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PRODUCT CONTROL NOTICE OF ACCEPTANCE

Johns Manville Corp.
717 17 Street (P.O. Box 5108)
Denver ,CO 80217

Your application for Notice of Acceptance (NOA) of:

SBS Modified Bitumen Systems Over Steel Decks

under Chapter 8 of the Code of Miami-Dade County governing the use of Alternate Materials and Types of Construction, and completely described herein, has been recommended for acceptance by the Miami-Dade County Building Code Compliance Office (BCCO) under the conditions specified herein.

This NOA shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at any time from a jobsite or manufacturer's plant for quality control testing. If this product or material fails to perform in the approved manner, BCCO may revoke, modify, or suspend the use of such product or material immediately. BCCO reserves the right to revoke this approval, if it is determined by BCCO that this product or material fails to meet the requirements of the South Florida Building Code.

The expense of such testing will be incurred by the manufacturer.

ACCEPTANCE NO.: 01-0524.01
EXPIRES: 07/19/2006

Raul Rodriguez
Chief Product Control Division

**THIS IS THE COVERSHEET, SEE ADDITIONAL PAGES FOR SPECIFIC AND GENERAL
CONDITIONS
BUILDING CODE & PRODUCT REVIEW COMMITTEE**

This application for Product Approval has been reviewed by the BCCO and approved by the Building Code and Product Review Committee to be used in Miami-Dade County, Florida under the conditions set forth above.

Francisco J. Quintana, R.A.
Director
Miami-Dade County
Building Code Compliance Office

APPROVED: 07/19/2001

ROOFING ASSEMBLY APPROVAL

Category: Roofing
Sub-Category: SBS Modified Bitumen
Deck Type: Steel
Maximum Design Pressure -75 psf
Fire Classification: See General Limitation #1

Approval Date: **July 19, 2001**

Expiration Date: **July 19, 2006**

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|-------------------|--|---------------------------|---|
| DynaBase | 54'-10" x 36"; roll weight: 88 lbs. | ASTM D 5147 | An SBS modified bitumen coated, fiber glass reinforced base sheet. |
| DynaWeld Base | 39'-3/8" x 32'-10"; roll weight: 90 lbs | ASTM D 5147 | An SBS modified bitumen coated, fiberglass reinforced base sheet for heat welded applications. |
| DynaFlex | 3 x 25 | ASTM D 5147 | A flexible polyester/glass scrim reinforced, granular-surfaced flashing sheet. |
| DynaGlas | 39-3/8" x 32'-10"; roll weight: 100 lbs. | ASTM D 6163 Type I | An SBS modified bitumen membrane surfaced with granules for application in hot asphalt. |
| DynaWeld Cap FR | 39'-3/8" x 32'-10" roll weight: 110 lbs. | ASTM D 6163 Type I | A fire resistant SBS modified bitumen membrane surfaced with granules for heat weld applications. |
| DynaGlas 30 FR | 39-3/8" x 32'-10"; roll weight: 90 lbs. | ASTM D 6163 Type I | A fire resistant SBS modified bitumen membrane surfaced with granules for application in hot asphalt. |
| DynaGlas FR | 39-3/8" x 32'-10"; roll weight: 101 lbs. | ASTM D 6163 Type I | A fire resistant SBS modified bitumen membrane surfaced with granules for application in hot asphalt. |
| DynaKap | 39-3/8" x 32'-10"; roll weight: 115 lbs. | ASTM D 6162 Type II | A fiberglass/polyester reinforced SBS modified bitumen membrane surfaced with granules for application in hot asphalt. |
| DynaKap FR | 39-3/8" x 32'-10"; roll weight: 115 lbs. | ASTM D 6162 Type II | A fire resistant, fiberglass/ polyester reinforced SBS modified bitumen membrane surfaced with granules for application in hot asphalt. |
| DynaLastic 180 | 39-3/8" x 32'-10"; roll weight: 101 lbs. | ASTM D 6164 Type I | A polyester reinforced SBS modified bitumen membrane surfaced with granules for application in hot asphalt. |
| DynaLastic 180 FR | 39-3/8" x 32'-10"; roll weight: 101 lbs. | ASTM D 6164 Type I | A 180 gram polyester mat reinforced, granular-surfaced, modified bitumen cap sheet for use in fire-rated systems |



Frank Zuloaga, RRC
 Roofing Product Control Examiner

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|-------------------|--|-----------------------------------|--|
| DynaLastic 180S | 37" x 36'-9" roll weight: 90 lbs. | ASTM D 6164 Type I | A 180 gram polyester mat reinforced, modified bitumen cap sheet for use in fire-rated systems. |
| DynaPly | 39-3/8" x 32'-10"; roll weight: 90 lbs. | ASTM D 6162 Grade S Type II | A polyester reinforced SBS modified bitumen ply sheet for use in conventional and modified bitumen built-up roof systems. |
| DynaLastic 250 FR | 39-3/8" x 32'-10"; roll weight: 115 lbs. | ASTM D 6164 Type II | A 250 gram polyester mat reinforced, granular-surfaced, modified bitumen cap sheet for use in fire-rated systems. |
| DynaMax | 39-3/8" x 32'-10"; roll weight: 99 lbs. | ASTM D 6162 Type III | A fiberglass/polyester reinforced SBS modified bitumen membrane surfaced with granules for application in hot asphalt or heat weld. |
| DynaMax FR | 39-3/8" x 32'-10"; roll weight: 116 lbs. | ASTM D 6162 Type III | A fire resistant, fiberglass/ polyester reinforced SBS modified bitumen membrane surfaced with granules for application in hot asphalt. |
| DynaClad | 39-3/8" x 33'-6"; roll weight: 101 lbs. | ASTM D 5147 | A foil faced, glass reinforced, SBS modified membrane for application in hot asphalt. |
| Ventsulation Felt | 36" x 36' | ASTM D 4897 Type II | Heavy duty fiber glass base sheet impregnated and coated on both sides with asphalt with or without fine mineral stabilizer. Surfaced on the bottom side with coarse mineral granules embedded in asphaltic coating. |
| GlasBase | 36" x 108'; roll weight: 84 lbs. | ASTM D 4601 Type I | Type II asphalt impregnated and coated glass fiber base sheet for use in conventional and modified bitumen built-up roofing. |
| GlasBase Plus | 36" x 108'; roll weight: 84 lbs. | ASTM D 4601 | Type II asphalt impregnated and coated glass fiber base sheet for use in conventional and modified bitumen built-up roofing. |
| GlasPly IV | 36" x 200' | ASTM D 2178 Type IV | Type IV asphalt impregnated glass felt for use in conventional and modified bitumen built-up roofing. |
| GlasPly Premier | 36" x 180' | ASTM D 2178 Type VI | Type VI asphalt impregnated glass felt for use in conventional and modified bitumen built-up roofing. |
| PermaPly No. 28 | 36" x 108'; roll weight: 72 lbs. | ASTM D 4601 Type II | Type II asphalt impregnated and coated glass fiber base sheet for use in conventional and modified bitumen built-up roofing. |
| Fesco Board | various | ASTM C 728 | Rigid perlite roof insulation board for built-up roofing systems; available flat or tapered. |



| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|---|-------------------|---------------------------|--|
| Fesco Foam | various | ASTM C 1289 | Rigid polyisocyanurate roof insulation with perlite board facing bonded to one side for use in conventional built-up and other roofing. |
| Fiber Glass Roof Insulation | various | ASTM C 726 | Fiberglas roof insulation. |
| DuraBoard | various | ASTM C 728 | A high density perlite roof insulation board for use in heat welded, modified bitumen systems. |
| Retro-Fit Board | various | ASTM C 728 | A high density perlite roof insulation board for use in conventional and modified bitumen built-up roofing systems. |
| JM E'NRG'Y-2 or Tapered E'NRG'Y-2 | various | ASTM 1289 | Polyisocyanurate insulation for use with single-ply, BUR and modified bitumen roof covers (includes all Factory Mutual approved roof covers) |
| JM E'NRG'Y-2 Plus | various | ASTM 1289 | Polyisocyanurate insulation laminated to ½" wood fiber for use with single-ply, BUR and modified bitumen roof covers (includes all Factory Mutual approved roof covers). |
| JM E'NRG'Y-2 Composite or Tapered Composite | various | ASTM 1289 | Polyisocyanurate insulation laminated to ½" perlite for use with single-ply, BUR and modified bitumen roof covers (includes all Factory Mutual approved roof covers). |
| JM Nailboard | various | PA 110 | Polyisocyanurate insulation laminated to 7/16" plywood for use with class A, B or C roof coverings. |
| JM PSI-25 or Tapered PSI-25 | various | ASTM 1289 | Nominal 25 psi compressive strength polyisocyanurate insulation for single-ply, BUR and modified bitumen roof covers (includes all Factory Mutual approved roof covers). |
| FesCant Plus Cant Strips, and Taper Edge | various | ASTM C 728 | Factory pre-fabricated cant strips and taper edge, manufactured from expanded perlite insulation. |
| CD-10 | Various | PA 114 | Insulation fastener for concrete decks. |
| UltraFast | various | PA 114 | Insulation fastener assembly (steel decks only). |
| UltraGrip | various | PA 114 | Insulation fastener assembly (steel decks only). |
| UltraFast ASAP | various | PA 114 | Insulation fastener assembly |
| GlasFast Plate/UltraFast Screw | various | PA 114 | Insulation fastener and plate assembly for fiber glass insulation only (steel and wood decks) |



Frank Zuloaga, RRC
Roofing Product Control Examiner

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|---|---|---------------------------------------|---|
| Lightweight Concrete (LWC) CR Base Fastener | various | PA 114 | G-90 galvanized double spreading leg fastener for securing base sheets to lightweight insulating concrete and some poured gypsum decks. |
| NTB 1H and 2H | various | PA 114 | A glass-filled nylon, double internal hex drive head, buttress thread, 3/4" (19 mm) diameter fastener for securing roof insulation to gypsum and structural wood fiber decks. |
| MBR Flashing Cement Base and Activator | N/A | Proprietary | A two component elastomeric, cold application adhesive, consisting of a modified proprietary compound with an asphalt base. |
| MBR Utility Cement | N/A | ASTM D 4586 | General purpose trowel grade, cutback bitumen cement mixture including inorganic fibers and mineral stabilizers. |
| MBR Bonding Cement and Activator | N/A | proprietary | A two component, elastomeric, cold application adhesive. |
| Bestile Industrial Roof Cement | various | ASTM D 4586, type I | A trowel grade, cutback bitumen flashing grade cement mixture including inorganic fibers and mineral stabilizers. |
| Flex-I-Drain | various | BOCA 76-61 SBCCI 89204 UBC 3236 | Two piece flexible drain system composed of a Noryl deck flange, a flexible neoprene bellows and no hub connection. Available in various sizes and styles for most retro-fit applications. |
| PC/PET RetroDrain | various | N/A | Engineered resin copolymer fabricated drain for retrofit applications. |
| USII RetroDrain | various | N/A | One piece, aluminum fabricated drain for retrofit applications. |
| SuperDome RetroDrain | various | N/A | Cast aluminum, heavy-duty drain for retrofit applications. |
| FP-10 Vents | 10" deck flange, base diameter of 4" and a height of 6" | N/A | One-way roof vent, designed for use in various roof systems, for the release of pressure created by gases or moisture vapor trapped within the roofing system. |
| Expand-O-Guard | various | N/A | Elastomeric expansion joint cover for vertical expansion and seismic joints. Manufactured from non-reinforced, form-supported elastomeric bellows with a bifurcated waterproof attachment to metal flanges. |



| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|---------------------------------------|-------------------|---------------------------|---|
| Expand-O-Flash | various | N/A | Expansion joint covers manufactured from non-reinforced, form-supported elastomeric bellows with a bifurcated waterproof attachment to metal flanges. |
| Presto-Lok Fascia and Flashing System | various | PA 114 | A multi-piece fascia and flashing system for built-up and modified bitumen roofing systems manufactured from aluminum or steel. |
| DynaTred & DynaTred Plus Roof Walkway | various | N/A | Preformed, skid-resistant boards. |

TRADE NAMES OF PRODUCTS MANUFACTURED BY OTHERS:

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> | <u>Manufacturer</u> |
|--------------------------------------|---------------------|---------------------------|--|---|
| Pyrox | various | PA 110 | Polyisocyanurate foam insulation | Apache Products Co. (with current PCA) |
| ACFoam II | various | PA 110 | Polyisocyanurate foam insulation | Atlas Energy Products (with current PCA) |
| Dekfast Fasteners #14 | | PA 114 | Insulation fastener for steel and concrete decks | Construction Fasteners Ind. (with current PCA) |
| Dekfast Hex Plate | 2- 7/8" x 3 1/4" | PA 114 | Galvalume hex stress plate. | Construction Fasteners Inc. (with current PCA) |
| Dekfast Lock Plate | 3" x 3- 1/4" | PA 114 | Polypropylene locking plate. | Construction Fasteners Inc. (with current PCA) |
| Dekfast Fasteners #15 | | PA 114 | Insulation fasteners for concrete decks | Construction Fasteners Inc. (with current PCA) |
| Dekfast Fasteners #12 | | PA 114 | Insulation fastener for steel and wood decks. | Construction Fasteners Inc. (with current PCA) |
| TPR | | PA 114 | Aluminum fastener for lightweight, gypsum and tectum decks | SFS Stadler (with current PCA) |
| FM-30, FM-45, FM-60, FM-90 Fasteners | | PA 114 | Base ply fastening systems for lightweight concrete decks | ES Products, Inc. (with current PCA) |



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| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> | <u>Manufacturer</u> |
|------------------------------|-------------------|---------------------------|---|--|
| Asphalt Emulsion | | PA 121 | Asphalt emulsion | Gardner (with current PCA) |
| Asphalt | | ASTM D 312 | Type III or IV hot asphalt bitumen adhesive | Generic |
| Asphalt Primer | | ASTM D 41 | Asphalt Primer | Generic |
| EPS | various | PA 110 | Extruded polystyrene insulation | Generic |
| High Density Wood Fiberboard | various | PA 110 | Wood fiber insulation board | Generic |
| Polyethylene | 4 mil min. | | Vapor barrier / Air barrier | Generic |
| Red Rosin | various | | Rosin paper for barrier layer on wood decks | Generic |
| Type X Gypsum | various | | Fire resistant rated gypsum | Generic |
| Dens-Deck | 4' x 8' | PA 110 | Gypsum board | Georgia-Pacific (with current PCA) |
| Overlayment Board | 4' x 8' | PA 110 | Gypsum board | Georgia-Pacific (with current PCA) |
| Sturdi-Top | various | PA 110 | Wood fiberboard | Georgia-Pacific (with current PCA) |
| #12 Roofgrip | | PA 114 | Insulation fastener for steel or wood decks | ITW Buildex (with current PCA) |
| #14 Roofgrip | | PA 114 | Insulation fastener steel, wood or concrete decks | ITW Buildex (with current PCA) |
| Gripdek Fastener | | PA 114 | Insulation fastener | ITW Buildex (with current PCA) |
| Hexcel Fastener | | PA 114 | Insulation fastener | ITW Buildex (with current PCA) |
| Hextra | | PA 114 | Insulation fastener and metal or plastic plate | ITW Buildex (with current PCA) |
| Polymer Gyptec | | PA 114 | Glass reinforced nylon gypsum deck fastener | ITW Buildex (with current PCA) |
| Premium Metal Plate | 3" square | PA 114 | 3" square galvalume AZ55 stress plate | ITW Buildex (with current PCA) |
| Standard Plastic Plate | 3" round | PA 114 | Polyolefin plastic plate | ITW Buildex (with current PCA) |
| Con-Tite | | PA 114 | Concrete deck insulation fastener | Olympic Mfg. Group (with current PCA) |

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> | <u>Manufacturer</u> |
|---------------------------|-------------------|---------------------------|--|--|
| Olympic Standard | 3" round | PA 114 | 3" round galvalume AZ55 steel plate | Olympic Mfg. Group (with current PCA) |
| Olympic Fastener #14 | | PA 114 | Insulation fastener | Olympic Mfg. Group (with current PCA) |
| Olympic Polypropylene | 3.25" round | PA 114 | Polypropylene plastic plate | Olympic Mfg. Group (with current PCA) |
| Olympic Fastener #12 | | PA 114 | Insulation fastener | Olympic Mfg. Group (with current PCA) |
| Multi-Max | various | PA 110 | Polyisocyanurate foam insulation | Rmax, Inc. (with current PCA) |
| HD Insul-Fixx Fastener | | PA 114 | Insulation fastener for use in steel and concrete decks | SFS/Stadler (with current PCA) |
| Insul-Fixx Fastener | | PA 114 | Insulation fastener for steel and wood decks | SFS/Stadler (with current PCA) |
| Insul-Fixx S | 3" square | PA 114 | 3" square galvalume AZ55 stress plate | SFS/Stadler (with current PCA) |
| Insul-Fixx P | 3" round | PA 114 | 3" round polyethylene stress plate | SFS/Stadler (with current PCA) |
| Plate Fixx Fastener | | PA 114 | Insulation fastening assembly | SFS/Stadler (with current PCA) |
| Rawl Drive | | PA 114 | Insulation fastener and steel and plastic stress plate for concrete deck | Powers Fasteners, Inc. (with current PCA) |
| Rawl Fasteners #12 or #14 | | PA 114 | Insulation fastener for steel and wood decks and concrete (#14 only) | Powers Fasteners, Inc. (with current PCA) |
| Rawl 2" Plate | 2" round | PA 114 | 2" round galvalume AZ55 membrane plate | Powers Fasteners, Inc. (with current PCA) |
| Rawl 3" Plate | 3" round | PA 114 | 3" round galvalume AZ55 steel plate | Powers Fasteners, Inc. (with current PCA) |
| Rawl Spike | | PA 114 | Insulation fastener and steel and plastic stress plate for concrete deck | Powers Fasteners, Inc. (with current PCA) |
| Rawlite | | PA 114 | Insulation fastener for cementitious and gypsum decks | Powers Fasteners, Inc. (with current PCA) |
| Rawlite 3" Plate | 3" round | PA 114 | 3" round galvalume AZ55 steel plate for use with Rawlite fasteners | Powers Fasteners, Inc. (with current PCA) |

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> | <u>Manufacturer</u> |
|----------------|-------------------|---------------------------|-------------------------------|--|
| Structodeck | various | PA 110 | High density wood fiber | Masonite |
| Celcore | | PA 110 | Cellular insulating concrete. | Celcore, Inc. (with current PCA) |
| Elastizell | | PA 110 | Cellular insulating concrete | Elastizell Corp. (with current PCA) |
| Zonocel | | PA 110 | Cellular insulating concrete | Siplast, Inc. (with current PCA) |
| Insulcel | | PA 110 | Cellular insulating concrete | Siplast, Inc. (with current PCA) |
| Concrecel | | PA 110 | Cellular insulating concrete | Concrecel, Int. (with current PCA) |
| Mearlcrete | | PA 110 | Cellular insulating concrete | The Mearl Corp. (with current PCA) |

EVIDENCE SUBMITTED:

| <u>Test Agency/Identifier</u> | <u>Name</u> | <u>Report</u> | <u>Date</u> |
|---|-------------------|--|-------------|
| Factory Mutual Research Corporation | J.I. #3001002 | Fire Classification | 05.11.98 |
| | JI #3002823 | 12' x 24' | 05.11.98 |
| | FMRC 1994 | Current Insulation and Fastening Requirements. | 01.01.94 |
| Dynatech Engineering, Inc. | 4360.03.95-1 | Wind Uplift Classification | 3.95 |
| | 4360.03.95-2 | Wind Uplift Classification | 3.95 |
| | 4361.5.95-1 | Wind Uplift Classification | 5.95 |
| Underwriters Laboratories, Inc. | R-10167 (N) | Fire Classification Compliance | 01.01.95 |
| Exterior Research & Design, LLC. | #4361-2.04.97-1 | Uplift Resistance PA 114 | 04.28.97 |
| Independent Roof Testing & Consulting, Inc. | # 99010 #99011 | Uplift Resistance PA 114 | 01.20.99 |



APPROVED ASSEMBLIES

- Membrane Type:** SBS
- Deck Type 2I:** Steel, Insulated, New Construction
- Deck Description:** 18-22 ga. steel
- System Type B:** Base layer of insulation mechanically fastened, top layer fully adhered with approved asphalt.
- Deck :** 18-22 ga Grade E steel deck shall be secured 6" o.c. to structural supports spaced a maximum of 5 ft on centers with 5/8" puddle welds.

All General and System Limitations apply.

| <u>Insulation Base Layer</u> | <u>Fastener Type</u> | <u>Fastening Detail No.</u> (See RAS 117) | <u>Fasteners Per Board</u> | <u>Fastener Density</u> |
|--|----------------------|--|----------------------------|-------------------------|
| Approved Type(s): E'NRG'Y 2 Minimum: 1.5" x 4' x 8' | UltraFast S/P | [4] | 16 | 1:2 ft ² |
| Approved Type(s): Fesco Foam Minimum: 1.5" x 4' x 4' | UltraFast S/P | [3] | 8 | 1:2 ft ² |
| Approved Type(s): Fesco Minimum: 1" x 4' x 4' | UltraFast S/P | [1] | 8 | 1:2 ft ² |

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>Insulation Top Layer</u> | <u>Fastener Type</u> | <u>Fastening Detail No.</u> (See RAS 117) | <u>Fasteners Per Board</u> | <u>Fastener Density</u> |
|---|----------------------|--|----------------------------|-------------------------|
| Approved Type(s): Any insulations listed for Base Layer, above | | | | |
| Approved Type(s): Retro-Fit Minimum: 1/2" x 2' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): Fesco Foam Minimum: 1.5" x 4' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): Fesco Minimum: 1" x 4' x 4' | N/A | N/A | N/A | N/A |

Note: Optional top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.



Frank Zuloaga, RRC
Roofing Product Control Examiner

Ply Sheet: One or more plies of GlasPly Premier, Glas Ply IV, DynaBase DynaPly or PermPly 28 adhered to the base sheet with approved mopping of asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of DynaKap, DynaKap FR, DynaMax, DynaMax FR, DynaGlas, DynaGlas FR, DynaGlas 30 FR, DynaLastic 250 FR, Dynalastic 180, Dynalastic 180 FR or DynaPly adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See application instructions for approved method of installation).

Surfacing: (Optional) Install one of the following:

1. 2-3 gallons TopGard B emulsion/sq. or 2 gallons aluminum coating/sq.. Coatings shall be applied according to the manufacturers' recommendations regarding specific application rates and weathering.
2. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq., respectively.

Maximum Design Pressure: -52.5 (See general limitation #7).



- Membrane Type:** SBS
- Deck Type 2I:** Steel, Insulated, New Construction
- Deck Description:** 18-22 ga. steel
- System Type B:** Base layer of insulation mechanically fastened, top layer fully adhered with approved asphalt.
- Deck :** 18-22 ga Grade E steel deck shall be secured 6" o.c. to structural supports spaced a maximum of 5 ft on centers with 5/8" puddle welds.

All General and System Limitations apply.

| <u>Insulation Base Layer</u> | <u>Fastener Type</u> | <u>Fastening Detail No.</u> (See RAS 117) | <u>Fasteners Per Board</u> | <u>Fastener Density</u> |
|--|----------------------|--|----------------------------|-------------------------|
| Approved Type(s): Fesco Foam Minimum: 1.5" x 4' x 4' | UltraFast S/P | [3] | 8 | 1:2 ft ² |
| Approved Type(s): Fesco Minimum: 3/4" x 2' x 4' | UltraFast S/P | [1] | 4 | 1:2 ft ² |

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>Insulation Top Layer</u> | <u>Fastener Type</u> | <u>Fastening Detail No.</u> (See RAS 117) | <u>Fasteners Per Board</u> | <u>Fastener Density</u> |
|---|----------------------|--|----------------------------|-------------------------|
| Approved Type(s): Any insulations listed for Base Layer, above | | | | |
| Approved Type(s): Tapered Fesco Minimum: 3/4" x 4' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): Tapered E'NRG'Y-2 Minimum: 1.3" x 4' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): Tapered Fiber Glass Minimum: 3/4" x 4' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): Retro-Fit Minimum: 1/2" x 2' x 4' | N/A | N/A | N/A | N/A |

Note: Optional top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.



Frank Zuloaga, RRC
Roofing Product Control Examiner

- Base Sheet: (Optional) One ply of PermaPly No. 28, DynaBase, GlasBase or GlasBase Plus adhered to the insulated substrate in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.. If base sheet is applied directly to polyisocyanurate insulation, only a spot or strip mopped application as detailed in this approval is approved; see General Limitation #4.
- Ply Sheet: One or more plies of GlasPly Premier, Glas Ply IV, GlasBase, GlasBase Plus, DynaBase or DynaPly adhered to the base sheet with approved mopping of asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..
- Membrane: One ply of DynaKap, DynaKap FR, DynaMax, DynaMax FR, DynaGlas, DynaGlas FR, DynaGlas 30 FR, DynaLastic 250 FR, Dynalastic 180, Dynalastic 180 FR or DynaPly adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See application instructions for approved method of installation).
- Surfacing: (Optional) Install one of the following:
1. 2-3 gallons TopGard B emulsion/sq. or 2 gallons aluminum coating/sq.. Coatings shall be applied according to the manufacturers' recommendations regarding specific application rates and weathering.
 2. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq., respectively.
- Maximum Design Pressure: -52.5 (See general limitation #7).



- Membrane Type:** SBS
- Deck Type 2I:** Steel, Insulated, New Construction
- Deck Description:** 18-22 ga. steel
- System Type B:** Base layer of insulation mechanically fastened, top layer fully adhered with approved asphalt.
- Deck :** Deck shall be secured 6" o.c. to structural supports with screw or puddle welds.

All General and System Limitations apply.

| <u>Insulation Base Layer</u> | <u>Fastener Type</u> | <u>Fastening Detail No.</u> (See RAS 117) | <u>Fasteners Per Board</u> | <u>Fastener Density</u> |
|---|--------------------------|--|--------------------------------|-----------------------------|
| Approved Type(s): MultiMax, E'NRG'Y-2. ACFoam II | | | | |
| Minimum: 2" x 4' x 4' | UltraFast S/P | [3] | 11 | 1:1.45 ft ² |
| Approved Type(s): Fesco Foam | | | | |
| Minimum: 2" x 4' x 4' | UltraFast S/P | [3] | 11 | 1:1.45 ft ² |

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>Insulation Top Layer</u> | <u>Fastener Type</u> | <u>Fastening Detail No.</u> (See RAS 117) | <u>Fasteners Per Board</u> | <u>Fastener Density</u> |
|---|--------------------------|--|--------------------------------|-----------------------------|
| Approved Type(s): Any insulations listed for Base Layer, above | | | | |
| Approved Type(s): Retro-Fit | | | | |
| Minimum: ½" x 2' x 4' | N/A | N/A | N/A | N/A |

Note: Optional top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: (Optional) One ply of PermaPly No. 28, DynaBase, GlasBase or GlasBase Plus adhered to the insulated substrate in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.. If base sheet is applied directly to polyisocyanurate insulation, only a spot or strip mopped application as detailed in this approval is approved; see General Limitation #4.

Ply Sheet: Three plies of GlasPly Premier, Glas Ply IV, GlasBase, GlasBase Plus, DynaBase or DynaPly adhered to the base sheet with approved mopping of asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..



Frank Zuloaga, RRC
Roofing Product Control Examiner

Membrane: One ply of DynaKap, DynaKap FR, DynaMax, DynaMax FR, DynaGlas, DynaGlas FR, DynaGlas 30 FR, DynaLastic 250 FR, Dynalastic 180, Dynalastic 180 FR or DynaPly adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See application instructions for approved method of installation).

Surfacing: (Optional) Install one of the following:

1. 2-3 gallons TopGard B emulsion/sq. or 2 gallons aluminum coating/sq.. Coatings shall be applied according to the manufacturers' recommendations regarding specific application rates and weathering.
2. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq., respectively.

Maximum Design Pressure: -75 (See general limitation #7).



Frank Zuloaga, RRC
Roofing Product Control Examiner

Membrane Type: SBS

Deck Type 2I: Steel, Insulated, New Construction

Deck Description: 18-22 ga. steel

System Type C: All layers of insulation simultaneously mechanically fastened.

All General and System Limitations apply.

| <u>Insulation Base Layer</u> | <u>Fastener Type</u> | <u>Fastening Detail No.</u> (See RAS 117) | <u>Fasteners Per Board</u> | <u>Fastener Density</u> |
|--|----------------------|--|----------------------------|-------------------------|
| Approved Type(s): ACFoam-II, E'NRG'Y-2, MultiMax Minimum: 1.3" x 4' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): Fesco Foam Minimum: 1.5" x 4' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): Fesco Minimum: ¾" x 2' x 4' | N/A | N/A | N/A | N/A |

Note: Both layers of insulation shall be simultaneously mechanically fastened; see top layer below for fasteners and density.

| <u>Insulation Top Layer</u> | <u>Fastener Type</u> | <u>Fastening Detail No.</u> (See RAS 117) | <u>Fasteners Per Board</u> | <u>Fastener Density</u> |
|--|----------------------|--|----------------------------|-------------------------|
| Approved Type(s): ACFoam-II, E'NRG'Y-2, MultiMax Minimum: 1.3" x 4' x 4' | UltraFast S/P | [3] | 8 | 1:2 ft ² |
| Approved Type(s): Fesco Foam Minimum: 1.5" x 4' x 4' | UltraFast S/P | [3] | 8 | 1:2 ft ² |
| Approved Type(s): Fesco Minimum: ¾" x 2' x 4' | UltraFast S/P | [1] | 4 | 1:2 ft ² |
| Approved Type(s): Retro-Fit Minimum: ½" x 2' x 4' | UltraFast S/P | [1] | 4 | 1:2 ft ² |

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 the 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: (Optional) One ply of PermaPly No. 28, DynaBase, GlasBase, or GlasBase Plus adhered to the insulated substrate in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.. If base sheet is applied directly to polyisocyanurate insulation, only a spot or strip mopped application as detailed in this approval is approved; see General Limitation #4.
- Ply Sheet: One or more plies of DynaBase, GlasBase, GlasBase Plus, PermaPly No. 28, GlasPly Premier, Glas Ply IV, or DynaPly adhered to the base sheet with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..
- Membrane: One ply of DynaKap, DynaKap FR, DynaMax, DynaMax FR, DynaLastic 250FR, DynaGlas, DynaGlas FR, DynaGlas 30 FR, Dynalastic 180, Dynalastic 180 FR or DynaPly adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See application instructions for approved method of installation).
- Surfacing: (Optional) Install one of the following:
1. 2-3 gallons TopGard B emulsion/sq. or 2 gallons aluminum coating/sq.. Coatings shall be applied according to the manufacturers' recommendations regarding specific application rates and weathering.
 2. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq., respectively.
- Maximum Design Pressure: -60 (See general limitation #9).



Frank Zuloaga, RRC
Roofing Product Control Examiner

- Membrane Type:** SBS
- Deck Type 2I:** Steel, Insulated, New Construction
- Deck Description:** 18-22 ga. steel
- System Type C:** All layers of insulation simultaneously mechanically fastened.
- Deck :** 18-22 ga Grade E steel deck shall be secured 6" o.c. to structural supports spaced a maximum of 5 ft on centers with 5/8" puddle welds.

All General and System Limitations apply.

| <u>Insulation Base Layer</u> | <u>Fastener Type</u> | <u>Fastening Detail No.</u> (See RAS 117) | <u>Fasteners Per Board</u> | <u>Fastener Density</u> |
|--|----------------------|--|----------------------------|-------------------------|
| Approved Type(s): ACFoam-II, E'NRG'Y-2, MultiMax Minimum: 1.5" x 4' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): Fesco Foam Minimum: 1.5" x 4' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): Fesco Minimum: ¾" x 2' x 4' | N/A | N/A | N/A | N/A |

Note: Both layers of insulation shall be simultaneously mechanically fastened; see top layer below for fasteners and density.

| <u>Insulation Top Layer</u> | <u>Fastener Type</u> | <u>Fastening Detail No.</u> (See RAS 117) | <u>Fasteners Per Board</u> | <u>Fastener Density</u> |
|--|----------------------|--|----------------------------|-------------------------|
| Approved Type(s): ACFoam-II, E'NRG'Y-2, MultiMax Minimum: 1.3" x 4' x 4' | UltraFast S/P | [3] | 8 | 1:2 ft ² |
| Approved Type(s): Fesco Foam Minimum: 1.5" x 4' x 4' | UltraFast S/P | [3] | 8 | 1:2 ft ² |
| Approved Type(s): Fesco Minimum: ¾" x 2' x 4' | UltraFast S/P | [1] | 4 | 1:2 ft ² |
| Approved Type(s): Retro-Fit Minimum: ½" x 2' x 4' | UltraFast S/P | [1] | 4 | 1:2 ft ² |

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 the 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: (Optional) One ply of PermaPly No. 28, DynaBase, GlasBase, or GlasBase Plus adhered to the insulated substrate in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.. If base sheet is applied directly to polyisocyanurate insulation, only a spot or strip mopped application as detailed in this approval is approved; see General Limitation #4.
- Ply Sheet: One or more plies of DynaBase, GlasBase, GlasBase Plus, PermaPly No. 28, GlasPly Premier, Glas Ply IV, or DynaPly adhered to the base sheet with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..
- Membrane: One ply of DynaKap, DynaKap FR, DynaMax, DynaMax FR, DynaLastic 250FR, DynaGlas, DynaGlas FR, DynaGlas 30 FR, Dynalastic 180, Dynalastic 180 FR or DynaPly adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See application instructions for approved method of installation).
- Surfacing: (Optional) Install one of the following:
1. 2-3 gallons TopGard B emulsion/sq. or 2 gallons aluminum coating/sq.. Coatings shall be applied according to the manufacturers' recommendations regarding specific application rates and weathering.
 2. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq., respectively.
- Maximum Design Pressure: -52.5 (See general limitation #7).



Frank Zuloaga, RRC
Roofing Product Control Examiner

- Membrane Type:** SBS
- Deck Type 2I:** Steel, Insulated, New Construction
- Deck Description:** 18-22 ga. steel
- System Type C:** All layers of insulation simultaneously mechanically fastened.
- Deck :** Deck shall be secured 6" o.c. to structural supports with screw or welds.

All General and System Limitations apply.

| <u>Insulation Base Layer</u> | <u>Fastener Type</u> | <u>Fastening Detail No.</u> (See RAS 117) | <u>Fasteners Per Board</u> | <u>Fastener Density</u> |
|--|----------------------|--|----------------------------|-------------------------|
| Approved Type(s): ACFoam-II, E'NRG'Y-2, MultiMax Minimum: 1.5" x 4' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): Fesco Foam Minimum: 1.5" x 4' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): Fesco Minimum: ¾" x 2' x 4' | N/A | N/A | N/A | N/A |

Note: Both layers of insulation shall be simultaneously mechanically fastened; see top layer below for fasteners and density.

| <u>Insulation Top Layer</u> | <u>Fastener Type</u> | <u>Fastening Detail No.</u> (See RAS 117) | <u>Fasteners Per Board</u> | <u>Fastener Density</u> |
|---|----------------------|--|----------------------------|-------------------------|
| Approved Type(s): E'NRG'Y-2 Minimum: 1.3" x 4' x 4' | UltraFast S/P | [3] | 11 | 1:1.4 ft ² |
| Approved Type(s): DuraBoard Minimum: ¾" x 4' x 4' | UltraFast S/P | [3] | 11 | 1:1.4 ft ² |
| Approved Type(s): Fesco Minimum: ¾" x 4' x 4' | UltraFast S/P | [3] | 12 | 1:1.3 ft ² |
| Approved Type(s): Retro-Fit Minimum: ½" x 2' x 4' | UltraFast S/P | [3] | 12 | 1:1.3 ft ² |

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 the 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: (Optional) One ply of PermaPly No. 28, DynaBase, GlasBase, or GlasBase Plus adhered to the insulated substrate in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.. If base sheet is applied directly to polyisocyanurate insulation, only a spot or strip mopped application as detailed in this approval is approved; see General Limitation #4.
- Ply Sheet: One or more plies of DynaBase, GlasBase, GlasBase Plus, PermaPly No. 28, GlasPly Premier, Glas Ply IV, or DynaPly adhered to the base sheet with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..
- Membrane: One ply of DynaKap, DynaKap FR, DynaMax, DynaMax FR, DynaLastic 250FR, DynaGlas, DynaGlas FR, DynaGlas 30 FR, Dynalastic 180, Dynalastic 180 FR or DynaPly adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See application instructions for approved method of installation).
- Surfacing: (Optional) Install one of the following:
1. 2-3 gallons TopGard B emulsion/sq. or 2 gallons aluminum coating/sq.. Coatings shall be applied according to the manufacturers' recommendations regarding specific application rates and weathering.
 2. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq., respectively.
- Maximum Design Pressure: -75 (See general limitation #7).



- Membrane Type:** SBS
- Deck Type 2I:** Steel, Insulated, New Construction
- Deck Description:** 18-22 ga. steel
- System Type C:** All layers of insulation simultaneously mechanically fastened.
- Deck :** Deck shall be secured 6" o.c. to structural supports with screws or puddle welds.

All General and System Limitations apply.

| <u>Insulation Base Layer</u> | <u>Fastener Type</u> | <u>Fastening Detail No.</u> (See RAS 117) | <u>Fasteners Per Board</u> | <u>Fastener Density</u> |
|--|--------------------------|--|--------------------------------|-----------------------------|
| Approved Type(s): E'NRG'Y-2 Minimum: 1.5" x 4' x 4' | N/A | N/A | N/A | N/A |

Note: Both layers of insulation shall be simultaneously mechanically fastened; see top layer below for fasteners and density.

| <u>Insulation Top Layer</u> | <u>Fastener Type</u> | <u>Fastening Detail No.</u> (See RAS 117) | <u>Fasteners Per Board</u> | <u>Fastener Density</u> |
|--|--------------------------|--|--------------------------------|-----------------------------|
| Approved Type(s): DuraBoard Minimum: ¾" x 4' x 4' | UltraFast S/P | [3] | 12 | 1:1.3 ft ² |

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 the 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 or more plies of DynaWeld Base heat welded.
- Membrane:** One ply of DynaWeld FR heat welded to base sheet.
- Maximum Design Pressure:** -75 (See general limitation #7).



Membrane Type: SBS
Deck Type 2I: Steel, Insulated, New Construction
Deck Description: 18-22 ga. steel
System Type D: All layers of insulation simultaneously mechanically fastened with base sheet.

All General and System Limitations apply.

| <u>Insulation Layer</u> | <u>Fastener Type</u> | <u>Fastening Detail No.</u> (See RAS 117) | <u>Fasteners Per Board</u> | <u>Fastener Density</u> |
|--|----------------------|--|----------------------------|-------------------------|
| One or more layers of any of the following insulations: | | | | |
| Approved Type(s): ACFoam-II, E'NRG'Y-2, MultiMax Minimum: 1.3" x 4' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): Fesco Foam Minimum: 1.5" x 4' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): Fesco Minimum: ¾" x 2' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): Fiber Glass Minimum: ¾" x 4' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): Retro-Fit Board Minimum: ½" x 2' x 4' | N/A | N/A | N/A | N/A |

Note: Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum 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. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Base Sheet: One or two plies of PermaPly No. 28, DynaBase, GlasBase, GlasBase Plus, Dynabase or Ventsulation fastened to the deck through the insulation as described below:

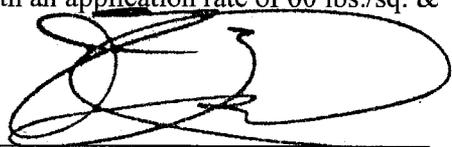
Fastening: Fasten base sheet with Rawl #12 or #14 or UltraFast screw at a 4" side lap 9" o.c. and two rows staggered in the center of the sheet 18" o.c.

Ply Sheet (Optional): One or more plies of GlasPly Premier, Glas Ply IV, GlasBase, GlasBase Plus, DynaBase or DynaPly adhered to the base sheet with approved mopping of asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of DynaKap, DynaKap FR, DynaGlas, DynaGlas FR, DynaGlas 30 FR, Dynalastic 180, Dynalastic 180 FR or DynaPly adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See application instructions for approved method of installation).

Surfacing: (Optional) Install one of the following:

1. 2-3 gallons TopGard B emulsion/sq. or 2 gallons aluminum coating/sq. Coatings shall be applied according to the manufacturers' recommendations regarding specific application rates and weathering.
2. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq., respectively.



Frank Zuloaga, RRC
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Maximum Design
Pressure: -60 (See general limitation #9).



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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 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 Engineer, 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. **(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.)**



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NOTICE OF ACCEPTANCE STANDARD CONDITIONS

- 1 Renewal of this Acceptance (approval) shall be considered after a renewal application has been filed and the original submitted documentation, including test supporting data, engineering documents, are no older than eight (8) years.
- 2 Any and all approved products shall be permanently labeled with the manufacturer's name, city, state, and the following statement: "Miami-Dade County Product Control Approved", or as specifically stated in the specific conditions of this Acceptance.
- 3 Renewals of Acceptance will not be considered if:
 - a) There has been a change in the South Florida Building Code affecting the evaluation of this product and the product is not in compliance with the code changes;
 - b) The product is no longer the same product (identical) as the one originally approved;
 - c) If the Acceptance holder has not complied with all the requirements of this acceptance, including the correct installation of the product;
 - d) The engineer who originally prepared, signed and sealed the required documentation initially submitted, is no longer practicing the engineering profession.
- 4 Any revision or change in the materials, use, and/or manufacture of the product or process shall automatically be cause for termination of this Acceptance, unless prior written approval has been requested (through the filing of a revision application with appropriate fee) and granted by this office.
- 5 Any of the following shall also be grounds for removal of this Acceptance:
 - a) Unsatisfactory performance of this product or process;
 - b) Misuse of this Acceptance as an endorsement of any product, for sales, advertising or any other purposes.
- 6 The Notice of Acceptance 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 Notice of Acceptance is displayed, then it shall be done in its entirety.
- 7 A copy of this Acceptance as well as approved drawings and other documents, where it applies, shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at all times. The copies need not be resealed by the engineer.
- 8 Failure to comply with any section of this Acceptance shall be cause for termination and removal of Acceptance.
- 9 This Acceptance contains pages 1 through 26.

END OF THIS ACCEPTANCE



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