



**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.

**DESCRIPTION: Performance Modified Roof Systems over Steel Decks**

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

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

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

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

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

This NOA revises NOA No. 06-0817.04 and consists of pages 1 through 27.  
The submitted documentation was reviewed by Alex Tigera.



**NOA No 08-0229.15  
Expiration Date: 08/23/11  
Approval Date: 06/05/08**

## ROOFING ASSEMBLY APPROVAL

Category: Roofing  
Sub-Category: APP/SBS Modified Bitumen  
Deck Type: Steel  
Maximum Design Pressure -105 psf  
Fire Classification: See General Limitation #1

## TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

<b>TABLE 1</b>			
<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
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.
PRS 190	33'4" x 39.4"; roll weight: 90lbs.	ASTM D 6222	Modified bitumen glass fiber reinforced membrane for torch application or Permastic cold adhesive application
PRS 190 Mineral	33'4" x 39.4"; roll weight: 90lbs.	ASTM D 6222	Mineral surfaced modified bitumen glass fiber reinforced membrane for torch application or Permastic cold adhesive application.



## TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

TABLE I

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
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.
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	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.

## TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

**TABLE 1**

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
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 Ultra Base	49' x 39.4" roll	ASTM D 5147	SBS polymer modified bitumen base sheet.
Permax S	39 1/2" x 33'11"	ASTM D 6164	SBS polymer modified bitumen, polyester reinforced membrane.
Permax S-FR	39 1/2" x 33'11"	ASTM D 6164	SBS polymer modified bitumen, polyester reinforced membrane.
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.

**TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT**

**TABLE 1**

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
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.
Permastic IA Strips	125 LF/Roll 6 Rolls/Box 30 Boxes/Pallet		Asphalt-based adhesive formulated especially for adhering Derbiboard insulation to concrete, non-nailable substrates or polyisocyanurate.

**APPROVED INSULATIONS:**

**TABLE 2**

<u>Product</u>	<u>Product Description</u>	<u>Manufacturer</u>
ACFoam I, II, Derbiboard, Derbiboard CA, Derbiboard composite	Polyisocyanurate foam insulation	Atlas Energy Products
EnergyGuard™ Perlite Tapered Edge Strip	Tapered perlite board	GAF Materials Corp.
EnergyGuard™ High Density Fiberboard	High density wood fiberboard insulation.	GAF Materials Corp.
EnergyGuard™ PolyIso, RA	Polyisocyanurate foam insulation	BMCA
EnergyGuard™ Composite, RA	Polyisocyanurate/wood fiberboard or perlite composite	BMCA
ISO 95+	Polyisocyanurate/Perlite rigid insulation	Firestone Building Products, Inc.
ISO 95+ Composite	Polyisocyanurate/Perlite rigid insulation	Firestone Building Products, Inc.
Wood Fiber	Wood Fiber Insulation Board	generic
High Density Wood Fiberboard	Wood fiber insulation board	generic
Perlite Insulation	Perlite insulation board	generic
Type X Gypsum	Fire resistant rates gypsum	Generic
Dens Deck®, Dens Deck Prime™	Water resistant gypsum board	G-P Gypsum Corp.



<u>Product</u>	<u>Product Description</u>	<u>Manufacturer</u>
Securock	Water resistant gypsum board	USG
Fiberglass Roof Insulation	Glass fiber/Mineral fiber insulation	Johns Manville
E'NRG'Y-3, Plus UltraGuard Gold, PSI-25	Polyisocyanurate foam insulation	Johns Manville
ISORoc	Polyisocyanurate foam/rockwool composite insulation	Johns Manville
Structodeck	Woodfiber insulation board	Masonite
Multi-Max, FA	Polyisocyanurate foam insulation	RMax, Inc.

**APPROVED FASTENERS:**

**TABLE 3**

<b>Fastener Number</b>	<b>Product Name</b>	<b>Product Description</b>	<b>Dimensions</b>	<b>Manufacturer (With Current NOA)</b>
1.	Olympic/Perlok #12 Standard & #14 Heavy Duty Roofing Fastener	Base sheet fastening assembly	Various	Olympic Manufacturing Group, Inc.
2.	Dekfast fasteners	Insulation fastener/Plate	Various	Construction Fasteners, Inc.
3.	Tru-Fast Fastener	Insulation fastener/Plate	Various	Tru-Fast
4.	HD Insul-Fixx Fastener	Insulation fastener/Plate	Various	SFS/Stradler
5.	Insul-Fixx Fastener	Insulation fastener/Plate	Various	SFS/Stradler
6.	Rawl #14, #15 fasteners	Insulation fastener/Plate	Various	The Rawplug Company Inc.
7.	OlyBond 500	Insulation adhesive	Various	Olympic Manufacturing Group, Inc.
8.	Insta-Stik	Insulation adhesive	Various	Flexible Products
9.	Pliodeck	Insulation adhesive		Ashland Specialty



**TRADE NAMES OF PRODUCTS MANUFACTURED BY OTHERS:**

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>	<u>Manufacturer</u>
Al MB Aluminum Roof Coating		TAS 121	Aluminum roof coating	Grundy Industries
Grundy 20 F		TAS 121	Asphalt emulsion	Grundy Industries
Henry 220		TAS 121	Roof coating	Henry Co.
Karnak 97		TAS 121	Roof coating	Karnak
Asphalt Emulsion		TAS 121	Asphalt emulsion	Pure Asphalt
GlassBase	36' x 108' weight: 72 lb.	ASTM D 4601	Type II fiberglass base sheet	Johns Manville.
PermaPly 28	36" x 324 sq. ft.	ASTM D 4601	Glass fiber, asphalt impregnated base sheet	Johns Manville
PermaPly VI	36" x 540 sq. ft.	ASTM D 2178	Type VI asphalt impregnated glass felt	Johns Manville
PermaPly IV	36" x 540 sq. ft.	ASTM D 2178	Type IV asphalt impregnated glass felt	Johns Manville

**EVIDENCE SUBMITTED**

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Exterior Research & Design, LLC	10720.10.97-1	Uplift TAS 114	10/17/97
Factory Mutual Research Corporation	2W3A6.AM	Class 4470	02/21/97
	2Y3A2.AM		
	2B5A5.AM	Class 4470	05/14/97
	1D7A4.AM	Class 4470	11/9/98 03/1/99
	2B5A7.AM		
	J13007274	Class 4470	2/7/01
	J13003642		
IRT-ARCON	PC03-001	Uplift TAS 114-95	01/17/03
	PC03-002		
Factory Mutual	J.I. 0X2A3.AM	Class 4470	01/13/93
	J13002688		12/11/01
	J13014452		07/30/02



## EVIDENCE SUBMITTED

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Underwriters Laboratories	R13327	Fire Classification	11/23/92
Factory Mutual Research Corporation	JI 1Y7A5.AM	Windstorm Classification	01/03/96
Factory Mutual Research Corporation	JI 3002644	Windstorm Classification	12/22/99
Factory Mutual Research Corporation	JI 3017037	Windstorm Classification	03/10/05
Factory Mutual Research Corporation	JI 3014692	Windstorm Classification	12/20/02
Factory Mutual Research Corporation	JI 3008869	Windstorm Classification	03/19/01
Factory Mutual Research Corporation	ID 01669-267 ID 1039-267	Product Name Change Product Name Change	10/26/05 07/08/04
Factory Mutual Research Corporation	JI 3009502	Windstorm Classification	12/21/00
Factory Mutual Research Corporation	JI 2D5A9.AM	Windstorm Classification	06/22/99
Certified Testing Lab	CTLA 1020W	HVHZ-Hurricane Shelter	03/27/03
Factory Mutual Research Corporation	JI 3023458	Windstorm Classification	12/30/05
Atlantic & Caribbean Roof Consulting	ACRC 06-028	Windstorm Classification	07/26/06
Factory Mutual Research Corporation	JI 3009125	Windstorm Classification	07/30/01
Factory Mutual Research Corporation	JI 3011494	Windstorm Classification	08/22/01
Factory Mutual Research Corporation	JI 3028039	Windstorm Classification	09/11/06

## APPROVED ASSEMBLIES

**Membrane Type:** APP

**Deck Type 2I:** Steel, Insulated

**Deck Description:** 18-22 ga. steel

**System Type B(1):** Base layer of insulation mechanically fastened, top layer adhered with approved asphalt or Permastic, Permastic IA, or Permastic IA Strips.

**All General and System Limitations apply.**

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Derbiboard, Derbiboard CA, Derbiboard Composite, Multi-Max</b> Minimum 1.5" thick	1, 2, 3	1:3 ft <sup>2</sup>
<b>AC-Foam I</b> Minimum 1.3" thick	1, 2, 3	1:3 ft <sup>2</sup>
<b>AC-Foam II</b> Minimum 1.3" thick	1, 2, 3	1:3 ft <sup>2</sup>
<b>E"NRG"Y-3, PSI-25</b> Minimum 1.4" thick	1, 2, 3	1:3 ft <sup>2</sup>

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

<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Derbiboard, Derbiboard CA, Derbiboard Composite, AC-Foam II, AC-Foam III</b> Minimum 1.5" thick	N/A	N/A
<b>Perlite Insulation</b> Minimum 3/4" thick	N/A	N/A
<b>High Density Wood Fiber</b> Minimum 1/2" thick	N/A	N/A
<b>Fiberglas</b> Minimum 15/16" thick	N/A	N/A

**Note:** Apply top layer of insulation in a full mopping of any approved mopping asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>. 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, in Permastic, Permastic IA, or Permastic IA Strips applied 12" o.c.

**Base Sheet:** One ply of Perma Ply IV, VI, PRS Ply IV, PRS Ply VI, or #28 or Performance Modified Base Sheet, PRS Glass Base, Permax Ultra Base, Derbibase or Derbibase Ultra, or Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq.  $\pm$  15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.

**Ply Sheet:** (Optional) One or two plies of Perma Ply IV, VI, PRS Ply IV, PRS Ply VI, Permax Ultra Base or #28, Performance Modified Base Sheet, PRS Glass Base, Derbibase or Derbibase Ultra, Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq.  $\pm$  15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.

**Membrane:** Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, Derbigum/Derbicolor GP-FR or Derbigum/Derbicolor XPS-FR, PRS 190, PRS 190 Mineral, DerbiBrite, or Permax A-Economy, Permax A-Economy Mineral, Bitutak MB, Bitutak MB Mineral torch applied or Permastic adhesive at an application rate of 15. to 2gal./sq. to base sheet.

**Surfacing:** Install one of the following (except over Derbigum GP-FR, Derbigum XPS-FR, Derbicolor GP-FR, Derbicolor XPS-FR, or Derbibrite):

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.  $\pm$  15%.
2. APOC 400 applied at 1.3 gal./sq. Karnak 97, Grundy al MB, Permalume aluminum, Permalume Premium or Perma-Cool, 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 2I:** Steel, Insulated

**Deck Description:** 18-22 ga. steel

**System Type B(2):** Base layer of insulation mechanically fastened, top layer adhered with Insta-Stik.

**All General and System Limitations apply.**  
**One or more layers of any of the following insulations.**

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Derbiboard, Derbiboard CA, Derbiboard Composite, Multi-Max</b> Minimum 1.5" thick	1, 2, 3	1:3 ft <sup>2</sup>
<b>AC-Foam I, AC-Foam II</b> Minimum 1.3" thick	1, 2, 3	1:3 ft <sup>2</sup>
<b>E"NRG"Y-3, PSI-25</b> Minimum 1.4" thick	1, 2, 3	1:3 ft <sup>2</sup>

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

<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Derbiboard, Derbiboard CA, Derbiboard Composite, Multi-Max</b> Minimum 1.5" thick	8	N/A
<b>AC-Foam I, AC-Foam II</b> Minimum 1.3" thick	8	N/A
<b>Perlite Insulation</b> Minimum 3/4" thick	8	N/A
<b>High Density Wood Fiber</b> Minimum 1/2" thick	8	N/A
<b>Fiberglas</b> Minimum 15/16" thick	8	N/A
<b>Securock</b> Minimum 1/4" thick	8	N/A

**Note:** Apply top layer of insulation secured to the base layer of insulation with 3/4" to 1" beads of Insta-Stik Roofing Adhesive in 12" on center rows.

**Base Sheet:** One ply of Perma Ply IV, VI, PRS Ply IV, PRS Ply VI, Performance Modified Base Sheet, PRS Glass Base, Permax Ultra Base, Deribase or Deribase Ultra, or Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq.  $\pm$  15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.

**Ply Sheet:** (Optional) One or two plies of Perma Ply IV, VI, PRS Ply IV, PRS Ply VI, Permax Ultra Base, Performance Modified Base Sheet, PRS Glass Base, Deribase or Deribase Ultra, Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq.  $\pm$  15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.

**Membrane:** Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, Derbigum/Derbicolor GP-FR or Derbigum/Derbicolor XPS-FR, PRS 190, PRS 190 Mineral, DerbiBrite, or Permax A-Economy, Permax A-Economy Mineral, Bitutak MB, Bitutak MB Mineral torch applied or Permastic adhesive at an application rate of 15. to 2gal./sq. to base sheet.

**Surfacing:** Install one of the following (except over Derbigum GP-FR, Derbigum XPS-FR, Derbicolor GP-FR, Derbicolor XPS-FR, or Derbibrite):

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.  $\pm$  15%.
2. APOC 400 applied at 1.3 gal./sq. Karnak 97, Grundy al MB, Permalume aluminum, Permalume Premium or Perma-Cool, 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 2I:** Steel, Insulated

**Deck Description:** 18-22 ga. steel

**System Type B(3):** Base layer of insulation mechanically fastened, top layer adhered with Oly-Bond 500.

All General and System Limitations apply.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
<b>Derbiboard, Derbiboard CA, Derbiboard Composite, Multi-Max</b> Minimum 1.5" thick	1, 2, 3	1:3 ft <sup>2</sup>
<b>AC-Foam I, AC-Foam II</b> Minimum 1.3" thick	1, 2, 3	1:3 ft <sup>2</sup>
<b>E"NRG"Y-3, PSI-25</b> Minimum 1.4" thick	1, 2, 3	1:3 ft <sup>2</sup>

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

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
<b>Derbiboard, Derbiboard CA, Derbiboard Composite, Multi-Max</b> Minimum 1.5" thick	7	N/A
<b>AC-Foam I, AC-Foam II</b> Minimum 1.5" thick	7	N/A
<b>Perlite Insulation</b> Minimum 3/4" thick	7	N/A
<b>High Density Wood Fiber</b> Minimum 1/2" thick	7	N/A
<b>Fiberglas</b> Minimum 15/16" thick	7	N/A
<b>Securock</b> Minimum 1/4" thick	7	N/A



**Note: Apply top layer of insulation adhered to the mechanically attached base layer of insulation with Oly-Bond 500 adhesive applied at the rate of 1 gallon per square.**

**Base Sheet:** One ply of Perma Ply IV, VI, PRS Ply IV, PRS Ply VI, Performance Modified Base Sheet, PRS Glass Base, Permax Ultra Base, Derbibase or Derbibase Ultra, or Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq.  $\pm$  15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.

**Ply Sheet:** (Optional) One or two plies of Perma Ply IV, VI, PRS Ply IV, PRS Ply VI, Permax Ultra Base, Performance Modified Base Sheet, PRS Glass Base, Derbibase or Derbibase Ultra, Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq.  $\pm$  15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.

**Membrane:** Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, Derbigum/Derbicolor GP-FR or Derbigum/Derbicolor XPS-FR, PRS 190, PRS 190 Mineral, DerbiBrite, or Permax A-Economy, Permax A-Economy Mineral, Bitutak MB, Bitutak MB Mineral torch applied or Permastic adhesive at an application rate of 15. to 2gal./sq. to base sheet.

**Surfacing:** Install one of the following (except over Derbigum GP-FR, Derbigum XPS-FR, Derbicolor GP-FR, Derbicolor XPS-FR, or DerbiBrite):

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.  $\pm$  15%.
2. APOC 400 applied at 1.3 gal./sq. Karnak 97, Grundy al MB, Permalume aluminum, Permalume Premium or Perma-Cool, 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 2I:** Steel, Insulated

**Deck Description:** 22 ga. steel

**System Type B(4):** Base layer of insulation mechanically fastened.

**All General and System Limitations apply.**  
**One or more layers of any of the following insulations.**

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Derbiboard, Derbiboard CA, Derbiboard Composite, Multi-Max</b> Minimum 1.5" thick	1, 2, 3	1:3 ft <sup>2</sup>
<b>AC-Foam II, AC-Foam III</b> Minimum 1.3" thick	1, 2, 3	1:3 ft <sup>2</sup>
<b>E"NRG"Y-3, PSI-25</b> Minimum 1.4" thick	1, 2, 3	1:3 ft <sup>2</sup>
<b>Densdeck Prime</b> Minimum 1/2" thick	1, 2, 3	1:3 ft <sup>2</sup>

**Base Sheet:** One ply of Perma Ply IV, VI, PRS Ply IV, PRS Ply VI, Performance Modified Base Sheet, PRS Glass Base, Permax Ultra Base, Derbibase or Derbibase Ultra, Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.

**Ply Sheet:** (Optional) One or two plies of Perma Ply IV, VI, PRS Ply IV, PRS Ply VI, Performance Modified Base Sheet, PRS Glass Base, Permax Ultra Base, Derbibase or Derbibase Ultra, Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.

**Membrane:** Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, Derbigum/Derbicolor GP-FR or Derbigum/Derbicolor XPS-FR, PRS 190, PRS 190 mineral, DerbiBrite, or Permax A-Economy, Permax A-Economy Mineral, Bitutak MB, Bitutak MB Mineral torch applied or Permastic adhesive at an application rate of 15. to 2gal./sq. to base sheet.

Surfacing:

Install one of the following (except over Derbigum GP-FR, Derbigum XPS-FR, Derbicolor GP-FR, Derbicolor XPS-FR, or Derbibrite):

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.  $\pm$  15%.
2. APOC 400 applied at 1.3 gal./sq. Karnak 97, Grundy al MB, Permalume aluminum, Permalume Premium or Perma-Cool, 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:

-67.5 psf. See General Limitation #7.

**Membrane Type:** APP

**Deck Type 2I:** Steel, Insulated

**Deck Description:** 18-22 ga. steel

**System Type C(1):** All layers of insulation simultaneously attached.  
**All General and System Limitations apply.**

One or more layers of any of the following insulations.

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Derbiboard, Derbiboard CA, Derbiboard Composite, Multi-Max</b> Minimum 1.5" thick	N/A	N/A
<b>AC-Foam I, AC-Foam II</b> Minimum 1.3" thick	N/A	N/A
<b>E"NRG"Y-3, PSI-25</b> Minimum 1/4" thick	N/A	N/A

**Note:** All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners per board shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Derbiboard, Derbiboard CA, Derbiboard Composite, Multi-Max</b> Minimum 1.5" thick	1, 2, 3	1:3 ft <sup>2</sup>
<b>AC-Foam I, AC-Foam II</b> Minimum 1.3" thick	1, 2, 3	1:3 ft <sup>2</sup>
<b>Perlite Insulation</b> Minimum 3/4" thick	1, 2, 3	1:1.6 ft <sup>2</sup>
<b>High Density Wood Fiber</b> Minimum 1/2" thick	1, 2, 3	1:4 ft <sup>2</sup>
<b>DensDeck Prime</b> Minimum 1/4" thick	1, 2, 3	1:4 ft <sup>2</sup>
<b>Fiberglas</b> Minimum 15/16" thick	1, 2, 3	1:3 ft <sup>2</sup>
<b>Securock</b> Minimum 1/4" thick	1, 2, 3	1:4 ft <sup>2</sup>

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

**Base Sheet:** One ply of Perma Ply IV, VI, PRS Ply IV, PRS Ply VI, Performance Modified Base Sheet, PRS Glass Base, Permax Ultra Base, Deribase or Deribase Ultra or Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq.  $\pm$  15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.

**Ply Sheet:** (Optional) One or two plies of Perma Ply IV, VI, PRS Ply IV, PRS Ply VI, Permax Ultra Base, Deribase, Derbigum/Derbicolor GP or XPS, Performance Modified Base Sheet, PRS Glass Base, ply sheets, or Deribase Ultra, Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq.  $\pm$  15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.

**Membrane:** Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, Derbigum/Derbicolor GP-FR or Derbigum/Derbicolor XPS-FR, PRS 190, PRS 190 Mineral, DerbiBrite, or Permax A-Economy, or Permax A-Economy Mineral Bitutak MB, Bitutak MB Mineral torch applied or in Permastic adhesive to base sheet.

**Surfacing:** Install one of the following surfacing(s) (except over Derbigum GP/Derbigum XPS-FR, Derbicolor GP/Derbicolor XPS-FR, or DerbiBrite):

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.  $\pm$  15%.
2. APOC 400 applied at 1.3 gal./sq. Karnak 97, Grundy al MB, Permalume aluminum, Permalume Premium or Perma-Cool 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:** SBS

**Deck Type 2I:** Steel, Insulated

**Deck Description:** 18-22 ga. steel

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

**All General and System Limitations apply.**

One or more layers of any of the following insulations.

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Derbiboard, Derbiboard CA, Derbiboard Composite, Multi-Max</b> Minimum 1.5" thick	N/A	N/A
<b>AC-Foam I, AC-Foam II</b> Minimum 1.3" thick	N/A	N/A
<b>E"NRG"Y-3, PSI-25</b> Minimum 1/4" thick	N/A	N/A

**Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners per board shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Derbihoard, Derbiboard CA, Derbiboard Composite, Multi-Max</b> Minimum 1.5" thick	1, 2, 3	1:3 ft <sup>2</sup>
<b>AC-Foam II, AC-Foam III</b> Minimum 1.5" thick	1, 2, 3	1:3 ft <sup>2</sup>
<b>Perlite Insulation</b> Minimum 3/4" thick	1, 2, 3	1:1.6 ft <sup>2</sup>
<b>High Density Wood Fiber</b> Minimum 1/2" thick	1, 2, 3	1:4 ft <sup>2</sup>
<b>DensDeck Prime</b> Minimum 1/4" thick	1, 2, 3	1:4 ft <sup>2</sup>
<b>Securock</b> Minimum 1/4" thick	1, 2, 3	1:4 ft <sup>2</sup>

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

**Base Sheet:** One ply GAFGLAS # 75, PRS Glass Base, PRS Modified base, PRS Ply IV, PRS Ply VI, Owens Corning Fiberglas base sheet, Permax Ultra Base, Derbibase or Derbibase Ultra adhered to the insulated substrate with approved mopping asphalt at an application rate of 25 lb./sq.  $\pm$  15% or Permastic adhesive at an application rate of 1.5 to 2gal/sq.

**Ply Sheet:** Derbigum GP, Derbigum XPS, Derbibase or Derbibase Ultra, PRS Ply IV, PRS Ply VI, PRS Glass base sheet, Permax Ultra Base adhered to the insulated substrate with approved mopping asphalt at an application rate of 25 lb./sq.  $\pm$  15% or Permastic adhesive at an application rate of 1.5 to 2gal/sq.

**Membrane:** One ply Permax B-FR, Permax S, Permax S-FR, adhered with approved mopping asphalt at an application rate of 25 lb./sq.  $\pm$  15% or in Permastic adhesive at an application rate of 1.5 to 2gal./sq.

**Surfacing:** Install one of the following (except over Permax B-FR, Permax S, Permax S-FR):

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.  $\pm$  15%.
2. APOC 400 applied at 1.3 gal./sq. Karnak 97, Grundy al MB, Permalume aluminum, Permalume Premium or Perma-Cool 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 2I:** Steel, Insulated

**Deck Description:** 18-22 ga. steel

**System Type D(1):** All layers of insulation and base sheet simultaneously attached.

**All General and System Limitations apply.**

One or more layers of any of the following insulations.

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Derbiboard, Derbiboard CA, Derbiboard Composite, Multi-Max</b> Minimum 1.5" thick	N/A	N/A
<b>AC-Foam I, AC-Foam II</b> Minimum 1.3" thick	N/A	N/A
<b>E"NRG"Y-3, PSI-25</b> Minimum 1.4" thick	N/A	N/A
<b>Fiberglas</b> Minimum 15/16" thick	N/A	N/A
<b>Perlite Insulation</b> Minimum 3/4" thick	N/A	N/A
<b>High Density Wood Fiber</b> Minimum 1/2" thick	N/A	N/A
<b>Dens Deck Prime</b> Minimum 1/4" thick	N/A	N/A
<b>Securock</b> Minimum 1/4" thick	N/A	N/A

**Note: 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 4ft., and four fasteners for any insulation board having no dimension greater than 8ft.**

**Base Sheet:** Two plies of Perma Ply IV, VI, PRS Ply IV, PRS Ply VI, Performance Modified Base, PRS Glass Base Sheet, Permax Ultra Base, Derbibase, or Derbibase Ultra or Derbigum GP mechanically fastened to the deck through the insulation as detailed below.

Fastening: Olympic Standard, Perlok or Tru-Fast MP-3 insulation plates and fasteners at 12 in o.c. at the min. 4" side lap, 18" o.c. and two rows in the center of the sheet 12 in from each base sheet side lap.

Ply Sheet: Derbigum GP, Derbigum XPS, Derbibase or Derbibase Ultra.

Membrane: Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, or Derbigum/Derbicolor GP-FR or Derbigum/Derbicolor XPS-FR, PRS 190, PRS 190 Mineral, DerbiBrite, or Permax A-Economy, Permax A-Economy Mineral, Bitutak MB, or Bitutak MB Mineral torch applied or in Permastic adhesive at an application rate of 1.5 to 2 gallons per square to base sheet.

Surfacing: Install one of the following (except over Derbigum GP-FR, Derbigum XPS-FR, Derbicolor GP-FR or Derbicolor XPS-FR or Derbibrite):

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.  $\pm$  15%.
2. APOC 400 applied at 1.3 gal./sq. Karnak 97, Grundy al MB, Permalume, Permalume Premium, or Perma-Cool 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 2I:** Steel, Insulated

**Deck Description:** 18-22 ga. steel

**System Type D(2):** All layers of insulation and base sheet simultaneously attached.

**All General and System Limitations apply.**

One or more layers of any of the following insulations.

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Derbiboard, Derbiboard CA, Derbiboard Composite, Multi-Max</b> Minimum 1.5" thick	N/A	N/A
<b>AC-Foam I, AC-Foam II, AC-Foam III</b> Minimum 1.3" thick	N/A	N/A
<b>E"NRG"Y-3, PSI-25</b> Minimum 1.4" thick	N/A	N/A
<b>Perlite Insulation</b> Minimum 3/4" thick	N/A	N/A
<b>High Density Wood Fiber</b> Minimum 1/2" thick	N/A	N/A
<b>Dens Deck Prime</b> Minimum 1/4" thick	N/A	N/A
<b>Securock</b> Minimum 1/4" thick	N/A	N/A

**Note: 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.**

**Base Sheet:** One ply Derbigum GP mechanically fastened to the deck through the insulation as detailed below.

**Fastening:** Placed primed batten bars at the seams and one in the field of the sheet spaced 18 inches on center and fastened 6" on center with Olympic or Perlok screws into the steel deck.

**Ply Sheet:** (Optional) Derbigum GP, Derbigum XPS, Derbibase or Derbibase Ultra.

**Membrane:** Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, or Derbigum/Derbicolor GP-FR or Derbigum/Derbicolor XPS-FR, PRS 190, PRS 190 Mineral, DerbiBrite, or Permax A-Economy, Permax A-Economy Mineral, Bitutak MB, or Bitutak MB Mineral torch applied.



Surfacing:

Install one of the following (except over Derbigum GP-FR, Derbigum XPS-FR, Derbicolor GP-FR or Derbicolor XPS-FR or Derbibrite):

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.  $\pm$  15%.
2. APOC 400 applied at 1.3 gal./sq. Karnak 97, Grundy al MB, Permalume, Permalume Premium, or Perma-Cool 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:** SBS

**Deck Type 2I:** Steel, Insulated

**Deck Description:** 18-22 ga. steel

**System Type D(2):** All layers of insulation simultaneously attached.

**All General and System Limitations apply.**

One or more layers of any of the following insulations.

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Derbiboard, Derbiboard CA, Derbiboard Composite, Multi-Max</b> Minimum 1.5" thick	N/A	N/A
<b>AC-Foam I, AC-Foam II, AC-Foam III</b> Minimum 1.3" thick	N/A	N/A
<b>E"NRG"Y-3, PSI-25</b> Minimum 1.4" thick	N/A	N/A
<b>Perlite Insulation</b> Minimum 3/4" thick	N/A	N/A
<b>High Density Wood Fiber</b> Minimum 1/2" thick	N/A	N/A
<b>Dens Deck Prime</b> Minimum 1/4" thick	N/A	N/A
<b>Securock</b> Minimum 1/4" thick	N/A	N/A

**Note: All layers of insulation and base sheet shall be simultaneously attached. Insulation panels listed are minimum sizes and dimensions. See base sheet below for fasteners and density. Refer to Dade County Protocol PA 117 for insulation attachment requirements.**

- Base Sheet:** PRS Glass Base Sheet, Permax ultra Base, Owens Corning Fiberglas base sheet, Derbibase, Derbibase Ultra fastened to the deck through the insulation as detailed below.
- Fastening:** Fasten base sheet with Olympic, Perlok, or Tru-Fast fasteners and metal plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet 18" o.c.
- Ply Sheet:** Derbigum GP, Derbigum XPS, Derbibase or Derbibase Ultra.
- Membrane:** One ply of Permax B-Economy, Permax S, Permax S-FR torch applied or adhered with approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.

Surfacing: Install one of the following (except over Permax B-FR or Permax S-FR):

1. 400 lbs. gravel adhered in hot asphalt.
2. Grundy al MB, Permalume, Permalume Premium or Perma-Cool applied at a rate of 1-1/2 gal./sq., Karnak 97 applied at a rate of 2 gal./sq.
3. A two part surfacing consisting of a base coat of Thermo 202 at 2 gal./sq. and a final coat of Thermo 101.
4. A two part surfacing consisting of a base coat of Thermo 202 at 2 gal./sq. with a fine gravel embedded in the wet coating and a final surfacing of Thermo # 101 at the manufacturer's specified installation rate.

Maximum Design

Pressure: -45 psf. See General Limitation #7.

#### **STEEL DECK SYSTEM LIMITATIONS:**

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine 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.

## 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. All membranes or packaging shall bear the imprint or identifiable marking of the manufacturer's name or logo and the following statement: "Miami-Dade County Product Control Approved" or the Miami-Dade County Product Control Seal as shown below.



3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9B-72 of the Florida Administrative Code.

END OF THIS ACCEPTANCE