum GP base sheet fastened to the deck as described below:

Fastening: Fasten base sheet to deck with ES Products FM-90 Base Ply Fasteners or Olympic CR Base Sheet Ply Fasteners 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 ply Permax A-Economy/Mineral, Bitutak MB/Mineral, Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS torch applied to base sheet or with a full application of PERMASTIC® adhesive at a rate of 1.5-2 gal/sq.

Surfacing: (Required if no cap sheet is used) Install one of the following:

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. ± 15%.

2. APOC 400 applied at 1.3 gal./sq.. Karnak 97, Grundy al MB, or Permalume aluminum, applied at an application rate of 1.5 gal./sq.. Grundy 20F or Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 or ATCO 1851 FR applied at an application rate of 3 gal./sq.. VIP-400 or ATCO 1846 applied at an application rate of 3.5 gal./sq.

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

Membrane Type: APP

Deck Type 4: Lightweight Concrete

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

System Type E-2: Anchor sheet mechanically fastened to roof deck.

Deck : 18-22 ga steel deck shall be secured 6" o.c. to structural supports spaced a maximum of 5 ft on centers with screws or puddle welds.

Anchor Sheet: One ply of Perma Ply #28, PRS Glass Base, or Derbibase, Derbibase Ultra, Derbigum GP base sheet fastened to the deck as described below:

Fastening: Fasten base sheet to deck with ES Products FM-90 Base Ply Fasteners or Olympic CR Base Sheet Ply Fasteners 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 ply Permax A-Economy/Mineral, Bitutak MB/Mineral, Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS torch applied to base sheet or with a full application of PERMASTIC® adhesive at a rate of 1.5-2 gal/sq.

Surfacing: (Required if no cap sheet is used) Install one of the following:

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. ± 15%.

2. APOC 400 applied at 1.3 gal./sq.. Karnak 97, Grundy al MB, Permalume aluminum, applied at an application rate of 1.5 gal./sq. Grundy 20F or Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 or ATCO 1851 FR applied at an application rate of 3 gal./sq.. VIP-400 or ATCO 1846 applied at an application rate of 3.5 gal./sq.

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

Membrane Type: APP

Deck Type 4I: Lightweight Concrete

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 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. 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.

All General and System Limitations apply.

Insulation Base or Top Layer	Fastener Type	Fastening Detail No. (See RAS 117)	Fasteners Per Board	Fastener Density

Approved Type(s): **Any Approved Insulations in Table 2**

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. or 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.

Anchor Sheet: One ply of Perma Ply #28, PRS Glass Base, or Derbibase, Derbibase Ultra, or Derbigum GP base sheet fastened to the deck as described below:

Fastening: Fasten base sheet to deck with ES Products FM-90 Base Ply Fasteners or Olympic CR Base Sheet Ply Fasteners 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 ply Permax A-Economy/Mineral, Bitutak MB/Mineral, Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS torch applied to base sheet or with a full application of PERMASTIC® adhesive at a rate of 1.5-2 gal/sq.

Surfacing: (Required if no cap sheet is used) Install one of the following:

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. ± 15%.
2. APOC 400 applied at 1.3 gal./sq.. Karnak 97, Grundy al MB, or Permalume aluminum, applied at an application rate of 1.5 gal./sq.. Grundy 20F or Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 or ATCO 1851 FR applied at an application rate of 3 gal./sq.. VIP-400 or ATCO 1846 applied at an application rate of 3.5 gal./sq.

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

Membrane Type: APP

Deck Type 4I: Lightweight Concrete

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 steel deck shall be secured 6" o.c. to structural supports spaced a maximum of 5 ft on centers with screws or puddle welds.

All General and System Limitations apply.

Insulation Base or Top Layer	Fastener Type	Fastening Detail No. (See RAS 117)	Fasteners Per Board	Fastener Density

Approved Type(s): **Any Approved Insulations in Table 2**

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. or 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.

Anchor Sheet: One ply of Perma Ply #28, PRS Glass Base, or Derbibase, Derbibase Ultra, or Derbigum GP base sheet fastened to the deck as described below:

Fastening: Fasten base sheet to deck with ES Products FM-90 Base Ply Fasteners or Olympic CR Base Sheet Ply Fasteners 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 ply Permax A-Economy/Mineral, Bitutak MB/Mineral, Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS torch applied to base sheet or with a full application of PERMASTIC® adhesive at a rate of 1.5-2 gal/sq.

Surfacing: (Required if no cap sheet is used) Install one of the following:

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. ± 15%.
2. APOC 400 applied at 1.3 gal./sq.. Karnak 97, Grundy al MB, Permalume aluminum, applied at an application rate of 1.5 gal./sq. Grundy 20F or Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 or ATCO 1851 FR applied at an application rate of 3 gal./sq.. VIP-400 or ATCO 1846 applied at an application rate of 3.5 gal./sq.

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

Membrane Type: APP

Deck Type 4: Lightweight Concrete

Deck Description: Concrecel Cellular Lightweight Concrete

System Type D-1: Anchor sheet mechanically fastened.

Deck: Minimum 22 ga 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 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.

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

Fastening: Fasten anchor sheet to steel deck with Perlok or Olympic #14 fasteners at the 4" side lap 7" o.c. and 7" o.c. in two additional evenly spaced rows in the center of the sheet

Base Membrane: One or more plies of Derbibase, Derbibase Ultra, Derbigum GP base applied to anchor sheet with PERMASTIC® adhesive at a rate of 1.5-2 gal/sq.

Membrane: One or more plies of Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS or XPS/FR, Permax A-Economy, Permax A-Economy Mineral, Bituak MB, or Bitutak MB Mineral torch applied to base sheet or with a full application of PERMASTIC® adhesive at a rate of 1.5-2 gal/sq.

Surfacing: (Required if no cap sheet is used) Install one of the following:

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. ± 15%.

2. APOC 400 applied at 1.3 gal./sq.. Karnak 97, Grundy al MB, or Permalume aluminum, applied at an application rate of 1.5 gal./sq.. Grundy 20F or Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 or ATCO 1851 FR applied at an application rate of 3 gal./sq.. VIP-400 or ATCO 1846 applied at an application rate of 3.5 gal./sq.

Maximum Design Pressure: -105 psf (See General Limitation #7)

Membrane Type: APP

Deck Type 4: Lightweight Concrete

Deck Description: Concrecel Cellular Lightweight Concrete

System Type D-2: Insulation loose laid with preliminary attachment.

Deck: Minimum 22 ga 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 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.

All General and System Limitations apply.

Insulation Base or Top Layer	Fastener Type	Fastening Detail No. (See RAS 117)	Fasteners Per Board	Fastener Density

Approved Type(s): **Any Approved Insulations in Table 2**

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.

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

Anchor Sheet: One or more plies of Derbigum GP base sheet fastened through the lightweight insulating concrete to the structural steel deck as described below:

Fastening: Fasten anchor sheet to steel deck with Perlock or Olympic #14 fasteners at the 4" side lap 7" o.c. and 7" o.c. in two additional evenly spaced rows in the center of the sheet.

Base Membrane: One or more plies of Derbibase, Derbibase Ultra, Derbigum GP base applied to anchor sheet with PERMASTIC® adhesive at a rate of 1.5-2 gal/sq.

Membrane: One or more plies of Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS or XPS/FR, Permax A-Economy, Permax A-Economy Mineral, Bituak MB, or Bitutak MB Mineral torch applied to base sheet or with a full application of PERMASTIC® adhesive at a rate of 1.5-2 gal/sq.

Surfacing: (Required if no cap sheet is used) Install one of the following:

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. ± 15%.

2. APOC 400 applied at 1.3 gal./sq.. Karnak 97, Grundy al MB, or Permalume aluminum, applied at an application rate of 1.5 gal./sq.. Grundy 20F or Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 or ATCO 1851 FR applied at an application rate of 3 gal./sq.. VIP-400 or ATCO 1846 applied at an application rate of 3.5 gal./sq.

Maximum Design Pressure: -105 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 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 250 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. **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9B-72 of the Florida Administrative Code.

END OF THIS ACCEPTANCE