



**BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION**

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

NOTICE OF ACCEPTANCE (NOA)

**Polyglass USA, Inc.
150 Lyon Drive
Fernley, NV 89408**

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

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

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

DESCRIPTION: Polyglass Modified Bitumen Roof System Over Concrete Decks

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA # 03-0612.12 and consists of pages 1 through 35.
The submitted documentation was reviewed by Frank Zuloaga, RRC



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ROOFING ASSEMBLY APPROVAL

Category: Roofing
Sub-Category: Modified Bitumen
Materials: SBS/APP/TPO
Deck Type: Concrete
Maximum Design Pressure: -622.5 psf (See Specific System Herein)
Fire Classification: See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
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.



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<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
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 membrane with a burn off polyethylene or sanded back face and a granule top surface.
Elastoflex VG FR	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 granule top surface and fire retardant chemistry.
Xtraflex	32' 10" x 3' 6"	ASTM D 6222	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 6222	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 6222	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.
Elastoflex SA V	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 G	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.
Elastoflex SA V G 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.
Elastoflex SA P	32' 6" x 3' 3-3/8"	ASTM D 6164	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.
Polyflex SA P	32' 6" x 3' 3-3/8"	ASTM D 6222	Self-adhered, polyester reinforced, APP modified bitumen membrane with a self-adhering back face and a granule top surface.



<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Polyflex SA P G FR	32' 6" x 3' 3-3/8"	ASTM D 6222	Self-adhered, polyester reinforced, APP modified bitumen membrane with a self-adhering back face and a granule top surface.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
Polytherm	Polyisocyanurate foam insulation	Polyglass USA, Inc.
Polytherm Composite	Polyisocyanurate/perlite composite insulation.	Polyglass USA, Inc.
ACFoam II	Polyisocyanurate foam insulation	Atlas Energy Products
ConPearl	Expanded perlite mineral fiber	Conglas
Esgard Fiberboard	Wood fiber board	EMCO Ltd.
GAF Permalite	Expanded mineral fiber	GAF Mat'l. Corp.
GAF Fiberboard	Wood fiber board	GAF Mat'l. Corp.
High Density Wood Fiberboard	Wood fiber insulation board	Generic
Perlite Insulation	Perlite insulation board	Generic
Dens-Deck	Gypsum insulation board	Georgia-Pacific
Armor Board Regular Fiberboard	Wood fiber board	Honeywell Int'l. Inc.
Armor Board High Density Wood Fiberboard	Wood fiber insulation board	Honeywell Int'l. Inc.
Hubert Fiberboard	Wood fiber board	Huebert Fiberboard, Inc.
ENRGY-2	Polyisocyanurate foam insulation	Johns Manville Corp.
Fesco Board	Expanded mineral fiber	Johns Manville Corp.
Kop-R Wood Fiber	Polyisocyanurate foam insulation	Koppers Industries, Inc.
Structodek, Structodek FS	Wood fiber board	Masonitec

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Polygrip Fasteners #14 & #15	Insulation fastener for wood, steel and concrete decks		Polyglass USA, Inc.



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APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
2.	Polygrip Hex Plate	Galvalume hex stress plate.	2 7/8" x 3-1/4"	Polyglass USA, Inc.
3.	Polygrip 2-1/2" Membrane Plate	Galvalume barbed stress plate	2.5" round	Polyglass USA, Inc.
4.	Dekfast Fasteners #14 & #15	Insulation fastener for wood, steel and concrete decks		Construction Fasteners Inc.
5.	Dekfast Hex Plate	Galvalume hex stress plate.	2 7/8" x 3 1/4"	Construction Fasteners Inc.
6.	Dekfast Autoset Plate	Galvalume stress plate.	2-7/8" x 3-1/4"	Construction Fasteners Inc.
7.	Dekfast 2 1/2" HS membrane Plate	Galvalume stress plate.	2.5" round	Construction Fasteners Inc.
8.	#14 & #15 Roofgrip Fasteners	Insulation fastener for wood, steel and concrete decks.		ITW Buildex Corp.
9.	Metal Plate	Galvalume stress plate.	3" round 3" square	ITW Buildex Corp.
10.	2-3/8" Round Barbed Seam Plates	Galvalume stress plate.	2-3/8" round	ITW Buildex Corp.
11.	#14 HD Insul-Fixx Fastener	Insulation fastener for wood, steel and concrete decks		SFS Stadler, Inc.
12.	Extra Load Fasteners	Insulation fastener for wood, steel and concrete decks		SFS Stadler, Inc.
13.	Insul-Fixx S Plate	Galvalume AZ50 steel plate	3" round	SFS Stadler, Inc.
14.	IF-2.375 Plates	Galvalume AZ55 steel plate	2.37" round	SFS Stadler, Inc.
15.	Tru-Fast HD	Insulation fastener for wood, steel and concrete decks		The Tru-Fast Corp.
16.	Tru-Fast Plates	3" round galvalume AZ55 steel plate	3" round	The Tru-Fast Corp.
17.	Tru-Fast MP-3	Round galvalume AZ50 steel plate	3.23 round 3" round	The Tru-Fast Corp.



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EVIDENCE SUBMITTED:

<u>Test Agency/Identifier</u>	<u>Report</u>	<u>Name</u>	<u>Date</u>
Factory Mutual Research Corp.	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
	#11772.08.00-1		08.14.00
	#11757.12.00-1		12.07.00
	#11757.04.01-1		
Underwriters Laboratory	00NK20869	TAS 114	06.08.00
Exterior Research & Design, LLC	#11776.06.02	TAS 114	06.13.02
	#11758.08.03		08.11.03



APPROVED ASSEMBLIES:

- Deck Type 3I:** Concrete Decks, Insulated, New Construction or Reroof
- Deck Description:** 2500 psi structural concrete or concrete plank
- System Type A:** All layers of insulation adhered with approved asphalt. Base sheet adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY-2, ACFoam-II, Polytherm Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Dens Deck Minimum ¼" thick	N/A	N/A
High Density Wood Fiberboard Minimum ½" thick	N/A	N/A
Fesco Board Minimum ¾" thick	N/A	N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of 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. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

- Base Sheet:** (Optional if using ply sheet in hot asphalt) 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 if using base sheet in hot asphalt) One ply of Polyflex, Polybond or Xtraflex torch applied or one ply of Elastobase, Modibase, Perma Ply No. 28, Elastoflex S6, Elastoflex V or Elastoflex V 2.5 or one or more 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.
- 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.



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 Fibrated Aluminum Coating at 1½ gal/sq.

Maximum Design
Pressure:

- 290 psf (for Fesco Board) (See General Limitation #9)
- 557.5 psf (for High Density Wood Fiberboard) (See General Limitation #9)
- 622.5 psf (for Dens Deck) (See General Limitation #9)



- Deck Type 3I:** Concrete Decks, Insulated, New Construction or Reroof
- Deck Description:** 2500 psi structural concrete or concrete plank
- System Type A(2):** All layers of insulation adhered to an adhered anchor sheet. Membrane is subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Any approved Polyisocyanurate Minimum 1.5" thick	N/A	N/A
(Optional) Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Dens Deck Minimum 1/4" thick	N/A	N/A
High Density Wood Fiberboard Minimum 1/2" thick	N/A	N/A
Fesco Board Minimum 3/4" thick	N/A	N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of 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. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

- Anchor Sheet:** Elastoflex SA Vent loose laid on primed concrete deck followed by one ply of Polyflex, Polybond or Xtraflex torch applied.
- Base Sheet:** (Optional if using ply sheet in hot asphalt) 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 if using base sheet in hot asphalt) One ply of Polyflex, Polybond or Xtraflex torch applied or one ply of Elastobase, Modibase, Perma Ply No. 28, Elastoflex S6, Elastoflex V or Elastoflex V 2.5 or one or more 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.
- 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.



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 Fibrated Aluminum Coating at 1½ gal/sq.

Maximum Design
Pressure:

-280 psf (See General Limitation #9)



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- Deck Type 3I:** Concrete Decks, Insulated, New Construction or Reroof
- Deck Description:** 2500 psi structural concrete or concrete plank
- System Type B(1):** Base layer of insulation mechanically fastened, optional top layer adhered with approved asphalt.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
H-Shield, H-Shield P, Polytherm or Polytherm Composite P Minimum 1.5" thick	1 or 4	1:4 ft²

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 RAS 117 for fastening details.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ConPerl, GAFTEMP Permalite, Permalite or Fesco Board Minimum 3/4" thick	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. Refer to RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: (Optional if using one or more 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 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 Polyflex SA P FR, Polyflex SA P, Elastoflex SA P, Elastoflex SA P FR, Elastoflex SA V G 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 Fibrated Aluminum Coating at 1½ gal/sq.

Maximum Design

Pressure:

-45 psf; (See general limitation #9.)



- Deck Type 3I:** Concrete Decks, Insulated, New Construction or Reroof
- Deck Description:** 2500 psi structural concrete or concrete plank
- System Type B(2):** Base layer of insulation mechanically fastened, top layer adhered with approved asphalt.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY-2 or Polytherm Minimum 1.5" thick	4 or 15	1:1.33 ft²

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 RAS 117 for fastening details.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
High Density Wood Fiberboard Minimum 1/2" thick	N/A	N/A
Fesco Board Minimum 3/4" thick	N/A	N/A

Note: Apply top layer of insulation in a full mopping of any approved mopping asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as Base Layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

- Base Sheet:** (Optional if using ply sheet in hot asphalt) 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 if using base sheet in hot asphalt) One ply of Polyflex, Polybond or Xtraflex torch applied or one ply of Elastobase, Modibase, Perma Ply No. 28, Elastoflex S6, Elastoflex V or Elastoflex V 2.5 or one or more 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 or Elastoflex SA V FR self adhered.
- 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 Polyflex SA P FR, Polyflex SA P, Elastoflex SA P Elastoflex SA P FR, Elastoflex SA V G 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 Fibrated Aluminum Coating at 1½ gal/sq.

Maximum Design
Pressure:

-90 psf; (See general limitation #7.)



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Deck Type 3I: Concrete Decks, Insulated, New Construction or Reroof

Deck Description: 2500 psi structural concrete or concrete plank

System Type C(1): All layers of insulation are mechanically attached to roof deck. Membrane is subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY-2, Polytherm Minimum 1.5" thick	4, 11 or 15	1:1.33 ft²

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: None

Ply Sheet: One ply of Elastoflex SA-V self adhered.

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-V followed by one layer of Elastoflex SA-P FR or Elastoflex SA-V FR self-adhered or one ply of Polyflex SA P FR, Polyflex SA P, Elastoflex SA P or Elastoflex SA V G

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 Fibrated Aluminum Coating at 1½ gal/sq.

Maximum Design Pressure: -82.5 psf; (See General limitation #7.)



Deck Type 3I: Concrete Decks, Insulated, New Construction or Reroof

Deck Description: 2500 psi structural concrete or concrete plank

System Type C(2): All layers of insulation are mechanically attached to roof deck. Membrane is subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Any approved Polyisocyanurate Minimum 1.5" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Dens-Deck Minimum 1/4" thick	4 or 15	1:1.33 ft²
High Density Wood Fiberboard Minimum 1/2" thick	4 or 15	1:1.33 ft²

Base Sheet: (Optional if using ply sheet in hot asphalt) 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 if using base sheet in hot asphalt) One ply of Polyflex, Polybond or Xtraflex torch applied or one ply of Elastobase, Modibase, Perma Ply No. 28, Elastoflex S6, Elastoflex V or Elastoflex V 2.5 or one or more 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 or Elastoflex SA V FR self adhered.

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 Polyflex SA P FR, Polyflex SA P, Elastoflex SA P, Elastoflex SA P FR, Elastoflex SA V G 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 Fibrated Aluminum Coating at 1½ gal/sq.

Maximum Design

Pressure: -82.5 psf; (See General limitation #7.)



Deck Type 3I: Concrete Decks, Insulated, New Construction or Reroof

Deck Description: 2500 psi structural concrete or concrete plank

System Type D(1): All layers of insulation and base sheet simultaneously attached.

All General and System limitations apply.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam II, Multi-Max FA, H-Shield, Tapered H-Shield, Thermaroom Composite, Polytherm Composite Minimum 1.5" thick	N/A	N/A
Fiberbond Minimum 5/8" thick	N/A	N/A
Armor Board Regular Fiberboard, Armor Board High Density Fiberboard, Esgard Fiberboard Roof Insulator, 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" thick	N/A	N/A
ConPerl, GAFTEMP Permalite, Permalite or Fesco Board Minimum 3/4" thick	N/A	N/A
Standard or Wide Flute Armor-R Glass, Standard or Wide Flute Fiberglas Roof Insulation, Standard or Wide Flute Fiber Glass Roof Insulation Minimum 15/16" thick	N/A	N/A

Note: Top layer shall have preliminary attachment, prior to installation of the base 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 sheet below for fasteners and density.

Base Sheet: One ply of Elastobase or Perma Ply No. 28 fastened to the deck as described below:

Fastening: Attach base sheet using CF Dekfast Hex Plates or Dekfast Autaset Plates with #14 Dekfast fasteners fasteners spaced 12" o.c. in a 4" lap and 18" o.c. in two equally spaced staggered rows in the center of the sheet.

Ply Sheet: (Optional) One ply of Elastobase or Perma Ply No. 28 adhered 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 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.



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 #9.)



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Deck Type 3I: Concrete Decks, Insulated, New Construction or Reroof

Deck Description: 2500 psi structural concrete or concrete plank

System Type D(2): All layers of insulation and base sheet simultaneously attached.

All General and System limitations apply.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
H-Shield, H-Shield-P, Polytherm, Polytherm Composite P, ACFoam II Minimum 1.5" thick	N/A	N/A
Fesco Board Minimum 3/4" thick	N/A	N/A
Flat Top Fiberboard, Esgard Fiberboard Roof Insulator, High Density Fiberboard, Huebert Fiberboard, Structodek, Fiberboard Roof Insulation Minimum 1" thick	N/A	N/A

Note: Top layer shall have preliminary attachment, prior to installation of the base 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 sheet below for fasteners and density.

Base Sheet: One ply of Polybond, Polyflex or Xtraflex mechanically fastened to the deck as described below:

Fastening #1: (Polybond or Polyflex only) Attach base sheet using Polygrip 2½" Membrane Plates and #14 Polygrip fasteners or Dekfast 2½" HS Membrane Plates and #14 Dekfast fasteners spaced 18" o.c. in a minimum 5" wide side lap. The side lap is either torch or hot air welded closed.
(Maximum Design Pressure –45 psf – See General Limitation #9.)

Fastening #2: (Polybond or Polyflex only) Attach base sheet using Polygrip 2½" Membrane Plates and #14 Polygrip fasteners or Dekfast 2½" HS Membrane Plates and #14 Dekfast fasteners spaced 12" o.c. in a minimum 6" wide side lap. The side lap is either torch or hot air welded closed.
(Maximum Design Pressure –82.5 psf – See General Limitation #7.)

Fastening #3: (Xtraflex only) Attach base sheet using Polygrip 2½" Membrane Plates and #14 Polygrip fasteners or Dekfast 2½" HS Membrane Plates and #14 Dekfast fasteners or Buildex 2-3/8" Round Barbed Seam Plates with #14 Roofgrip fasteners spaced 12" o.c. in a minimum 5" wide side lap. The side lap is either torch or hot air welded closed.
(Maximum Design Pressure –45 psf – See General Limitation #9.)

Ply Sheet: None.



Membrane: One ply of Polyflex, Polflex G, Polyflex G FR, Polybond, Polybond G, Xtraflex G or Xtraflex G FR torch applied.

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 Fibrated Aluminum Coating at 1½ gal/sq.

Maximum Design Pressure: See Fastening Options above



Deck Type 3I: Concrete Decks, Insulated, New Construction or Reroof

Deck Description: 2500 psi structural concrete or concrete plank

System Type D(3): All insulation is loosed laid with preliminay attachment to deck. Base sheet is subsequently mechanically fastened through insulation to the roof deck.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Any approved Polyisocyanurate Minimum 1" thick	N/A	N/A
(Optional) Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Fesco Board Minimum 3/4" thick	N/A	N/A
High Density Wood Fiber Minimum 1/2" thick	N/A	N/A
Dens Deck Minimum 1/4" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane 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.

Base Sheet: One ply of Elastobase Poly/Sand, Sand/Sand fastened to the deck as described below:

Fastening: Attach base sheet using Buildex #14 or #15 Roofgrip Fasteners and Flat Bottom Plates spaced 12" o.c. in a 4" lap and 12" o.c. in two equally spaced staggered rows in the center of the sheet.

Ply Sheet: (Optional) One ply of Polyflex, Polybond, or Xtraflex torch applied or one ply of Elastobase, Modibase, Perma Ply No. 28, Elastoflex S6, Elastoflex V or Elastoflex V 2.5 or one or more plies of Type IV or VI ply sheet adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Elastoflex SA-V self-adhered.

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 Polyflex SA P FR, Polyflex SA P, Elastoflex SA P, Elastoflex SA P FR, Elastoflex SA V G 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:

-60 psf; (See General limitation #7.)



Deck Type 3I: Concrete Decks, Insulated, New Construction or Reroof

Deck Description: 2500 psi structural concrete or concrete plank

System Type D(4): All insulation is loosed laid with preliminay attachment to deck. Base sheet is subsequently mechanically fastened through insulation to the roof deck.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Any approved Polyisocyanurate Minimum 1" thick	N/A	N/A
(Optional) Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Fesco Board Minimum 3/4" thick	N/A	N/A
High Density Wood Fiber Minimum 1/2" thick	N/A	N/A
Dens Deck Minimum 1/4" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane 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.

Base Sheet: One ply of Polyflex S fastened to the deck as described below:

Fastening: Attach base sheet using SFS Extra Load Fasteners and IF-2.375 Plates spaced 12" o.c. in a 5" heat welded side lap.

Ply Sheet: (Optional) One ply of Polyflex, Polybond, or Xtraflex torch applied

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 applied.



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:

-82.5 psf; (See General limitation #7.)



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Deck Type 3I: Concrete Decks, Insulated, New Construction or Reroof

Deck Description: 2500 psi structural concrete or concrete plank

System Type D(5): All insulation is loosed laid with preliminay attachment to deck. Base sheet is subsequently mechanically fastened through insulation to the roof deck.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Any approved Polyisocyanurate Minimum 1" thick	N/A	N/A
(Optional) Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Fesco Board Minimum ¾" thick	N/A	N/A
High Density Wood Fiber Minimum ½" thick	N/A	N/A
Dens Deck Minimum ¼" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane 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.

Base Sheet: One ply of Polybond S, Polyflex S or Elastoshield Smooth fastened to the deck as described below:

Fastening: Attach base sheet using CF Dekfast #14 Fasteners and Dekfast Hex platex or Buildex Roof grip with Flat Bottom Plates spaced 12" o.c. in a 4" lap and 18" o.c. in two equally spaced staggered rows in the center of the sheet.

Ply Sheet: (Optional) One ply of Polyflex, Polybond, or Xtraflex torch applied or one ply of Elastobase, Modibase, Perma Ply No. 28, Elastoflex S6, Elastoflex V or Elastoflex V 2.5 or one or more plies of Type IV or VI ply sheet adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

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.



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 Fibrated Aluminum Coating at 1½ gal/sq.

Maximum Design
Pressure:

-112.5 psf; (See General limitation #7.)



Deck Type 3I: Concrete Decks, Insulated, New Construction or Reroof

Deck Description: 2500 psi structural concrete or concrete plank

System Type D(6): All insulation is loosed laid with preliminay attachment to deck. Base sheet is subsequently mechanically fastened through insulation to the roof deck.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Any approved Polyisocyanurate Minimum 1" thick	N/A	N/A
(Optional) Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Fesco Board Minimum 3/4" thick	N/A	N/A
High Density Wood Fiber Minimum 1/2" thick	N/A	N/A
Dens Deck Minimum 1/4" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane 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.

Base Sheet: One ply of CertainTeed Glasbase, Polyglass base, Firestone MB Base, JM Perma-Ply 28, Tamko Glass Base or GAFGLAS #75 fastened to the deck as described below:

Fastening: Attach base sheet using CF Dekfast #14 or #15 Fasteners and Dekfast Hex platex or Tru-Fast HD or XHD with MP-3 Plates spaced 12" o.c. in a 4" lap and 12" o.c. in two equally spaced staggered rows in the center of the sheet.

Ply Sheet: (Optional) One ply of Polyflex, Polybond, or Xtraflex torch applied or one ply of Elastobase, Modibase, Perma Ply No. 28, Elastoflex S6, Elastoflex V or Elastoflex V 2.5 or one or more plies of Type IV or VI ply sheet adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

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.



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 Fibrated Aluminum Coating at 1½ gal/sq.

Maximum Design
Pressure:

-52.5 psf; (See General limitation #7.)



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Deck Type 3: Concrete Decks, Non-Insulated, New Construction or Reroof

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(1): Optional base sheet fully adhered with approved asphalt.

All General and System Limitations apply.

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet.

Base Sheet: (Optional) One ply of Elastobase or Perma Ply No. 28 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 or Perma Ply No. 28 adhered 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 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.

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 #9.)



Deck Type 3: Concrete Decks, Non-Insulated, New Construction or Reroof

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(2): Optional base sheet self-adhered.

All General and System Limitations apply.

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet.

Base Sheet: (Optional) One ply of Elastoflex SA V FR Base self-adhered to the primed deck.

Ply Sheet: none.

Membrane: One ply of Polyflex SA P FR, Elastoflex SA P FR or Elastoflex SA V FR self-adhered to the base sheet or to the primed deck.

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 Fibrated Aluminum Coating at 1½ gal/sq.

Maximum Design Pressure: -315 psf; (See General Limitation #9.)



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Deck Type 3: Concrete Decks, Non-Insulated, New Construction or Reroof

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(3): Optional base sheet torch applied to deck.

All General and System Limitations apply.

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet.

Base Sheet: (Optional) One ply of Xtraflex torch applied to the primed deck.

Ply Sheet: none.

Membrane: One ply of Xtraflex G FR torch applied to the base sheet or to the primed deck.

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: -180 psf; (See General Limitation #9.)



Deck Type 3: Concrete Decks, Insulated, New Construction or Reroof

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(4): Membrane adhered to roof deck

All General and System Limitations apply.

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet.

Base Sheet: Elastoflex SA Vent loose laid on primed concrete deck.

Ply Sheet: (Optional) One ply of Polyflex, Polybond, or Xtraflex torch applied.

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.

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: -280 psf; (See General Limitation #9.)



Deck Type 3: Concrete Decks, Insulated, New Construction or Reroof

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(5): Membrane adhered to roof deck

All General and System Limitations apply.

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet.

Base Sheet: (Optional) One or more plies of Elastobase or ASTM D4601 Type II base sheet 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 Polyflex, Polybond or Xtraflex torch applied or one ply of Elastobase, Modibase, Perma Ply #28, Elastoflex S6, Elastoflex V or Elastoflex V 2.5 applied in hot asphalt or one or more plies of ASTM D2178 Type IV or VI ply sheet adhered in hot asphalt.

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.

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: -622.5 psf; (See General Limitation #9.)



CONCRETE 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 Professional Engineer, Registered Architect, or Registered Roof Consultant.

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 Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant (When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). (When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)

END OF THIS ACCEPTANCE



NOA No.: 03-0915.06
Expiration Date: 07/13/08
Approval Date: 03/18/04
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