



MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING

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

PRODUCT CONTROL NOTICE OF ACCEPTANCE

Polyglass USA Inc.
150 Lyon Dr.
Fernley NV 89408

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

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

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

Your application for Product Approval of:

Polyglass Modified Bitumen Roofing Products over Lightweight Concrete Deck

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 approval shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at anytime 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 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.: 00-0622.01

Expires: 07/13/2003

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 Dade County, Florida under the conditions set forth above.

Francisco J. Quintana, R.A.
Director

Miami-Dade County
Building Code Compliance Office

Approved: 07/13/2000

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ROOFING ASSEMBLY APPROVAL

Category: Roofing
Sub-Category: SBS/APP/TPO, Modified Bitumen

Approval Date: July 13, 2000

Expiration Date: July 13, 2003

Deck Type: Lightweight Insulating Concrete
Maximum Design Pressure -60 psf
Fire Classification: See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Polyflex	32' 10" x 3' 3-3/8"	ASTM D 6222	Torch applied, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a smooth or sanded top surface.
Polyflex G	32' 10" x 3' 3-3/8"	ASTM D 6222	Torch applied, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a granule top surface.
Polyflex G FR	32' 10" x 3' 3-3/8"	ASTM D 6222	Torch applied, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a granule top surface and fire retardant chemistry.
Polybond	32' 10" x 3' 3-3/8"	ASTM D 6222	Torch applied, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a smooth or sanded top surface.
Polybond G	32' 10" x 3' 3-3/8"	ASTM D 6222	Torch applied, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a granule top surface.
Elastoflex S6	32' 10" x 3' 3-3/8"	ASTM D 6164	Torch, hot asphalt or cold adhesive applied, polyester reinforced, SBS modified bitumen membrane with a burn off polyethylene or sanded back face and a polyethylene or sanded top surface.
Elastoflex S6 G	32' 10" x 3' 3-3/8"	ASTM D 6164	Torch, hot asphalt or cold adhesive applied, polyester reinforced, SBS modified bitumen membrane with a burn off polyethylene or sanded back face and a granule top surface.
Elastoflex S6 G FR	32' 10" x 3' 3-3/8"	ASTM D 6164	Torch, hot asphalt or cold adhesive applied, polyester reinforced, SBS modified bitumen membrane with a burn off polyethylene or sanded back face and a granule top surface and fire retardant chemistry.
Elastoshield TS4	32' 10" x 3' 3-3/8"	ASTM D 6164	Torch, hot asphalt or cold adhesive applied, polyester reinforced, SBS modified bitumen membrane with a burn off polyethylene or sanded back face and a granule top surface.
Elastoshield TS4 FR	32' 10" x 3' 3-3/8"	ASTM D 6164	Torch, hot asphalt or cold adhesive applied, polyester reinforced, SBS modified bitumen membrane with a burn off polyethylene or sanded back face and a granule top surface and fire retardant chemistry.
Elastoflex V	32' 10" x 3' 3-3/8"	ASTM D 6163	Torch, hot asphalt or cold adhesive applied, fiberglass reinforced, SBS modified bitumen membrane with a burn off polyethylene or sanded back face and a sanded top surface.
Elastoflex VG	32' 10" x 3' 3-3/8"	ASTM D 6163	Torch, hot asphalt or cold adhesive applied, fiberglass reinforced, SBS modified bitumen

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Elastoflex VG FR	32' 10" x 3' 3-3/8"	ASTM D 6163	membrane with a burn off polyethylene or sanded back face and a granule top surface. Torch, hot asphalt or cold adhesive applied, fiberglass reinforced, SBS modified bitumen membrane with a burn off polyethylene or sanded back face and a granule top surface and fire retardant chemistry.
Xtraflex	32' 10" x 3' 6"	ASTM D 5147	Torch applied, polyester reinforced, TPO modified bitumen membrane with a burn off polyethylene back face and a smooth top surface.
Xtraflex G	32' 10" x 3' 6"	ASTM D 5147	Torch applied, polyester reinforced, TPO modified bitumen membrane with a burn off polyethylene back face and a granule top surface.
Xtraflex G FR	32' 10" x 3' 6"	ASTM D 5147	Torch applied, polyester reinforced, TPO modified bitumen membrane with a burn off polyethylene back face and a granule top surface and fire retardant chemistry.
Elastoflex SA-P FR	32' 6" x 3' 3-3/8"	ASTM D 6164	Self-adhered, polyester reinforced, SBS modified bitumen membrane with a self-adhering back face and a granule top surface.
Elastoflex SA-V FR Base	32' 6" x 3' 3-3/8"	ASTM D 6163	Self-adhered, fiberglass reinforced, SBS modified bitumen membrane with a self-adhering back face and a smooth top surface.
Elastoflex SA-V FR	32' 6" x 3' 3-3/8"	ASTM D 6163	Self-adhered, fiberglass reinforced, SBS modified bitumen membrane with a self-adhering back face and a granule top surface.
Elastobase	65' 2" x 3' 3-3/8"	ASTM D 4601	SBS modified asphalt coated fiberglass reinforced base sheet.
Polytherm A1	1.2" to 4" thick 4' x 4' or 8'	TAS 110	Polyisocyanurate insulation board.
Polytherm TF (Tapered)	1.5" to 3.5" thick 4' x 4' or 8'	TAS 110	Tapered polyisocyanurate insulation board.
Polytherm Composite	1.5" to 3.5" thick 4' x 4' or 8'	TAS 110	Polyisocyanurate/perlite composite insulation.

EVIDENCE SUBMITTED:

<u>Test Agency/Identifier</u>	<u>Report No.</u>	<u>Date</u>
Factory Mutual Research Corporation	J.I. 2W7A7.AM	08.04.94
	J.I. 3001334	02.15.00
	J.I. 3000857	01.12.00
	J.I. 3004091	01.12.00
Exterior Research & Design, LLC.	#11752.09.99-1	02.08.00



Frank Zuloaga, RRC
Roofing Product Control Examiner

APPROVED ASSEMBLIES:

- Deck Type 4I:** Lightweight Concrete, Insulated, New Construction
- Deck Description:** Miami-Dade Approved Cellular Lightweight Concrete
- System Type A:** Anchor sheet mechanically fastened; one or more layers of insulation fully adhered with approved asphalt.

All General and System Limitations apply.

- Anchor Sheet:** One ply of GAFGLAS #75 fastened to the deck as described below:
- Fastening:** Attach anchor sheet using ITW Buildex Lite Weight Concrete Fasteners spaced 7" o.c. in a 4" lap and 7" o.c. in two equally spaced staggered rows in the center of the sheet.

<u>Insulation (Optional) Base Layer</u>	<u>Fastener Type</u>	<u>Fastening Detail No.</u>	<u>Fasteners Per Board</u>	<u>Fastener Density</u>
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One or more layers of the following:

Approved Type(s): **ACFoam II, Hy-Therm AP Roof Insulation, Hy-Therm(a) AP Roof Insulation, Multi-Max FA, Polytherm A1, H-Shield, Tapered H-Shield**

Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
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<u>Insulation Top Layer</u>	<u>Fastener Type</u>	<u>Fastening Detail No.</u>	<u>Fasteners Per Board</u>	<u>Fastener Density</u>
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One or more layers of the following:

Approved Type(s): **Fiberbond**

Minimum: 5/8" x 4' x 8'	N/A	N/A	N/A	N/A
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Approved Type(s): **Armor Board Regular Fiberboard, Armor Board High Density Fiberboard, Esgard Fiberboard Roof Insulator, Celotex Fiberboard, Celotex High Density Fiberboard, Traffic Top Fiberboard, High Density Roof Fiberboard, GAFTEMP Fiberboard, GAFTEMP High Density Fiberboard, Huebert Fiberboard, Kop-R Wood Fiber, Fiber Base HD1, Fiber Base HD6, Structodek**

Minimum: 1/2" x 4' x 4'	N/A	N/A	N/A	N/A
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Approved Type(s): **Celotherm, ConPerl, GAFTEMP Permalite, Permalite or Fesco Board**

Minimum: 3/4" x 4' x 4'	N/A	N/A	N/A	N/A
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Approved Type(s): **Thermarroof Composite, Polytherm Composite**

Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
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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 Miami-Dade RAS No. 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 face down.

Base Sheet: (Optional if using 1 to 3 plies of ply sheet or self-adhered membranes noted below)
One ply of Elastobase, Modibase, Perma Ply No. 28 or GAFGLAS #75 adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One ply of Elastobase, Modibase or Perma Ply No. 28 or one to three plies of Type IV or VI ply sheet adhered to the coverboard in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq or Elastoflex SA V FR self adhered to a listed polyisocyanurate layer (no coverboard).

Membrane: One ply of Polyflex, Polflex G, Polyflex G FR, Polybond, Polybond G, Xtraflex, Xtraflex G or Xtraflex G FR torch applied or one ply of Elastoflex S6, Elastoflex S6 G, Elastoflex S6 G FR, Elastoshield TS4 or Elastoshield TS4 FR torch or hot asphalt applied or one ply of Elastoflex SA-P FR or Elastoflex SA-V FR self-adhered.

Surfacing: (Optional) Install one of the following to obtain required fire classification.

1. Gravel or slag at 400 lbs/sq or 300 lbs/sq, respectively, in a flood coat of approved asphalt at 60 lbs/sq.
2. Karnak 97 Fibrated Aluminum Asphalt Roof Coating or Asbestos Free Aluminum Roof Coating at 1½ gal/sq.
3. Kokem Products Sunguard Acrylic Roof Coating at 1 gal/sq.
4. Monsey Endure Aluminum Roof Coating, Weather Check or Pro-Grade Aluminum Roof Coating at 1½ gal/sq.
5. Grundy al MB Aluminum Roof Coating at 1-2 gal/sq.
6. Fields F350 Heat Shield Aluminum Coating or F630 Heat Shield Fibered Aluminum Coating at 1½ gal/sq.

Maximum Design Pressure: -45 psf; (See general limitation #7.)

Maximum Fire Classification: See general limitation #1.

Maximum Slope: See general limitation #1.



Deck Type 4: Lightweight Concrete, Non-insulated, New Construction

Deck Description: Miami-Dade Approved Cellular Lightweight Concrete

System Type E(1): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of GAFGLAS #75 fastened to the deck as described below:

Fastening: Attach base sheet using ITW Buildex Lite Weight Concrete Fasteners spaced 7" o.c. in a 4" lap and 7" o.c. in two equally spaced staggered rows in the center of the sheet.

Ply Sheet: (Optional) One ply of Elastobase, Modibase or Perma Ply No. 28 or one to three plies of Type IV or VI ply sheet adhered to the coverboard in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq or Elastoflex SA V FR self adhered to a listed polyisocyanurate layer (no coverboard).

Membrane: One ply of Polyflex, Polflex G, Polyflex G FR, Polybond, Polybond G, Xtraflex, Xtraflex G or Xtraflex G FR torch applied or one ply of Elastoflex S6, Elastoflex S6 G, Elastoflex S6 G FR, Elastoshield TS4 or Elastoshield TS4 FR torch or hot asphalt applied or one ply of Elastoflex SA-P FR or Elastoflex SA-V FR self-adhered.

Surfacing: (Optional) Install one of the following to obtain required fire classification

1. Gravel or slag at 400 lbs/sq or 300 lbs/sq, respectively, in a flood coat of approved asphalt at 60 lbs/sq.
2. Karnak 97 Fibrated Aluminum Asphalt Roof Coating or Asbestos Free Aluminum Roof Coating at 1½ gal/sq.
3. Kokem Products Sunguard Acrylic Roof Coating at 1 gal/sq.
4. Monsey Endure Aluminum Roof Coating, Weather Check or Pro-Grade Aluminum Roof Coating at 1½ gal/sq.
5. Grundy al MB Aluminum Roof Coating at 1-2 gal/sq.
6. Fields F350 Heat Shield Aluminum Coating or F630 Heat Shield Fibered Aluminum Coating at 1½ gal/sq.

Maximum Design Pressure: -45 psf; (See General Limitation #7.)

Maximum Fire Classification: See general limitation #1.

Maximum Slope: See general limitation #1.



Deck Type 4: Lightweight Concrete, Non-insulated, New Construction

Deck Description: Miami-Dade Approved Cellular or Aggregate Lightweight Concrete

System Type E(2): Membrane mechanically fastened.

All General and System Limitations apply.

Base Sheet: none.

Ply Sheet: none.

Membrane: One ply of Xtraflex G or Xtraflex G FR mechanically fastened with Dekfast #15 Heavy Fasteners and Dekfast 2.5 in. Seam Plates installed through the lightweight concrete to the underlying steel or structural concrete deck spaced 12" o.c. in the 6 inch wide heat welded side lap.

Surfacing: (Optional) Install one of the following to obtain required fire classification.

1. Gravel or slag at 400 lbs/sq or 300 lbs/sq, respectively, in a flood coat of approved asphalt at 60 lbs/sq.
2. Karnak 97 Fibrated Aluminum Asphalt Roof Coating or Asbestos Free Aluminum Roof Coating at 1½ gal/sq.
3. Kokem Products Sunguard Acrylic Roof Coating at 1 gal/sq.
4. Monsey Endure Aluminum Roof Coating, Weather Check or Pro-Grade Aluminum Roof Coating at 1½ gal/sq.
5. Grundy al MB Aluminum Roof Coating at 1-2 gal/sq.
6. Fields F350 Heat Shield Aluminum Coating or F630 Heat Shield Fibered Aluminum Coating at 1½ gal/sq.

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

Maximum Fire Classification: See general limitation #1.

Maximum Slope: See general limitation #1.

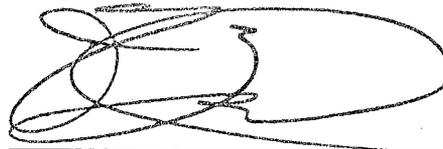


LIGHTWEIGHT INSULATING CONCRETE SYSTEM LIMITATIONS:

- 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 Miami-Dade County Testing Application Standard TAS 105 and Miami-Dade County Roofing Application Standard RAS 117.

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 TAS No. 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 TAS No. 105 and calculations in compliance with Miami-Dade RAS No. 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 increase for both insulation and base sheet as calculated in compliance with Miami-Dade RAS No. 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 RAS No. 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 1 through 9.

END OF THIS ACCEPTANCE



Frank Zuloaga, RRC
Roofing Product Control Examiner