

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

# 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 Recover Applications

**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# 08-0821.05 and consists of pages 1 through 17. The submitted documentation was reviewed by Alex Tigera.



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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/pera

## **ROOFING ASSEMBLY APPROVAL**

| Category:               | Roofing |
|-------------------------|---------|
| Sub-Category:           | APP M   |
| Deck Type:              | Recover |
| Maximum Design Pressure | See spe |
| Fire Classification:    | See Ger |

Roofing APP Modified Bitumen Recover See specific system assembly See General Limitation #1

# TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

TABLE 1

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



# TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

TABLE 1

| <u>Product</u>          | Dimensions   | Test<br><u>Specification</u> | Product<br>Description  |
|-------------------------|--|------------------------------|---|
| Derbicolor XPS/FR       | 33'4" x 39.4"; roll<br>weight: 100 lbs.                | ASTM D 6223                  | Mineral surfaced fire resistant modified<br>bitumen glass fiber and polyester<br>reinforced membrane for torch<br>application or Permastic cold adhesive<br>application.              |
| DerbiBrite              | 33'4" x 39.4"; roll<br>weight: 90 lbs.                 | ASTM D 6223                  | Fire resistant modified bitumen<br>fiberglass and polyester composite mat<br>with an acrylic top coating membrane<br>for torch application or Permastic cold<br>adhesive application. |
| Derbibase               | 66' x 39.4"; roll weight: 90 lbs.                      | ASTM D 5147                  | APP modified bitumen glass fiber base<br>sheet for mechanical attachment or<br>Permastic cold adhesive application.   |
| Derbibase Ultra         | 49.5' x 39.4"roll<br>weight: 102 lbs.                  | ASTM D5147                   | APP modified bitumen glass fiber base<br>sheet for mechanical attachment of<br>Permastic cold adhesive application.   |
| PRS Glass Base          | 108' x 36"; roll<br>weight: 82 lbs.                    | ASTM D 4601                  | Asphalt coated fiberglass base sheet for<br>use in hot-mop, mechanically fastened<br>or Permastic cold adhesive application.  |
| PRS Glass Ply IV        | 180' x 36"; roll<br>weight: 60 lbs.                    | ASTM D 2178<br>Type IV       | Asphalt coated fiberglass ply sheet for<br>use in hot-mop, or mechanically<br>fastened or Permastic cold adhesive<br>application.   |
| PRS Glass Ply VI        | 180' x 36"; roll<br>weight: 60 lbs.                    | ASTM D 2178<br>Type IV       | Asphalt coated fiberglass ply sheet for<br>use in hot-mop or mechanically fastened<br>or Permastic cold adhesive application.   |
| PRS Modified Base       | 180' x 36" roll<br>weight: 82 lbs.                     | ASTM D 5147                  | SBS polymer modified bitumen base sheet.  |
| Bitutak MB              | 33' x 39.4 roll<br>weight: 89 lbs                      | ASTM D 6222                  | APP polymer modified bitumen polyester reinforced membrane.   |
| Bitutak MB<br>(Mineral) | 39.4" x 33' roll<br>weight: 103 lbs.                   | ASTM D 6222                  | Mineral surfaced APP polymer modified bitumen, polyester reinforced membrane  |
| Permastic               | 5-gallon pails<br>55-gallon drums<br>350-gallong tanks |                              | Asphalt-based adhesive formulated<br>especially for adhering<br>Derbigum/Derbicolor roofing<br>membranes, Derbibase/Ultra , glass ply<br>sheets and glass base sheets.                |



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# TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

|                |  | Test                 | Product   |
|----------------|--|----------------------|---|
| <b>Product</b> | <b>Dimensions</b>                                      | <b>Specification</b> | <b>Description</b>  |
| Permastic IA   | 5-gallon pails<br>55-gallon drums<br>350-gallong tanks |                      | Asphalt-based adhesive formulated<br>especially for adhering base sheets and<br>Derbiboard insulation to concrete, non-<br>nailable substrates or polyisocyanurate. |

## **APPROVED INSULATIONS:**

|  |                   |                              | TABLE 2   |                                      |
|--|-------------------|------------------------------|---|--------------------------------------|
| <u>Product</u>                                 | <b>Dimensions</b> | Test<br><u>Specification</u> | Product<br><u>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<br>Deck Prime <sup>TM</sup>   |                   |                              | Water resistant gypsum board                          | Georgia Pacific Gypsum<br>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 <sup>TM</sup><br>PolyIso, RA       | various           | TAS 110                      | Polyisocyanurate foam insulation                      | GAF Materials Corp.                  |
| EnergyGuard <sup>TM</sup><br>Composite, RA     | various           | TAS 110                      | Polyisocyanurate/wood fiberboard or perlite composite | GAF Materials Corp.                  |
| E'NRG'Y-3, Plus<br>UltraGuard Gold, PSI-<br>25 | various           | TAS 110                      | Polyisocyanurate foam insulation                      | Johns Manville                       |
| ISO 95+  | various           | TAS 110                      | Polyisocyanurate/Perlite rigid insulation             | Firestone Building<br>Products, Inc. |
| ISO 95+ Composite                              | various           | TAS 110                      | Polyisocyanurate/Perlite rigid insulation             | Firestone Building<br>Products, Inc. |
| High Density Wood<br>Fiberboard                | various           | TAS 110                      | Wood fiber insulation board                           | Generic                              |
| Multi-Max-3, Multi-<br>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                              |



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# **APPROVED FASTENERS:**

#### TABLE 3

| <u>Fastener</u><br>Number | <u>Product Name</u>            | <u>Product</u><br>Description | <b>Dimensions</b> | <u>Manufacturer</u><br>(With Current NOA) |
|---------------------------|--------------------------------|-------------------------------|-------------------|---|
| 1.                        | Dekfast #12,<br>Deckfast Plate | Insulation<br>fastener/Plate  | Various           | SFS Intec.                                |
| 3.                        | OlyBond 500                    | Insulation adhesive           | Various           | OMG, Inc.                                 |
| 4.                        | Insta-Stik                     | Insulation adhesive           | Various           | Flexible Products                         |
| 5.                        | Pliodeck                       | Insulation adhesive           |                   | Ashland Specialty                         |

# **APPROVED SURFACING:**

|                | TAB                          | LE <b>4</b>                   |                             |
|----------------|------------------------------|-------------------------------|-----------------------------|
| <b>Product</b> | Test<br><u>Specification</u> | Product<br><u>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                      |



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# **EVIDENCE SUBMITTED**

| Test Agency                            | <u>Test Identifier</u>                | <b>Description</b>  | Date                        |
|--|---------------------------------------|---------------------|-----------------------------|
| Exterior Research & Design, LLC        | 10720.10.97-1                         | Uplift TAS 114      | 10/17/97                    |
| Factory Mutual<br>Research Corporation | 2W3A6.AM<br>2Y3A2.AM                  | Class 4470          | 02/21/97                    |
| Factory Mutual<br>Research Corporation | 2B5A5.AM                              | Class 4470          | 05/14/97                    |
| Factory Mutual<br>Research Corporation | 1D7A4.AM<br>2B5A7.AM                  | Class 4470          | 11/9/98<br>03/1/99          |
| Factory Mutual<br>Research Corporation | JI3007274<br>JI 3003642<br>JI 3001472 | Class 4470          | 2/7/01                      |
| IRT-ARCON                              | PC03-001<br>PC03-002                  | Uplift TAS 114-95   | 01/17/03                    |
| Factory Mutual                         | J.I. 0X2A3.AM                         | Product Name Change | 01/13/93                    |
| Underwriters<br>Laboratories           | R13327                                | Fire Classification | 11/23/92                    |
| Factory Mutual                         | ID 1039-267                           | Product Name Change | 7/8/04                      |
| Factory Mutual                         | ID 01669-267                          | Product Name Change | 10/26/05                    |
| Factory Mutual                         | JI 3017037                            | Wind Classification | 9/30/05                     |
| Factory Mutual                         | JI 3010261                            | Wind Classification | 4-26-01                     |
| Factory Mutual                         | JI 3008869                            | Wind Classification | 3-19-01                     |
| Factory Mutual                         | JI 3014692                            | Wind Classification | 8-5-03                      |
| Factory Mutual                         | JI 3023458                            | Wind Classification | 10-20-05                    |
| Factory Mutual                         | Letter 2-21-07 &<br>2-22-07           | Product Name Change | Letter 2-21-07 &<br>2-22-07 |
| Certified Testing<br>Laboratories      | CTLA 1020W                            | HVHZ                | 3-24-03                     |



### **APPROVED ASSEMBLIES**

| Membrane Type:           | APP  |
|--------------------------|--|
| Deck Type 7I:            | Recover  |
| <b>Deck Description:</b> | Concrete/cementitious wood fiber/wood/steel.             |
| System Type A(1):        | Insulation fully adhered with OlyBond adhesive fastener. |

#### All General and System limitations apply.

| <b>Base Insulation Layer</b>   | Insulation Fasteners<br>(Table 3) | <b>Fastener Density/ft<sup>2</sup></b> |
|--|-----------------------------------|--|
| Derbiboard, Derbiboard CA, Derbiboard composite<br>Minimum 1.5" thick    | N/A                               | N/A                                    |
| AC-Foam II, AC-Foam III<br>Minimum 1.3" thick                            | N/A                               | N/A                                    |
| E"NRG"Y-2, PSI-25<br>Minimum 1.4" thick                                  | N/A                               | N/A                                    |
| Dens Deck, Dens Deck Prime<br>Minimum ¼" thick                           | N/A                               | N/A                                    |
| Dens-Deck, Securock, High Density Fiberboard, Perlit<br>Minimum ½" thick | e<br>N/A                          | N/A                                    |

Note: Insulation shall be adhered to the existing substrate using a heated spray foam application machine with a 1:1 mix ratio of OlyBond dual component polyurethane adhesive at an application rate of 1 gallon per 100 square feet. 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:  | Derbibase, Derbibase Ultra, or Derbigum GP.  |
| 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.  |



NOA No 11-0722.05 Expiration Date: 08/23/12 Approval Date: 11/24/11 Page 7 of 17 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. ± 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:



| Membrane Type:           | APP  |
|--------------------------|--|
| Deck Type 7I:            | Recover                                      |
| <b>Deck Description:</b> | Concrete/cementitious wood fiber/wood/steel. |
| System Type A(2):        | Insulation fully adhered with Hot Asphalt.   |

| <b>Base Insulation Layer</b>  | <u>Insulation Fasteners</u><br>(Table 3) | <b>Fastener Density/ft<sup>2</sup></b> |
|---|--|--|
| Derbiboard, Derbiboard CA, Derbiboard composite<br>Minimum 1.5" thick | N/A                                      | N/A                                    |
| AC-Foam II, AC-Foam III<br>Minimum 1.3" thick                         | N/A                                      | N/A                                    |
| E"NRG"Y-2, PSI-25<br>Minimum 1.4" thick                               | N/A                                      | N/A                                    |

Note: Insulation shall be adhered to the existing substrate in a full mopping of any approved mopping hot 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, 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:                  | Derbibase, Derbibase Ultra, or Derbigum GP.  |
| 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<br>Pressure: | -75 psf. (See General Limitation #9)   |



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| Membrane Type:           | APP   |
|--------------------------|---|
| Deck Type 7I:            | Recover   |
| <b>Deck Description:</b> | Concrete/cementitious wood fiber/wood/steel.  |
| System Type B(1):        | Base layers of insulation mechanically fastened, optional top layer adhered with approved asphalt or Permastic, or Permastic IA |

| <b>Base Insulation Layer</b>  | <u>Insulation Fasteners</u><br><u>(Table 3)</u> | Fastener Density/ft <sup>2</sup> |
|---|---|----------------------------------|
| Derbiboard, Derbiboard CA, Derbiboard composite<br>Minimum 1.5" thick | 1   | 1:3 ft <sup>2</sup>              |
| AC-Foam II<br>Minimum 1.3" thick                                      | 1   | 1:3 ft <sup>2</sup>              |
| AC-Foam III<br>Minimum 1.3" thick                                     | 1   | 1:4 ft <sup>2</sup>              |
| E"NRG"Y-2, PSI-25<br>Minimum 1.4" thick                               | 1   | 1:3 ft <sup>2</sup>              |
| Multi-Max<br>Minimum 1.5" thick                                       | 1   | 1:2.9 ft <sup>2</sup>            |
| Perlite<br>Minimum ½" thick   | 1   | 1:2 ft <sup>2</sup>              |
| Dens-Deck, Dens-Deck Prime<br>Minimum ¼" thick                        | 1   | 1:2.7 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   | <u>Insulation Fasteners</u><br><u>(Table 3)</u> | <b>Fastener Density/ft<sup>2</sup></b> |
|--|---|--|
| Derbiboard, Derbiboard CA, Derbiboard Composite,<br>Minimum 1.5" thick | , AC-Foam II, AC-Foam III<br>N/A                | N/A                                    |
| Perlite<br>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 at 20-40 lbs/100 ft<sup>2</sup>. Or Permastic or Permastic Adhesive at an application rate of 1-1/2 to 2 gal/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as Base Layer only shall be used 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.

| 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<br>Pressure: | -45 psf. (See General Limitation #9).<br>-75 psf. Hot Asphalt and Polyisocyanurate (See General Limitation #9)  |



| Membrane Type:           | APP   |
|--------------------------|---|
| Deck Type 7I:            | Recover   |
| <b>Deck Description:</b> | Concrete/cementitious wood fiber/wood/steel.      |
| System Type C(1):        | All layers of insulation simultaneously attached. |

One or more layers of any of the following insulations.

| <b>Base Insulation Layer</b>                       | <u>Insulation Fasteners</u><br><u>(Table 3)</u> | <b>Fastener Density/ft<sup>2</sup></b> |
|--|---|--|
| Derbiboard, Derboboard CA, Derbiboard Composite, A | C-Foam II, AC-Foam III ,                        | Multi-Max-3                            |
| Minimum 1.5" thick                                 | N/A   | N/A                                    |
| AC-Foam II, AC-Foam III<br>Minimum 1.3" thick      | N/A   | N/A                                    |
| E"NRG"Y-2, PSI-25<br>Minimum 1.4" thick            | N/A   | N/A                                    |
| Dens Deck Prime<br>Minimum ¼" thick                | N/A   | N/A                                    |

Note: All insulation layers shall be simultaneously fastened; see Top Layer below for fasteners and density.

| Top Insulation Layer                               | Insulation Fasteners<br>(Table 3) | <b>Fastener Density/ft<sup>2</sup></b> |
|--|-----------------------------------|--|
| Derbiboard, Derboboard CA, Derbiboard Composite, A | C-Foam II, AC-Foam III            | 2                                      |
| Minimum 1.5" thick                                 | 1                                 | 1:2 ft <sup>2</sup>                    |
| Derboboard CA, AC-Foam III                         |                                   |  |
| Minimum 1.3" thick                                 | 1                                 | <b>1:2</b> ft <sup>2</sup>             |
| Perlite Insulation                                 |                                   |  |
| Minimum ¼" thick                                   | 1                                 | <b>1:2</b> ft <sup>2</sup>             |
| AC-Foam II   |                                   |  |
| Minimum 1.3" thick                                 | 1                                 | <b>1:2</b> ft <sup>2</sup>             |
| Dens Deck Prime                                    |                                   |  |
| Minimum <sup>1</sup> / <sub>4</sub> " thick        | 1                                 | <b>1:2 ft<sup>2</sup></b>              |



Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining that same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. 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%.  |
|                             | <ol> <li>APOC 400 applied at 1.3 gal./sq or Karnak #97 AF at an application rate of 1.5 gal./sq.<br/>APOC # 302 applied at an application rate of 3 gal./sq</li> </ol>  |
| Maximum Design<br>Pressure: | -45 psf. (See General Limitation #9)  |



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| Membrane Type:           | APP  |
|--------------------------|--|
| Deck Type 7I:            | Recover  |
| <b>Deck Description:</b> | Concrete/cementitious wood fiber/wood/steel.                     |
| System Type D(1):        | All layers of insulation and base sheet simultaneously attached. |

One or more layers of any of the following insulations.

| Base Insulation Layer  | Insulation Fasteners<br>(Table 3) | <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                                    |  |
| Perlite Insulation   |                                   |  |  |
| Minimum <sup>1</sup> /2" 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 RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

| Base Sheet: | One or 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:  | Fasten base sheet at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet 18" o.c See System Limitation #5.  |
| Ply Sheet:  | Derbigum GP, Derbibase or Derbibase Ultra  |



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| 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<br>Pressure: | -45 psf. (See General Limitation #9)  |



| Membrane Type:           | APP  |
|--------------------------|--|
| Deck Type 7I:            | Recover                                      |
| <b>Deck Description:</b> | Concrete/cementitious wood fiber/wood/steel. |
| System Type D(1):        | Base sheet mechanically fastened.            |

| Base Sheet:                 | One ply of PRS Glass Base, PRS Modified Base Sheet, Derbigum GP, Derbibase, Derbibase Ultra mechanically fastened to the deck as detailed below.  |
|-----------------------------|---|
| Fastening:                  | Fasten base sheet at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet 18" o.c See System Limitation #5.   |
| Ply Sheet:                  | Derbigum GP, 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<br>Pressure: | -45 psf. (See General Limitation #9)  |



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## **RECOVER SYSTEM LIMITATIONS:**

1. All System Limitations and General Limitations shall apply. See specific deck type Notice of Acceptance for deck type System Limitations.

# **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



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