



BUILDING CODE COMPLIANCE OFFICE
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908

CONTRACTOR LICENSING SECTION
(305) 375-2527 FAX (305) 375-2558

CONTRACTOR ENFORCEMENT DIVISION
(305) 375-2966 FAX (305) 375-2908

PRODUCT CONTROL DIVISION
(305) 375-2902 FAX (305) 372-6339

PRODUCT CONTROL NOTICE OF ACCEPTANCE

CertainTeed Corporation (PA)
1400 Union Meeting Road P.O. Box 1100
Blue Bell, PA 19422-0761

Your application for Notice of Acceptance (NOA) of:

Modified Bitumen Roof Systems Over Wood 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.: 01-0730.03

EXPIRES: 06/19/2003

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: 09/06/2001

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Modified
Material: APP, SBS
Deck Type: Wood
Maximum Design Pressure -60psf
Fire Classification: See General Limitation #1

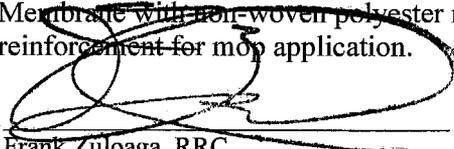
Approval Date: September 06, 2001

Expiration Date: June 19, 2003

Table 1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
All Weather/Empire Base Sheet	36" x 72', Roll weight: 86 lbs. (2 squares)	ASTM D 2626 UL Type 15	Asphalt coated organic base sheet.
Flex-I-Glas™ Base Sheet	36" x 108', Roll weight: 90 lbs. (3 squares)	UL Type G2 ASTM D 4601, type II	Modified Bitumen coated fiberglass base sheet.
Flex-I-Glas™ FR Base Sheet	39 3/8" x 50', Roll weight: 90 lbs. (1.5 squares)	UL Type G2 ASTM D 4601, type II	Modified Bitumen coated fiberglass base sheet.
Flintglas® Ply Sheet Type IV or VI	36" x 180', Roll weight: 40/55 lbs. (5 squares)	ASTM D 2178 Type IV or VI UL Type G1	Fiberglass, asphalt impregnated ply sheet.
Flintlastic STA STA Plus 5.0	39 3/8" x 33', Roll weight: 90 lbs. (1 square)	ASTM D 6222, Grade S, Type II	Smooth surfaced APP Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application.
Flintlastic GTA, GTA-FR or Flintlastic Diamond GTA	39 3/8" x 33' 3", Roll weight: 105 lbs. (1 square)	ASTM D 6222, Grade G, type II	Granule surfaced APP Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application.
Flintlastic GTS	39 3/8" x 24'9", Roll weight: 92 lbs. (3/4 square)	ASTM D 6164, Grade G, Type II	Granule surfaced SBS Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application.
Flintlastic GMS, Premium GMS	39 3/8" x 34' 2", Roll weight: 100/105 lbs. (1 square)	ASTM D 6164, Grade G, Type II	Granule surfaced SBS Modified Bitumen membrane with non-woven polyester mat reinforcement for mop application.
Flintlastic FR-P, Premium FR-P	39 3/8" x 34' 2", Roll weight: 105 lbs. (1 square)	ASTM D 6164, Grade G, Type I	Fire resistant, granule surfaced SBS Modified Bitumen Membrane with non-woven polyester mat reinforcement for mop application.
Flintlastic FR Cap	39 3/8" x 34' 2", Roll weight: 90 lbs. (1 square)	ASTM D 6163, Grade G, Type I	Fire resistant, granule surfaced SBS Modified Bitumen membrane with fiberglass mat reinforcement for mop applications.
Flexiglas Premium Cap 960	36" x 38" (1 square)	ASTM D 6163, Grade G, Type I	Granule surfaced SBS Modified Bitumen membrane with fiberglass mat reinforcement for mop application
Ultra Poly SMS	36" x 64'4" (2 squares)	ASTM D 6164 Grade S, Type I	Smooth surfaced SBS Modified Bitumen Membrane with non-woven polyester mat reinforcement for mop application.

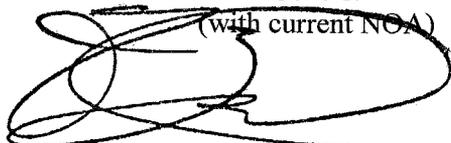

 Frank Zuloaga, RRC
 Roofing Product Control Examiner

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
GlasBase™ Base Sheet	36" x 108', Roll weight: 69 lbs. (3 squares)	ASTM D 4601 UL Type G2	Asphalt coated, fiberglass base sheet.
PolySMS Base Sheet	39 3/8" x 64' 4", Roll weight: 90 lbs. (2 squares)	ASTM D 5147	Modified Bitumen coated polyester base sheet.
Yosemite® Mineral Surfaced Cap Sheet	36" x 36', Roll weight: 90 lbs. (1 square)	ASTM D 249 UL Type 30	Mineral Surfaced organic cap and buffer sheet.
Black Diamond Base Sheet	36" x 75', Roll weight 75 lbs. (2.25 squares)	PA 103 ASTM D 1970	Slag surfaced SBS Modified Bitumen sheet with fiberglass reinforcement for peel and stick application.

TABLE 2

TRADE NAMES OF PRODUCTS MANUFACTURED BY OTHERS:

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>	<u>Manufacturer</u>
ACFoam II	various	PA 110	Polyisocyanurate foam insulation	Atlas Energy Products (with current NOA)
E'NRG'Y-2 or PSI-25	various	PA 110	Polyisocyanurate foam insulation	NRG Barriers, Inc. (with current NOA)
ISORoc	various	PA 110	Polyisocyanurate foam and rockwool composite insulation	NRG Barriers, Inc. (with current NOA)
E'NRG'Y-2 Plus	various	PA 110	Polyisocyanurate foam wood fiberboard composite insulation	NRG Barriers, Inc. (with current NOA)
Multi-Max	various	PA 110	Polyisocyanurate foam insulation.	RMAX (with current NOA)
Hy-Therm AP	various	PA 110	Polyisocyanurate foam insulation	Celotex Corp. (with current NOA)
UltraGard Gold	various	PA 110	Polyisocyanurate foam insulation	Johns Manville (with current NOA)
Pyrox	various	PA 110	Polyisocyanurate foam insulation	Apache (with current NOA)
ISO 95+	various	PA 110	Polyisocyanurate foam insulation	Firestone (with current NOA)
High Density Fiberboard	various	PA 100	Wood fiber insulation	Celotex Corp. (with current NOA)
High Density Wood Fiberboard	various	PA 110	Wood fiber insulation board	Generic (with current NOA)
Fiberglas	various	PA 110	Fiber glass roof insulation	Johns Manville (with current NOA)
Paroc Cap Board	various	PA 110	Rockwool insulation	Partek, Inc. (with current NOA)
Perlite Insulation	various	PA 110	Perlite insulation board	Generic (with current NOA)


 Frank Zuloaga, RRC
 Roofing Product Control Examiner

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>	<u>Manufacturer</u>
Dens Deck	various	PA 110	Gypsum core / fiberglass faced coverboard	Georgia Pacific (with current NOA)
Asphalt Emulsion		PA 121	Asphalt emulsion	Gardner (with current NOA)
Gardner Cold Process Roof Cement Asphalt	1, 5, 55 gallons	ASTM D 3019 Type III	Fibered asphaltic general-purpose lap and ply cement.	Gardner (with current NOA)
Asphalt Primer		ASTM D 312	Type III or IV hot asphalt bitumen adhesive	Generic (with current NOA)
Asphalt Primer		ASTM D 41	Asphalt Primer	Generic (with current NOA)
Chopped fiberglass emulsion		ASTM D 1227	Roof Coating	Generic (with current NOA)
Fiberglass		PA 110	Fiber glass roof insulation	Generic (with current NOA)
Flashing Cement		ASTM D 4586 or ASTM D 2822	A trowel-grade, cutback bitumen cement mixture including inorganic fibers and mineral stabilizers.	Generic (with current NOA)
Modified Cold Process Cement		ASTM D 3019 Type III	Adhesive	Generic (with current NOA)
Modified Plastic Roof Cement		ASTM D4586 Type I	Flashing Cement	Generic (with current NOA)
Non Fibered Aluminum Coating		ASTM D 2824	Roof Coating	Generic (with current NOA)
Static Asphalt		ASTM D 1227	Roof Coating	Generic (with current NOA)
Fibered Emulsion		PA 121	Aluminum roof coating	Grundy Industries (with current NOA)
al MB aluminum roof coating		PA 121	Roof coating	Karnak (with current NOA)
Karnak 97, 97AF or 169		PA 121	Fibrated aluminum roof coating.	Monsey Products Co. (with current NOA)
Prograde Fibered Aluminum # 2100 - Modified All Weather Flashing Cement	1, 5, 55 gallons or 10.5 ounce tubes.	ASTM D 3019 (Type III) and D 3409	Rubberized all-weather flashing cement, trowel grade, modified adhesive.	Tropical Asphalt Products Corporation (with current NOA)
Aluma-Brite No. 120		PA 121	Fibrated aluminum roof coating.	Tropical Asphalt Products Corp. (with current NOA)
APOC 212		PA 121	Aluminum roof coating.	APOC, Subsidiary of Gardner (with current NOA)
Sunbright 400		PA 121	Roof coating	APOC, Subsidiary of Gardner (with current NOA)



Frank Zuloaga, RRC
Roofing Product Control Examiner

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>	<u>Manufacturer</u>
MBA		ASTM 3019 Type III	Asphalt based cold applied adhesive.	APOC, Subsidiary of Gardner (with current NOA)

Table 3

APPROVED FASTENERS:

<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer</u>
Dekfast S	Insulation fastener	Various	Construction Fasteners Inc. (with current NOA)
Olympic S	Insulation fastener	Various	Olympic Fasteners (with current NOA)
Insul-Fixx S	Insulation fastener	Various	SFS Stadler, Inc. (with current NOA)

EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Name</u>	<u>Report</u>	<u>Date</u>
Applied Research Laboratories	Physical Properties	28013	06/02/87
Factory Mutual Research Corporation	Current Insulation Fastening Requirements	FMRC 1994	01/01/95
Factory Mutual Research Corporation	PA 114 (FMRC 4470)	J.I. #3Y8A1.AM	03/23/96
Underwriters Laboratories, Inc.	Fire Classification Compliance	R11656	07/13/87
United States Testing Company, Exterior Research & Design, LLC	ASTM D 5147 TAS 114 (J)	97457-4 #3507.08.99-1	06/03/88 04/18/01



Frank Zuloaga, RRC
Roofing Product Control Examiner

SYSTEMS:

- Membrane Type:** APP MODIFIED
- Deck Type II:** Wood, Insulated, New Construction
- Deck Description:** 19/32" or greater plywood or wood plank
- System Type A (1):** Anchor sheet mechanically fastened; all layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

<u>Insulation Base Layer</u>	<u>Fastener Density/ft²</u>	<u>Fastener Type</u>
one or more layers of any of the following insulations under those listed as Top Layer:		
HyTherm, Apache Pyrox		
Minimum: 1.3" thick	N/A	N/A
ACFoam-II, UltraGard Gold, E'NRG'Y-1, E'NRG'Y-2, PSI-25		
Minimum: 1½" thick	N/A	N/A
Fiberglas		
Minimum: 1 ⁵ / ₁₆ " thick	N/A	N/A
Perlite		
Minimum: ¾" thick	N/A	N/A
High Density Wood Fiberboard		
Minimum: ½" thick	N/A	N/A
Dens-Deck		
Minimum: ¼" thick	N/A	N/A
one or more layers of any of the following insulations		
See Approved Insulations listed for Base Layer, above.		
Minimum: see Base Layer	N/A	N/A

Note: All insulation shall be adhered to the anchor sheet in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs. Please refer to Roofing Application Standard PA 117 for insulation attachment. Insulations listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

- Anchor Sheet:** One ply of Glas Base, Flex-I Glas Base, Flex-I Glas FR Base or Poly SMS base mechanically attached as detailed below.
- Fastening:** Anchor sheet shall be lapped 4" and fastened with approved roofing nails and tin caps 9" o.c. in the lap and two rows staggered in the center of the sheet 12" o.c.
- Base/Ply Sheet:** One ply of products listed under 'Anchor Sheet' above, or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Membrane:** Flintlastic STA, Flintlastic STA Plus 5.0, Flintlastic Diamond GTA, Flintlastic GTA or GTA-FR torch adhered to base or ply sheet.
- Surfacing:** (Optional) Install one of the following:
 1. 400-lb./sq. gravel or 300-lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq.
 2. Karnak 97, APOC 212 Fibrated Aluminum, Henry 520 Aluminum or Grundy AL MB at an application rate of 1 ½ gal. /sq.
- Maximum Design Pressure:** -45 psf (See General Limitation #9)



Frank Zuloaga, RRC
Roofing Product Control Examiner

- Membrane Type:** APP MODIFIED
- Deck Type II:** Wood, Insulated, New construction
- Deck Description:** Minimum ¹⁹/₃₂" thick plywood attached using wood screws spaced 6" o.c. at wood joists spaced maximum 24" o. c.
- System Type A (3):** Anchor sheet mechanically fastened; all layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

<u>Insulation Base Layer</u>	<u>Fastener Density/ft²</u>	<u>Fastener Type</u>
One or more layers of any of the followings insulations under those listed as Top layer:		
Hy-Therm, Apache Pyrox		
Minimum: 1.3" thick	N/A	N/A
ACFoam-II, E'NERG'Y-1, E'NERG'Y-2, PSI-25, UltraGard Gold		
Minimum: 1½" thick	N/A	N/A
Fiberglas		
Minimum: ¹⁵ / ₁₆ "	N/A	N/A
Perlite		
Minimum: ¾"	N/A	N/A
High Density Wood Fireboard		
Minimum : ½"	N/A	N/A
Dens-Deck		
Minimum : ¼"	N/A	N/A
One more layer of any of the following insulations		
See Approved Insulations listed for Base Layer, above		
Minimum : see base layer	N/A	N/A

Note: All insulation shall be adhered to the anchor sheet in full moppings of approved hot asphalt within the EVT range and at rate of 20-40 lbs. Please refer to Roofing Application Standard PA 117 for insulation attachment. Insulation listed as base only shall be used only as base layer 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.

- Anchor Sheet:** One ply of GlasBase, Flex-I-Glas Base, Flex-I Glas FR Base or All Weather/ Empire Base sheet mechanically attached as detailed below.
- Fastening:** Anchor sheet shall be lapped 4" and fastened with Simplex Mega Cap Nails spaced 9" o.c. in the lap and the 9" o.c. in two staggered rows in the center of the sheet.
- Base/Ply Sheet:** One Ply of products listed under 'Anchor Sheet' above, or one or more plies of Flintglas Ply Sheet (type IV) or Flintglas Premium Ply Sheet (type VI) adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40lbs. /sq.
- Membrane:** Flintlastic STA, Flintlastic STA Plus 5.0, Flintlastic Diamond GTA, Flintlastic GTA or GTA-FR torch adhered to base or ply sheet.
- Surfacing:** (Optional) Install one of the followings:
 1. 400lb. /sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60lb./sq.
 2. Karnak 97, Apoc212 Fibrated Aluminum, Henry 520 Aluminum or Grundy AL MB at an application rate of 1 ½" gal./sq.

Maximum Design Pressure: -60psf. (See General Limitation #7)



Frank Zuloaga, RRC
Roofing Product Control Examiner

- Membrane Type:** SBS MODIFIED
- Deck Type II:** Wood, Insulated, New Construction
- Deck Description:** 19/32" or greater plywood or wood plank
- System Type B (2):** Base layer of insulation mechanically attached, optional top layer adhered with approved asphalt.

All General and System Limitations apply.

<u>Insulation Base Layer</u>	<u>Fastener Density/ft²</u>	<u>Fastener Type</u>
one or more layers of any of the following insulations under those listed as Top Layer:		
HyTherm, Apache Pyrox		
Minimum: 1.3" thick	1:2 ft ²	Any approved fasteners listed in Table 3
ACFoam-II, UltraGard Gold		
Minimum: 1½" thick	1:2 ft ²	Any approved fasteners listed in Table 3
E'NRG'Y-2, PSI-25		
Minimum: 1.4" thick	1:2 ft ²	Any approved fasteners listed in Table 3
Dens-Deck		
Minimum: ¼" thick	1:2 ft ²	Any approved fasteners listed in Table 3
Fiberglas		
Minimum: 15/16" thick	1:2 ft ²	Any approved fasteners listed in Table 3
Perlite		
Minimum: ¾" thick	1:2 ft ²	Any approved fasteners listed in Table 3
High Density Wood Fiberboard		
Minimum: ½" thick	1:2 ft ²	Any approved fasteners listed in Table 3

Note: Base layer shall be mechanically attached with fasteners and density described above. 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 PA 117 for fastening details).

one or more layers of any of the following insulations

Any of the insulations listed for Base Layer, above.

Minimum: see Base Layer 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. Please refer to Roofing Application Standard PA117 for insulation attachment. Composite insulation boards used, as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: One ply of Glas Base, Flex-I Glas Base, Flex-I Glas FR Base, Poly SMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) or Ultra Poly SMS adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One ply of Glas Base, Flex-I-Glas Base, Flex-I-Glas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic FR Cap Sheet, Flexiglas Premium Cap 960 or Ultra Poly SMS adhered to ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic GTS torch adhered to ply sheet.

Surfacing: (Optional) Install one of the following:

1. 400-lb./sq. gravel or 300-lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq.
2. Karnak 97 or APOC 212 Fibrated Aluminum at an application rate of 1 ½ gal. /sq.

Maximum Design Pressure: -45 psf (See General Limitation #9)



Frank Zuloaga, RRC
Roofing Product Control Examiner

- Membrane Type:** APP MODIFIED
- Deck Type 1I:** Wood, Insulated, New Construction
- Deck Description:** 19/32" or greater plywood or wood plank
- System Type C (1):** All layers of insulation simultaneously attached.

All General and System Limitations apply.

<u>Insulation Base Layer</u>	<u>Fastener Density/ft²</u>	<u>Fastener Type</u>
one or more layers of any of the following insulations under those listed as Top Layer:		
HyTherm, Apache Pyrox		
Minimum: 1.3" thick	N/A	N/A
ACFoam-II, UltraGard Gold, E'NRG'Y-2, PSI-25		
Minimum: 1½" thick	N/A	N/A
Fiberglas		
Minimum: 1 ⁵ / ₁₆ " thick	N/A	N/A
Perlite		
Minimum: ¾" thick	N/A	N/A
High Density Wood Fiberboard		
Minimum: ½" thick	N/A	N/A
Dens-Deck		
Minimum: ¼" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density.

one or more layers of any of the following insulations

High Density Wood Fiberboard		
Minimum: ½" thick	1:2 ft ²	Any approved fasteners listed in Table 3
Perlite		
Minimum: ¾" thick	1:2 ft ²	Any approved fasteners listed in Table 3
Dens-Deck		
Minimum: ¼" thick	1:2 ft ²	Any approved fasteners listed in Table 3

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 PA117 for insulation attachment.

Base Sheet: One ply of Glas Base, Flex-I Glas Base, Flex-I Glas FR Base, Poly SMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One ply of Glas Base, Flex-I-Glas Base, Flex-I-Glas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: Flintlastic STA, Flintlastic STA Plus 5.0, Flintlastic Diamond GTA, Flintlastic GTA or GTA-FR torch adhered to base or ply sheet.

Surfacing: (Optional) Install one of the following:

1. 400-lb./sq. gravel or 300-lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq.
2. Karnak 97, APOC 212 Fibrated Aluminum, Henry 520 Aluminum or Grundy AL MB at an application rate of 1 ½ gal. /sq.

Maximum Design Pressure: -45 psf (See General Limitation #9)



Membrane Type: SBS MODIFIED
Deck Type 1I: Wood, Insulated, New Construction
Deck Description: 19/32" or greater plywood or wood plank
System Type C (2): All layers of insulation simultaneously attached.

All General and System Limitations apply.

<u>Insulation Base Layer</u>	<u>Fastener Density/ft²</u>	<u>Fastener Type</u>
one or more layers of any of the following insulations under those listed as Top Layer:		
HyTherm, Apache Pyrox		
Minimum: 1.3" thick	N/A	N/A
ACFoam-II, UltraGard Gold, E'NRG'Y-2, PSI-25		
Minimum: 1½" thick	N/A	N/A
Fiberglas		
Minimum: 15/16" thick	N/A	N/A
Perlite		
Minimum: ¾" thick	N/A	N/A
High Density Wood Fiberboard		
Minimum: ½" thick	N/A	N/A
Dens-Deck		
Minimum: ¼" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density.

one or more layers of any of the following insulations

High Density Wood Fiberboard		
Minimum: ½" thick	1:2 ft ²	Any approved fasteners listed in Table 3
Perlite		
Minimum: ¾" thick	1:2 ft ²	Any approved fasteners listed in Table 3
Dens-Deck		
Minimum: ¼" thick	1:2 ft ²	Any approved fasteners listed in Table 3

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 PA 117 for insulation attachment.

Base Sheet: One ply of Glas Base, Flex-I Glas Base, Flex-I Glas FR Base, Poly SMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) or Ultra Poly SMS adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One ply of Glas Base, Flex-I-Glas Base, Flex-I-Glas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic FR Cap Sheet, Flexiglas Premium Cap 960 or Ultra Poly SMS adhered to ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic GTS torch adhered to ply sheet.

Surfacing: (Optional) Install one of the following:

1. 400-lb./sq. gravel or 300-lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq.
2. Karnak 97 or APOC 212 Fibrated Aluminum at an application rate of 1 ½ gal. /sq.

Maximum Design Pressure: -45 psf (See General Limitation #9)



Frank Zuloaga, RRC
 Roofing Product Control Examiner

- Membrane Type:** APP MODIFIED
- Deck Type 1I:** Wood, Insulated, New Construction
- Deck Description:** 1 9/32" or greater plywood or wood plank
- System Type D (1):** All layers of insulation and base sheet simultaneously attached.

All General and System Limitations apply.

<u>Insulation Base Layer</u>	<u>Fastener Density/ft²</u>	<u>Fastener Type</u>
one or more layers of any of the following insulations:		
HyTherm, Apache Pyrox		
Minimum: 1.3" thick	N/A	N/A
ACFoam-II, UltraGard Gold, E'NRG'Y-2, PSI-25		
Minimum: 1 1/2" thick	N/A	N/A
Fiberglas		
Minimum: 1 5/16" thick	N/A	N/A
Perlite		
Minimum: 3/4" thick	N/A	N/A
High Density Wood Fiberboard		
Minimum: 1/2" thick	N/A	N/A
Dens-Deck		
Minimum: 1/4" thick	N/A	N/A

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

- Base Sheet:** One ply of Glas Base, Flex-I Glas Base, Flex-I Glas FR Base or Poly SMS base mechanically attached as detailed in Fastening #1, below or one ply of Poly SMS mechanically attached as detailed in Fastening #2 or #3, below.
- Fastening #1:** Olympic Screws #12 or #14 and metal plates, Dekfast #14 or #15 and metal plates or SFS Insul-Fixx #12 or #14 and metal plates spaced 4" o.c. at a 4" side lap and two staggered rows in the center of the sheet, 24" o.c.
- Fastening #2:** Olympic Screws #12 or #14 and metal plates, Dekfast #14 or #15 and metal plates or SFS Insul-Fixx #12 or #14 and metal plates spaced 12" o.c. at a 4" side lap and two staggered rows in the center of the sheet, 36" o.c.
- Fastening #3:** SFS Insul-Fixx screws and 2" round metal plates at a 4" side lap, 12" o.c.
- Ply Sheet:** (Optional) One ply of Glas Base, Flex-I-Glas Base, Flex-I-Glas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..
- Membrane:** Flintlastic STA, Flintlastic STA Plus 5.0, Flintlastic Diamond GTA, Flintlastic GTA or GTA-FR torch adhered to base or ply sheet.
- Surfacing:** (Optional) Install one of the following:
 1. 400-lb./sq. gravel or 300-lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq.
 2. Karnak 97, APOC 212 Fibrated Aluminum, Henry 520 Aluminum or Grundy AL MB at an application rate of 1 1/2 gal. /sq.

Maximum Design

Pressure: -45 psf (See General Limitation #9)



Frank Zuloaga, RRC
Roofing Product Control Examiner

- Membrane Type:** SBS MODIFIED
- Deck Type II:** Wood, Insulated, New Construction
- Deck Description:** 19/32" or greater plywood or wood plank
- System Type D (2):** All layers of insulation and base sheet simultaneously attached.

All General and System Limitations apply.

<u>Insulation Base Layer</u>	<u>Fastener Density/ft²</u>	<u>Fastener Type</u>
one or more layers of any of the following insulations:		
HyTherm, Apache Pyrox		
Minimum: 1.3" thick	N/A	N/A
ACFoam-II, UltraGard Gold, E'NRG'Y-2, PSI-25		
Minimum: 1½" thick	N/A	N/A
Fiberglas		
Minimum: 15/16" thick	N/A	N/A
Perlite		
Minimum: ¾" thick	N/A	N/A
High Density Wood Fiberboard		
Minimum: ½" thick	N/A	N/A
Dens-Deck		
Minimum: ¼" thick	N/A	N/A

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

- Base Sheet:** One ply of Glas Base, Flex-I Glas Base, Flex-I Glas FR Base or Poly SMS base mechanically attached as detailed in Fastening #1, below or one ply of Poly SMS mechanically attached as detailed in Fastening #2 or #3, below.
- Fastening #1:** Olympic Screws #12 or #14 and metal plates, Dekfast #14 or #15 and metal plates or SFS Insul-Fixx #12 or #14 and metal plates spaced 4" o.c. at a 4" side lap and two staggered rows in the center of the sheet, 24" o.c.
- Fastening #2:** Olympic Screws #12 or #14 and metal plates, Dekfast #14 or #15 and metal plates or SFS Insul-Fixx #12 or #14 and metal plates spaced 12" o.c. at a 4" side lap and two staggered rows in the center of the sheet, 36" o.c.
- Fastening #3:** SFS Insul-Fixx screws and 2" round metal plates at a 4" side lap, 12" o.c.
- Ply Sheet:** (Optional) One ply of Glas Base, Flex-I-Glas Base, Flex-I-Glas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) or Ultra Poly SMS adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..
- Membrane:** One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic FR Cap Sheet, Flexiglas Premium Cap 960 or Ultra Poly SMS adhered to ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic GTS torch adhered to ply sheet.
- Surfacing:** (Optional) Install one of the following:
 1. 400-lb./sq. gravel or 300-lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq.
 2. Karnak 97 or APOC 212 Fibrated Aluminum at an application rate of 1 ½ gal. /sq.
- Maximum Design Pressure:** -45 psf (See General Limitation #9)



Frank Zuloaga, RRC
Roofing Product Control Examiner

- Membrane Type:** APP MODIFIED
- Deck Type 1:** Wood, Non-insulated
- Deck Description:** ¹⁹/₃₂" or greater plywood or wood plank decks
- System Type E (1):** Base sheet mechanically fastened.

All General and System Limitations apply.

- Base Sheet:** One ply of Glas Base, Flex-I Glas Base, Flex-I Glas FR Base or Poly SMS base mechanically attached as detailed below.
- Fastening:** Base sheet shall be lapped 4" and fastened with approved roofing nails and tin caps 9" o.c. in the lap and two rows staggered in the center of the sheet 12" o.c.
- Ply Sheet:** (Optional) One ply of Glas Base, Flex-I-Glas Base, Flex-I-Glas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Membrane:** Flintlastic STA, Flintlastic STA Plus 5.0, Flintlastic Diamond GTA, Flintlastic GTA or GTA-FR torch adhered to base or ply sheet.
- Surfacing:** (Optional) Install one of the following:
1. 400-lb./sq. gravel or 300-lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq.
 2. Karnak 97, APOC 212 Fibrated Aluminum, Henry 520 Aluminum or Grundy AL MB at an application rate of 1 ½ gal. /sq.
- Maximum Design Pressure:** -45 psf (See General Limitation #9)



Frank Zuloaga, RRC
Roofing Product Control Examiner

- Membrane Type:** SBS MODIFIED
- Deck Type 1:** Wood, Non-insulated
- Deck Description:** ¹⁹/₃₂" or greater plywood or wood plank decks
- System Type E (2):** Base sheet mechanically fastened.

All General and System Limitations apply.

- Base Sheet:** One ply of Glas Base, Flex-I Glas Base, Flex-I Glas FR Base or Poly SMS base mechanically fastened as detailed below.
- Fastening:** Base sheet shall be lapped 4" and fastened with approved roofing nails and tin caps 9"o.c. in the lap and two rows staggered in the center of the sheet 12"o.c.
- Ply Sheet:** (Optional) One ply of Glas Base, Flex-I-Glas Base, Flex-I-Glas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) or Ultra Poly SMS adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Membrane:** One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic FR Cap Sheet, Flexiglas Premium Cap 960 or Ultra Poly SMS adhered to ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic GTS torch adhered to ply sheet
- Surfacing:** (Optional) Install one of the following:
1. 400-lb./sq. gravel or 300-lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq.
 2. Karnak 97 or APOC 212 Fibrated Aluminum at an application rate of 1 ½ gal./sq.
- Maximum Design Pressure:** -45 psf (See General Limitation #9)



Frank Zuloaga, RRC
Roofing Product Control Examiner

- Membrane Type:** APP MODIFIED
- Deck Type 1:** Wood, Non-insulated
- Deck Description:** Minimum $1\frac{9}{32}$ " thick plywood attached using wood screws spaced 6" o.c. at wood joists spaced maximum 24" o.c.
- System Type E (3):** Base sheet mechanically fastened.

All General and System Limitations apply.

- Base Sheet:** One ply of Glas Base, Flex-I Glas Base, Flex-I Glas FR Base or All Weather / Empire Base Sheet mechanically fastened as detailed below.
- Fastening:** Anchor sheet shall be lapped 4" and fastened with Simplex Mega Cap Nails spaced 9" o.c. in the lap and 9" o.c. in two staggered rows in the center of the sheet.
- Ply Sheet:** (Optional) One ply of GlasBase, Flex-I-GlasBase, Flex-I-Glas FR Base, PolySMS or one or more plies of FlintGlas Ply Sheet (Type IV) or FlintGlas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Membrane:** Flintlastic STA, Flintlastic Diamond GTA, Flintlastic GTA or GTA-FR torch adhered to base or ply sheet.
- Surfacing:** (Optional) Install one of the following:
1. 400-lb./sq. gravel or 300-lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq.
 2. Karnak 97 or APOC 212 Fibrated Aluminum, Henry 520 Aluminum or Grundy AL MB at an application rate of 1 $\frac{1}{2}$ gal./sq.
- Maximum Design Pressure:** -60 psf (See General Limitation #7)



Frank Zuloaga, RRC
Roofing Product Control Examiner

- Membrane Type:** SBS MODIFIED
- Deck Type 1:** Wood, Non-insulated
- Deck Description:** Minimum ¹⁹/₃₂" thick plywood attached using wood screws spaced 6" o.c. at wood joists spaced maximum 24" o.c.
- System Type E (4):** Base sheet mechanically fastened.

All General and System Limitations apply.

- Base Sheet:** One ply of GlasBase, Flex-I Glas Base, Flex-I Glas FR Base or All Weather/Empire Base Sheet mechanically fastened as detailed below.
- Fastening:** Anchor sheet shall be lapped 4" and fastened with Simplex Mega Cap Nails spaced 9" o.c. in the lap and 9" o.c. in two staggered rows in the center of the sheet.
- Ply Sheet:** (Optional) One ply of GlasBase, Flex-I-GlasBase, Flex-I-Glas FR Base, PolySMS or one or more plies of FlintGlas Ply Sheet (Type IV) or FlintGlas Premium Ply Sheet (Type VI) or Ultra Poly SMS adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Membrane:** One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic FR Cap Sheet, FlexiGlas Premium Cap 960 or Ultra Poly SMS adhered to ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40lbs. /sq. or Flintlastic GTS torch adhered to ply sheet.
- Surfacing:** (Optional) Install one of the following:
1. 400-lb./sq. gravel or 300-lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq.
 2. Karnak 97 or APOC 212 Fibrated Aluminum at an application rate of 1 ½ gal. /sq.
- Maximum Design Pressure:** -60 psf (See General Limitation #7)



Frank Zuloaga, RRC
Roofing Product Control Examiner

Membrane Type: N/A
Deck Type 8: Wood
Deck Description: 1⁹/₃₂" or greater plywood or wood plank
System Type F: System applied as tile underlayment for mechanically fastened tile.

All General and System Limitations apply.

Base Sheet: One ply of #30 asphalt saturated organic felt, All Weather/Empire Base, GlasBase, Flex-I Glas or Flex-I Glas FR Base mechanically fastened with approved roofing nails and tin caps, in accordance with PA 118, 119, & 120.

Ply Sheet: None.

Membrane: One ply of FlintGlas Mineral Surface Cap Sheet, Yosemite Mineral Surface Cap Sheet or Flintlastic GMS adhered to the base sheet with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or Flintlastic GTA torch applied or Black Diamond Base Sheet applied to the base sheet by peel and stick application.

Surfacing: None.

Maximum Design Pressure: See Tile Assembly NOA



Frank Zuloaga, RRC
Roofing Product Control Examiner

WOOD DECK SYSTEM LIMITATIONS:

1. Application shall be perpendicular to the slope on slopes of 1:12. All side laps shall be nailed 6" o.c.. All applications with a slope in excess of 1:12 shall be applied parallel with the slope (strapped) with end laps backnailed 6" o.c.
2. Yosemite® Mineral Surfaced Cap Sheet, #30 base sheet shall be used only with Yosemite Mineral Surface Cap Sheet.
3. All Weather/Empire Base Sheets may be used with all top ply membranes.
4. A slip-sheet is required with Ply 4 and Ply 6 when used as a mechanically fastened base or anchor sheet.

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 or Architect may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Miami-Dade County Testing Application Standards TAS 105 and calculations in compliance with Miami-Dade Roofing Application Standard RAS 117.
- 7 Perimeter and corner areas shall comply with the enhanced uplift pressure of these areas, as calculated in compliance with Chapter 23 of the South Florida Building Code. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Miami-Dade County 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 Miami-Dade County Roofing Application Standard RAS 111 and the wind load requirements of Chapter 23 of the South Florida Building Code.
- 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.)**



Frank Zuloaga, RRC
Roofing Product Control Examiner

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 2 through 22

END OF THIS ACCEPTANCE



Frank Zuloaga, RRC
Roofing Product Control Examiner