



DEPARTMENT OF PERMITTING, ENVIRONMENT, AND REGULATORY AFFAIRS (PERA)  
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION  
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## NOTICE OF ACCEPTANCE (NOA)

**Derbigum Americas, 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 and accepted by Miami-Dade County PERA - 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. PERA 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 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 renews NOA# 08-0229.15 and consists of pages 1 through 22.  
The submitted documentation was reviewed by Alex Tigera.

NOA No 11-0722.04  
Expiration Date: 08/23/12  
Approval Date: 11/24/11  
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## ROOFING ASSEMBLY APPROVAL

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

### 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>
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**

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
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.
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.
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-gallon 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-gallon tanks		Asphalt-based adhesive formulated especially for adhering base sheets and Derbiboard insulation to concrete, non-nailable substrates or polyisocyanurate.



**APPROVED INSULATIONS:**

**TABLE 2**

<u>Product</u>	<u>Dimension</u>	<u>Test Specification</u>	<u>Product Description</u>	<u>Manufacturer</u>
ACFoam II	various	TAS 110	Polyisocyanurate foam insulation	Atlas Energy Products
ACFoam III	various	TAS 110	Polyisocyanurate foam insulation	Atlas Energy Products
Dens Deck®, Dens Deck Prime™			Water resistant gypsum board	Georgia Pacific Gypsum Corp.
Derbiboard	various	TAS 110	Polyisocyanurate foam insulation	Derbigum Americas, Inc.
Derbiboard CA	various	TAS 110	Polyisocyanurate foam insulation	Derbigum Americas, Inc.
Derbiboard Composite	various	TAS 110	Polyisocyanurate foam insulation	Derbigum Americas, Inc.
EnergyGuard™ PolyIso, RA	various	TAS 110	Polyisocyanurate foam insulation	GAF Materials Corp.
EnergyGuard™ Composite, RA	various	TAS 110	Polyisocyanurate/wood fiberboard or perlite composite	GAF Materials Corp.
E'NRG'Y-3, Plus UltraGuard Gold, PSI-25	various	TAS 110	Polyisocyanurate foam insulation	Johns Manville
ISO 95+	various	TAS 110	Polyisocyanurate/Perlite rigid insulation	Firestone Building Products, Inc.
ISO 95+ Composite	various	TAS 110	Polyisocyanurate/Perlite rigid insulation	Firestone Building Products, Inc.
High Density Wood Fiberboard	various	TAS 110	Wood fiber insulation board	Generic
Multi-Max-3, Multi-Max FA-3	various	TAS 110	Polyisocyanurate foam insulation	Rmax Inc.
Perlite Insulation	various	TAS 110	Perlite insulation board	Generic
Securock	various	TAS 110	Water resistant gypsum board	USG
Structodeck	various	TAS 110	Woodfiber insulation board	Masonite
Type X Gypsum	various	TAS 110	Fire resistant rates gypsum	Generic
Wood Fiber	various	TAS 110	Wood Fiber Insulation Board	generic



**APPROVED FASTENERS:**

**TABLE 3**

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
1.	Perlok #12 Standard & Perlok HD Roofing Fastener	Base sheet fastening assembly	Various	OMG, Inc.
2.	Dekfast #12, Deckfast Plate	Insulation fastener/Plate	Various	SFS Intec.
3.	Tru-Fast HD (#14) Fastener	Insulation fastener/Plate	Various	Tru-Fast
4.	OlyBond 500	Insulation adhesive	Various	OMG, Inc.
5.	Insta-Stik	Insulation adhesive	Various	Flexible Products
6.	Pliodeck	Insulation adhesive		Ashland Specialty

**APPROVED SURFACING:**

**TABLE 4**

<u>Product</u>	<u>Test Specification</u>	<u>Product Description</u>	<u>Manufacturer</u>
APOC 302	TAS 121	Roof coating	APOC, Subsidiary of Gardner
APOC 400	TAS 121	Roof coating	APOC, Subsidiary of Gardner
Karnak #97 AF	TAS 121	Roof coating	Karnak

**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
	2B5A7.AM		03/1/99
IRT-ARCON	J13007274	Class 4470	2/7/01
	J1 3003642		
	J1 3001472		
IRT-ARCON	PC03-001	Uplift TAS 114-95	01/17/03
	PC03-002		



## EVIDENCE SUBMITTED

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Factory Mutual	J.I. 0X2A3.AM	Class 4470	01/13/93
	JI 3002688		12/11/01
	JI 3014452		07/30/02
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	Product Name Change	10/26/05
	ID 1039-267	Product Name Change	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, Permastic or Permastic IA.

All General and System limitations apply.

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

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
Derbiboard, Derbiboard CA, Derbiboard composite, AC-Foam II, AC-Foam III Minimum 1.5” thick	N/A	N/A
Perlite Insulation Minimum ¾” thick	N/A	N/A
High Density Wood Fiber Minimum ½” 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, or Permastic IA.

**Base Sheet:** One ply of PRS Glass Ply IV, PRS Glass Ply VI, or PRS Modified Base, PRS Glass 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. ± 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.



- Ply Sheet:** (Optional) One or two plies of PRS Glass Ply IV, PRS Glass Ply VI, PRS Modified Base, 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, DerbiBrite, 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 or Karnak #97 AF at an application rate of 1.5 gal./sq. APOC # 302 applied at an application rate of 3 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.**

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

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
Derbiboard, Derbiboard CA, Derbiboard Composite, Multi-Max Minimum 1.5" thick	5	N/A
AC-Foam II, AC-Foam III Minimum 1.3" thick	5	N/A
Perlite Insulation Minimum ¾" thick	5	N/A
High Density Wood Fiber Minimum ½" thick	5	N/A
Securock Minimum ¼" thick	5	N/A

**Note:** Apply top layer of insulation secured to the base layer of insulation with ¾" to 1" beads of Insta-Stik Roofing Adhesive in 12" on center rows.



- Base Sheet:** One ply of PRS Glass Ply IV, PRS Glass Ply VI, or PRS Modified Base, PRS Glass 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 PRS Glass Ply IV, PRS Glass Ply VI, PRS Modified Base, 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, DerbiBrite, 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:
3. 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%.
  4. APOC 400 applied at 1.3 gal./sq or Karnak #97 AF at an application rate of 1.5 gal./sq. APOC # 302 applied at an application rate of 3 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.**

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

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
Derbiboard, Derbiboard CA, Derbiboard Composite, Multi-Max Minimum 1.5” thick	5	N/A
AC-Foam II, AC-Foam III Minimum 1.3” thick	5	N/A
Perlite Insulation Minimum ¾” thick	5	N/A
High Density Wood Fiber Minimum ½” thick	5	N/A
Securock Minimum ¼” thick	5	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 PRS Glass Ply IV, PRS Glass Ply VI, or PRS Modified Base, PRS Glass 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. ± 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.



- Ply Sheet:** (Optional) One or two plies of PRS Glass Ply IV, PRS Glass Ply VI, PRS Modified Base, 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, DerbiBrite, 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 or Karnak #97 AF at an application rate of 1.5 gal./sq. APOC # 302 applied at an application rate of 3 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(4):** Base layer of insulation mechanically fastened.

**All General and System limitations apply.**

**One or more layers of any of the following insulations.**

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
<b>Derbiboard, Derbiboard CA, Derbiboard composite, Multi-Max-3 Minimum 1.5” thick</b>	<b>1, 2, 3</b>	<b>1:3ft<sup>2</sup></b>
<b>AC-Foam II, AC-Foam III Minimum 1.3” thick</b>	<b>1, 2, 3</b>	<b>1:3ft<sup>2</sup></b>
<b>E"NRG"Y-2, PSI-25 Minimum 1.4” thick</b>	<b>1, 2, 3</b>	<b>1:3ft<sup>2</sup></b>
<b>Dens Deck Prime Minimum ½” thick</b>	<b>1, 2, 3</b>	<b>1:3ft<sup>2</sup></b>

**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).

**Base Sheet:** One ply of PRS Glass Ply IV, PRS Glass Ply VI, or PRS Modified Base, PRS Glass 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. ± 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.

**Ply Sheet:** (Optional) One or two plies of PRS Glass Ply IV, PRS Glass Ply VI, PRS Modified Base, 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. ± 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, DerbiBrite, 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 or Karnak #97 AF at an application rate of 1.5 gal./sq. APOC # 302 applied at an application rate of 3 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
Derbiboard, Derbiboard CA, Derbiboard composite, Multi-Max-3 Minimum 1.5” thick	N/A	N/A
AC-Foam II, AC-Foam III Minimum 1.3” thick	N/A	N/A
E"NRG"Y-2, PSI-25 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.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
Derbiboard, Derbiboard CA, Derbiboard Composite, Multi-Max Minimum 1.5” thick	1, 2, 3	1:3ft <sup>2</sup>
AC-Foam II, AC-Foam III Minimum 1.3” thick	1, 2, 3	1:3ft <sup>2</sup>
Perlite Insulation Minimum ¾” thick	1, 2, 3	1:1.6 ft <sup>2</sup>
High Density Wood Fiber Minimum ½” thick	1, 2, 3	1:4ft <sup>2</sup>
Dens Deck Prime Minimum ¼” thick	1, 2, 3	1:4ft <sup>2</sup>
Securock Minimum ¼” thick	1, 2, 3	1:4ft <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 PRS Glass Ply IV, PRS Glass Ply VI, or PRS Modified Base, PRS Glass 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 PRS Glass Ply IV, PRS Glass Ply VI, PRS Modified Base, 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, DerbiBrite, 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 or Karnak #97 AF at an application rate of 1.5 gal./sq. APOC # 302 applied at an application rate of 3 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.**

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
<b>Derbiboard, Derbiboard CA, Derbiboard composite, Multi-Max-3 Minimum 1.5" thick</b>	N/A	N/A
<b>AC-Foam II, AC-Foam III Minimum 1.3" thick</b>	N/A	N/A
<b>E"NRG"Y-2, PSI-25 Minimum 1.4" thick</b>	N/A	N/A
<b>Perlite Insulation Minimum ¾" thick</b>	N/A	N/A
<b>High Density Wood Fiber Minimum ½" thick</b>	N/A	N/A
<b>Dens Deck Prime Minimum ¼" thick</b>	N/A	N/A
<b>Securock Minimum ¼" thick</b>	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 PRS Glass Ply IV, PRS Glass Ply VI, or PRS Modified Base, PRS Glass 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, Derbigum/Derbicolor GP/FR or Derbigum/Derbicolor XPS/FR, DerbiBrite, 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 or Karnak #97 AF at an application rate of 1.5 gal./sq. APOC # 302 applied at an application rate of 3 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.**

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
<b>Derbiboard, Derbiboard CA, Derbiboard composite, Multi-Max-3 Minimum 1.5” thick</b>	N/A	N/A
<b>AC-Foam II, AC-Foam III Minimum 1.3” thick</b>	N/A	N/A
<b>E"NRG"Y-2, PSI-25 Minimum 1.4” thick</b>	N/A	N/A
<b>Perlite Insulation Minimum ¾” thick</b>	N/A	N/A
<b>High Density Wood Fiber Minimum ½” thick</b>	N/A	N/A
<b>Dens Deck Prime Minimum ¼” thick</b>	N/A	N/A
<b>Securock Minimum ¼” thick</b>	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, Derbigum/Derbicolor GP/FR or Derbigum/Derbicolor XPS/FR, DerbiBrite, Bitutak MB, Bitutak MB Mineral torch applied.



**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 or Karnak #97 AF at an application rate of 1.5 gal./sq. APOC # 302 applied at an application rate of 3 gal./sq

**Maximum Design Pressure:**

-105 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. 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 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 9N-3 of the Florida Administrative Code.

**END OF THIS ACCEPTANCE**