



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

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION  
11805 SW 26 Street, Room 208  
Miami, Florida 33175-2474  
T (786) 315-2590 F (786) 315-2599  
[www.miamidade.gov/economy](http://www.miamidade.gov/economy)

**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 RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

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

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

**DESCRIPTION: Performance Modified Roof Systems over 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 renews NOA# 14-0127.08 and consists of pages 1 through 30.  
The submitted documentation was reviewed by Alex Tigera.



NOA No 14-0627.10  
Expiration Date: 08/23/17  
Approval Date: 09/10/15  
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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>	- 172.5 psf
<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.
Derbicolor P-FR	33'4" x 39.4"; roll weight: 90 lbs.	ASTM D 6223	Mineral surfaced fire resistant APP 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>
Derbipure	33'4" x 39.4" Weight: 90 lbs	ASTM D 6223	Bitumen free waterproofing membrane reinforced with fiberglass/polyester with acrylic coating.
Derbibrite	33'4" x 39.4" Weight: 90 lbs	ASTM D 6223	Modified bitumen membrane reinforced with fiberglass/polyester with acrylic coating.
Derbibase HV	49'6" x 39.4" Weight: 90 lbs	ASTM D 5147	APP modified bitumen membrane reinforced with polyester mat.
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.
Derbicolor P	39.4" x 33' roll weight: 103 lbs.	ASTM D 6222	Mineral surfaced APP polymer modified bitumen, polyester reinforced membrane.
Derbigum P	33' x 39.4 roll weight: 89 lbs	ASTM D 6222	APP polymer modified bitumen polyester reinforced membrane.
Derbibase 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 Derbi-board insulation to concrete, non-nailable substrates or polyisocyanurate.



**APPROVED INSULATIONS:**

**TABLE 2**

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>	<u>Manufacturer</u>
ACFoam II	various	TAS 110	Polyisocyanurate foam insulation	Atlas Roofing Corp.
ACFoam III	various	TAS 110	Polyisocyanurate foam insulation	Atlas Roofing Corp.
Dens Deck®, Dens Deck Prime™	various	TAS 110	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.
ENRGY 3	Various	TAS 110	Polyisocyanurate foam insulation	Johns Manville Corp.
Fesco Board	various	TAS 110	High density perlite rigid insulation board	Johns Manville
ISO 95+ GL	various	TAS 110	Polyisocyanurate/Perlite rigid insulation	Firestone Building Products, Inc.
High Density Wood Fiberboard	various	TAS 110	Wood fiber insulation board	Generic
H-Shield	various	TAS 110	Polyisocyanurate foam insulation	Hunter Panels, LLC
Multi-Max-3, Multi-Max FA-3	various	TAS 110	Polyisocyanurate foam insulation	Rmax Inc.
Perlite Insulation	various	TAS 110	Perlite insulation board	Generic
Retro-Fit Board	Various	TAS 110	Perlite cover board	Johns Manville Corp.
Securock	various	TAS 110	Water resistant gypsum board	USG
Structodek High Density Fiberboard Roof Insulation	Various	TAS 110	Wood fiber insulation board	Blue Ridge Fiberboard, Inc.
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.	#12 Standard & OMG Heavy Duty Roofing Fastener	Base sheet fastening assembly	Various	OMG, Inc.
2.	Dekfast #12, Dekfast Galvalume Steel Hex Plate	Insulation fastener/Plate	Various	SFS Intec.
3.	Trufast #14 HD Fastener	Insulation fastener/Plate	Various	Altenloh, Brinck & Co., Inc.
4.	OlyBond 500	Insulation adhesive	Various	OMG, Inc.
5.	Insta-Stik	Insulation adhesive	Various	Flexible Products
6.	Pliodeck	Insulation adhesive	Various	Ashland Specialty
7.	Perlok-O #12 screw	Base sheet fastening assembly	Various	Derbigum Americas, Inc.
8.	Perlok-O #14 screw	Base sheet fastening assembly	Various	Derbigum Americas, Inc.
9.	Perlok-O Plate	3” round stress plate	3” round	Derbigum Americas, Inc.
10.	Perlok-O 3” Ribbed Plate	3” stress plate with ribs	3” round	Derbigum Americas, Inc.
11.	Perlok #12	Fastener	#12	Derbigum Americas, Inc.
12.	Perlok Steel Plate	3” stress plate	3” round	Derbigum Americas, Inc.

**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>
PRI Construction Materials Technologies	PRS-026-02-01	ASTM D 6222	09/14/12
	PRS-030-02-01	ASTM D 6223	04/15/13
	PRS-033-02-01	ASTM D 6223	04/15/13



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**EVIDENCE SUBMITTED**

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
	JI 3011494	Windstorm Classification	08/22/01
	JI 3028039	Windstorm Classification	09/11/06
IRT-ARCON	PC03-001	Uplift TAS 114-95	01/17/03
	PC03-002	Uplift TAS 114-95	01/17/03
Underwriters Laboratories	R13327	Fire Classification	11/23/92
Certified Testing Lab	CTLA 1020W	HVHZ-Hurricane Shelter	03/27/03
Atlantic & Caribbean Roof Consulting	ACRC 06-028	Windstorm Classification	07/26/06



**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, Multi-Max-3 Minimum 1.5” thick	1, 2, 3	1:3ft <sup>2</sup>
ACFoam-II, ACFoam-III Minimum 1.3” 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, , ACFoam-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, Derbicolor P-FR or Derbigum/Derbicolor XPS-FR, 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 P-FR or Derbicolor XPS-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 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 #9)



**Membrane Type:** APP  
**Deck Type 2I:** Steel, Insulated  
**Deck Description:** Minimum 22ga. Grade 33 steel deck attached to supports spaced 6 ft. o.c. with Traxx/5 fasteners spaced 6" o.c. along each intermediate support. Deck side laps secured 24" o.c. with Traxx/1 fasteners.  
**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, , Multi-Max-3 Minimum 1.5" thick	1, 2, 3	1:1.45t <sup>2</sup>
ACFoam-II, AC-Foam III Minimum 1.3" thick	1, 2, 3	1:1.45t <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, Multi-Max Minimum 1.5" thick	N/A	N/A
ACFoam-II, ACFoam-III Minimum 1.3" 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
Securock Minimum ¼" thick	N/A	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, 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, Derbicolor P-FR or Derbigum/Derbicolor XPS-FR, 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 P-FR or Derbicolor XPS-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 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, , Multi-Max-3 Minimum 1.5” thick	1, 2, 3	1:3ft <sup>2</sup>
ACFoam-II, ACFoam-III Minimum 1.3” 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, , Multi-Max Minimum 1.5” thick	5	N/A
ACFoam-II, ACFoam-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, Derbicolor P-FR or Derbigum/Derbicolor XPS-FR, 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 P-FR or Derbicolor XPS-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 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 #9)



**Membrane Type:** APP  
**Deck Type 2I:** Steel, Insulated  
**Deck Description:** Minimum 22ga. ASTM A1008 SS Grade 80 steel deck attached to structural supports spaced 6ft. o.c. with TRAXX/5 fasteners 6 in. o.c. at each bearing point. Deck side laps secured 24 in. o.c. with TRAXX/1 fasteners.  
**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>
Derbiboard, Derbiboard CA, , Multi-Max-3 Minimum 1.5” thick	1, 2, 3	1:1.33ft <sup>2</sup>
AC-Foam II, ACFoam-III Minimum 1.3” thick	1, 2, 3	1:1.33ft <sup>2</sup>
Dens Deck Prime Minimum ½” thick	1, 2, 3	1:1.33ft <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).

**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, Derbicolor P-FR or Derbigum/Derbicolor XPS-FR, 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 P-FR or Derbicolor XPS-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 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., Type B (min. 33 ksi) steel deck is secured to structural support at a maximum spacing of 6 ft. o.c. Steel deck is attached to supports with Teks 4, Teks 5, Traxx/4, or Traxx/5 fasteners screws spaced a maximum 6" o.c. Side Laps are fastened at 24" o.c. with Teks 1 or Traxx/1 fasteners.
- System Type B(5):** Base layer of insulation mechanically fastened, top layer adhered with approved asphalt, membrane torch adhered.

**All General and System Limitations apply.**

**Thermal Barrier:** (Optional) Minimum 3/4" Fesco Board or 1/2" DensDeck or SECUROCK Roof Board loose laid on the deck.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
<b>Derbiboard, ACFoam-II</b> Minimum 1.5" thick	7 or 8 with 9 or 10 11 with 12	1:1.45 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).

<u>Top Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
<b><u>Structodek High Density Fiberboard Roof Insulation, Retro-Fit Board</u></b> Minimum 1/2" thick	N/A	N/A
<b>Fesco Board</b> Minimum 3/4" 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.

**Base Sheet:** One ply of PRS Glass Ply IV, PRS Glass Ply VI, or PRS Modified Base, or Derbibase adhered to the insulated substrate with a full mopping of asphalt at an application rate of 20-25 lb/sq.

**Ply Sheet:** (Optional) One or more plies of Derbibase, Derbibase Ultra, Derbigum GP, Derbigum GP-FR, Derbigum XPS, or Derbigum XPS-FR fully adhered by torch.



- Surfacing:** Install one of the following (except over Derbigum GP-FR, Derbigum XPS-FR, Derbicolor GP-FR, Derbicolor P-FR or Derbicolor XPS-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 or Karnak #97 AF at an application rate of 1.5 gal./sq. APOC # 302 applied at an application rate of 3 gal./sq
- Membrane:** One ply of Derbigum GP, Derbigum GP-FR, Derbigum XPS, Derbigum XPS-FR, Derbicolor GP, Derbicolor GP-FR, Derbicolor P-FR, Derbicolor XPS, or Derbicolor XPS-FR fully adhered by torch.
- Maximum Design Pressure:** -45 psf. (See General Limitation #7)  
-67.5 psf with Minimum 2" thick **Base Insulation Layer** (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, , Multi-Max-3 Minimum 1.5” thick	N/A	N/A
AC-Foam II, ACFoam-III Minimum 1.3” 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, , Multi-Max Minimum 1.5” thick	1, 2, 3	1:3ft <sup>2</sup>
AC-Foam II, ACFoam-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, Derbicolor P-FR or Derbigum/Derbicolor XPS-FR, 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 P-FR or Derbicolor XPS-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 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 #9)



**Membrane Type:** APP  
**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.**

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
DerbiBoard, ACFoam II, H-Shield, ENRGY 3, ISO 95 +GL Minimum 1.5” 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>
SECUROCK Minimum ¼” thick	1, 2, 3	1:2ft <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. SECUROCK may be optionally primed with ASTM D 41 asphaltic primer applied at a rate of 0.75 gal/sq.

**Base Sheet:** One ply of Derbibase adhered with Permastic adhesive at an application rate of 1.5 to 2gal./sq.

**Membrane:** Derbigum/Derbicolor GP, Derbigum/Derbicolor XPS, Derbigum/Derbicolor GP-FR, Derbicolor P-FR, Derbigum/Derbicolor XPS-FR, Bitutak MB, Bitutak MB Mineral, Derbibrite, or Derbipure 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 P-FR or Derbicolor XPS-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. ± 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 #9)



**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, , Multi-Max-3 Minimum 1.5” thick</b>	N/A	N/A
<b>AC-Foam II, ACFoam-III Minimum 1.3” 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:** OMG 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, Derbicolor P-FR or Derbigum/Derbicolor XPS-FR, Bitutak MB, Bitutak MB Mineral, Derbibrute, or Derbipure 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 P-FR or Derbicolor XPS-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 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 #9)



**Membrane Type:** APP  
**Deck Type 2I:** Steel, Insulated  
**Deck Description:** Minimum 22 ga. Type B Grade 33 steel deck attached to structural supports spaced 5 ft. o.c. with #12-24 Teks fasteners 6 in. o.c. at each bearing point. Deck side laps secured 6 in. o.c. with #12 S.M. self-drilling screws.  
**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>
Derbiboard, Derbiboard CA, , Multi-Max-3 Minimum 1.5” thick	N/A	N/A
ACFoam-II, ACFoam-III Minimum 1.3” 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
Dens Deck Prime Minimum ¼” thick	N/A	N/A
Securock Minimum ¼” 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, Derbigum/Derbicolor GP-FR, Derbicolor P-FR or Derbigum/Derbicolor XPS-FR, 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 P-FR or Derbicolor XPS-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 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)



**Membrane Type:** APP  
**Deck Type 2I:** Steel, Insulated  
**Deck Description:** Minimum 22 ga. Type B Grade 80 steel deck attached to structural supports spaced 6 ft. o.c. with Traxx 5screws with 0.75 in. washers fasteners 6 in. o.c. Deck side laps secured 12 in. o.c. with Traxx/1 screws.  
**System Type D(3):** 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>
ACFoam-II, ACFoam-III, Derbiboard, Derbiboard CA Minimum 2.0" thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
SECUROCK Roof Board, DensDeck Minimum 0.5" 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 Derbibase HV mechanically fastened to the deck through the insulation as detailed below.

**Fastening:** Base Sheet fastened to deck with Trufast EHD fasteners with Trufast MP-3 plates spaced 12 in. o.c. at the minimum 3 in. base sheet side laps and 12 in. o.c. in two staggered rows 12 in. o.c. in the field of the sheet. Base sheet side laps are torch adhered prior to mechanical fastening.

**Ply Sheet:** Derbibase Ultra torch applied.

**Membrane:** One ply of Derbigum GP, Derbigum GP-FR, Derbigum XPS, Derbigum XPS-FR, Derbicolor GP, Derbicolor GP-FR, Derbicolor P-FR, Derbicolor XPS, or Derbicolor XPS-FR fully adhered By torch.

**Surfacing:** Install one of the following (except over Derbigum GP-FR, Derbigum XPS-FR, Derbicolor GP-FR, Derbicolor P-FR or Derbicolor XPS-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. ± 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:** -172.5 psf. (See General Limitation #7)



**Membrane Type:** APP  
**Deck Type 2I:** Steel, Insulated  
**Deck Description:** Minimum 18-22 ga. Type B Grade 80 steel deck attached to structural supports spaced 6 ft. o.c. with two Tek 5 screws with 0.75 in. washers fasteners 6 in. o.c. Deck side laps secured 12 in. o.c. with Traxx/1 screws.  
**System Type D(4):** 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>
ACFoam II, Derbiboard Minimum 1.5" thick	N/A	N/A
<b>Top Insulation Layer (Optional)</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
SECUROCK Roof Board Minimum 0.5" 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 Derbibase, Derbibase Ultra, Derbibase HV, or Derbigum GP mechanically fastened to the deck through the insulation as detailed below.

**Fastening:** Base Sheet fastened to deck with Perlok XHD and Perlok Accutrac Flat Bottom Plate 6 in. o.c. at the minimum 3 in. base sheet side laps and 12 in. o.c. in two staggered rows 10 in. from each base sheet side lap. Base sheet side laps are torch adhered prior to mechanical fastening.

**Ply Sheet:** (Optional) One or more plies of Derbibase, Derbibase Ultra, Derbibase HV, or Derbigum GP, Derbigum GP-FR, Derbigum XPS, or Derbigum XPS-FR fully adhered with Permastic applied at a rate of 1.5 – 2.0 gal/sq.  
 Or  
 (Optional) One or more plies of Derbibase, Derbibase Ultra, or Derbigum GP, Derbigum GP-FR, Derbigum XPS, or Derbigum XPS-FR fully adhered by torch.

**Membrane:** One ply of Derbigum GP, Derbigum GP-FR, Derbigum XPS, Derbigum XPS-FR, Derbicolor GP, Derbicolor GP-FR, Derbicolor P-FR, Derbicolor XPS, Derbicolor XPS-FR, Derbibrite, or Derbipure fully adhered with Permastic applied at a rate of 1.5 – 2.0 gal/sq.  
 Or  
 One ply of Derbigum GP, Derbigum GP-FR, Derbigum XPS, Derbigum XPS-FR, Derbicolor GP, Derbicolor GP-FR, Derbicolor P-FR, Derbicolor XPS, Derbicolor XPS-FR, Derbibrite, or Derbipure fully adhered by torch.



**Surfacing:**

Install one of the following (except over Derbigum GP-FR, Derbigum XPS-FR, Derbicolor GP-FR, Derbicolor P-FR or Derbicolor XPS-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 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:** -52.5 psf. (See General Limitation #7)



**Membrane Type:** APP  
**Deck Type 2I:** Steel, Insulated  
**Deck Description:** Minimum 18-20 ga. Type B Grade 80 steel deck attached to structural supports spaced 6 ft. o.c. with two Tek 5 screws with 0.75 in. washers fasteners 6 in. o.c. Deck side laps secured 12 in. o.c. with Traxx/1 screws.  
**System Type D(5):** 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>
ACFoam II, ACFoam III, Derbiboard, Derbiboard CA Minimum 2.0" thick	N/A	N/A
<u>Top Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
SECUROCK Roof Board, DensDeck Prime Minimum 0.375" 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 Derbibase HV mechanically fastened to the deck through the insulation as detailed below.

**Fastening:** Base Sheet fastened to deck with Perlok XHD and Perlok-O 3 in. Steel Plate 12 in. o.c. at the minimum 3 in. base sheet side laps and 12 in. o.c. in two staggered rows 12 in. from each base sheet side lap. Base sheet side laps are torch adhered prior to mechanical fastening.

**Ply Sheet:** Derbibase Ultra torch adhered.

**Membrane:** Derbigum GP, Derbigum GP-FR, Derbigum XPS, Derbigum XPS-FR, Derbicolor GP, Derbicolor GP-FR, Derbicolor P-FR, Derbicolor XPS, Derbicolor XPS-FR, Derbibrite, or Derbipure torch adhered.

**Surfacing:** Install one of the following (except over Derbigum GP-FR, Derbigum XPS-FR, Derbicolor GP-FR, Derbicolor P-FR or Derbicolor XPS-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. ± 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:** -82.5 psf. (See General Limitation #7)



**Membrane Type:** APP  
**Deck Type 2I:** Steel, Insulated  
**Deck Description:** Minimum 22 ga. Type B Grade 80 steel deck attached to structural supports spaced 6 ft. o.c. with one Traxx/5 fasteners with 0.75 in. Deck side laps secured 12 in. o.c. with Traxx/1 fastener.  
**System Type D(6):** 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>
ACFoam II, Derbiboard Minimum 0.5" thick	N/A	N/A
<u>Top Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
SECUROCK Gypsum-Fiber Roof Board, DensDeck Minimum 0.25" 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 Derbibase HV mechanically fastened to the deck through the insulation as detailed below.

**Fastening:** Base Sheet fastened to deck with Trufast #15 EHD fasteners and Trufast 3 in. Metal Insulation Plates 12 in. o.c. at the minimum 3 in. base sheet side laps and 12 in. o.c. in two staggered rows within the field. Base sheet side laps are torch adhered prior to mechanical fastening.

**Ply Sheet:** Derbibase Ultra torch adhered with minimum 3 in. side laps and minimum 4 in. end laps

**Membrane:** Derbipure torch adhered with minimum 3 in. wide side laps and minimum 4 in. end laps.

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

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. ± 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:** -142.5 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 61G20-3 of the Florida Administrative Code.

**END OF THIS ACCEPTANCE**

