



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION

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www.miamidade.gov/economy

Soprema, Inc.
310 Quadral Drive
Wadsworth, OH 44281

SCOPE:

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

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

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

DESCRIPTION: Soprema Modified Bitumen Roofing Systems over Lightweight Insulating 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 No. 10-0408.08 and consists of pages 1 through 35.

The submitted documentation was reviewed by Jorge L. Acebo.



NOA No.: 11-0203.01
Expiration Date: 12/31/14
Approval Date: 06/20/13
Page 1 of 35

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Modified Bitumen
Material: SBS
Deck Type: Lightweight Insulating Concrete
Maximum Design Pressure: -262.5 psf

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>
Sopra G	39" x 108' (3.5 sq.)	ASTM D4601	Fiberglass reinforced oxidized asphalt base sheet for bonding or mechanically attaching to substrate. For use as a base/ply sheet only.
Modified Sopra G	39" x 108' (3.5 sq.)	ASTM D4601	Fiberglass reinforced modified asphalt base sheet for bonding or mechanically attaching to substrate. For use as a base/ply sheet only.
Soprabase	39" x 99' (3 sq.)	ASTM D4601	Oxidized asphalt, polyester reinforced, sand-surfaced base sheet. For use as a base/ply sheet only.
Soprabase S	39" x 65' (2 sq.)	ASTM D4601	SBS modified bitumen, polyester reinforced, sand-surfaced base sheet. For use as a base/ply sheet only.
Soprabase TG	39" x 65' (2 sq.)	ASTM D4601	SBS modified bitumen, polyester reinforced, film-surfaced base sheet. For use as a base/ply sheet only.
Sopra IV	36" x 180' (5 sq.)	ASTM D2178 Type IV	Type IV, fiberglass reinforced, smooth surfaced ply sheet used in multi-ply systems and complies with ASTM and UL Standards. Applied in hot asphalt or cold adhesive.
Sopra VI	36" x 180' (5 sq.)	ASTM D2178 Type VI	Type VI, fiberglass reinforced, smooth surfaced plysheet used in multi-ply systems and complies with ASTM and UL Standards. Applied in hot asphalt or cold adhesive.
Colvent TG	39" x 49' (1.5 sq.)	ASTM D6163	Fiberglass reinforced, modified bitumen membrane with 1" wide factory applied heat weldable strips on back side.
Colvent 180 TG	39" x 33' (1 sq.)	ASTM D6164	Polyester reinforced, modified bitumen membrane with 1" wide factory applied heat weld strips on back side.
Elastophene Sanded	39" x 49' (1.5 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping.



<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Elastophene Sanded 3.0	39" x 33' (1sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripped.
Elastophene HS Sanded	39" x 66' (2 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane with fire retardants and sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping.
Elastophene PS	39" x 49' (1.5 sq.)	ASTM D6163	Glass reinforced modified bitumen membrane with a plastic burn-off film for heat weld bonding to the top side. Applied in hot asphalt, cold adhesive or ribbon stripping.
Elastophene PS 3.0	39" x 49' (1.5sq.)	ASTM D6163	Glass reinforced modified bitumen membrane with a plastic burn-off film for heat weld bonding to the top side. Applied in hot asphalt, cold adhesive or ribbon stripping.
Elastophene SP	39" x 49' (1.5 sq.)	ASTM D6163	Glass reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Elastophene SP 3.0	39" x 49' (1 sq.)	ASTM D6163	Glass reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Elastophene Flam	39" x 33' (1 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane covered on both sides with a plastic burn-off film. Applied by heat welding.
Elastophene Flam 2.2	39" x 49' (1.5 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane covered on both sides with a plastic burn-off film. Applied by heat welding.
Elastophene Flam HS	39" x 33' (1 sq.)	ASTM D6162	Woven fiberglass/polyester composite reinforced modified bitumen membrane with fire retardants and plastic burn-off film on both sides. Applied by heat welding.
Elastophene 180 Sanded	39" x 49' (1.5 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping.
Elastophene 180 PS	39" x 49' (1.5 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with a sanded bottom and a plastic burn-off film on the top. Applied in hot asphalt, cold adhesive or ribbon stripping.

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Elastophene GR	39" x 33' (1 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane with fire retardants, sanded on the bottom and mineral granules on the top. Applied in hot asphalt, cold adhesive or ribbon stripping.
Elastophene LS FR GR	39" x 33' (1 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane with fire retardants, sanded on the bottom and mineral granules on the top. Applied in hot asphalt, cold adhesive or ribbon stripping.
Elastophene FR GR	39" x 33' (1 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane with fire retardants, sanded on the bottom and mineral granules on the top. Applied in hot asphalt, cold adhesive or ribbon stripping.
Elastophene FR+ GR	39" x 33' (1 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane with fire retardants, sanded on the bottom and mineral granules on the top. Applied in hot asphalt, cold adhesive or ribbon stripping.
Elastophene HS FR GR	39" x 33' (1 sq.)	ASTM D6162	Woven fiberglass/polyester composite reinforced modified bitumen membrane with fire retardants, sanded on the bottom and mineral granules on the top. Applied in hot asphalt, cold adhesive or ribbon stripping.
Elastophene Flam GR	39" x 33' (1 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane with fire retardants, a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding.
Elastophene Flam LS FR GR	39" x 33' (1 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane with fire retardants, a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding.
Elastophene Flam FR GR	39" x 33' (1 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane with fire retardants a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding.
Elastophene Flam FR+ GR	39" x 33' (1 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane with fire retardants a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding.
Elastophene Flam HS FR GR	39" x 33' (1 sq.)	ASTM D6162	Woven fiberglass composite reinforced modified bitumen membrane with fire retardants, a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Sopralene 180 Sanded	39" x 33' (1 sq.) 39" x 26' (¾ sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping.
Sopralene 250 Sanded	39" x 33' (1 sq.) 39" x 26' (¾ sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping.
Sopralene 180 Sanded 2.2	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt or cold adhesive.
Sopralene 180 PS	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with a plastic burn-off film on the top and sanded on the bottom.
Sopralene 180 PS 2.2	39" x 49' (1.5 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with a sanded bottom and a plastic burn-off film on the top. Applied in hot asphalt, cold adhesive or ribbon stripping.
Sopralene 180 SP 3.5	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Sopralene 180 SP	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top
Sopralene 250 SP	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top
Soprafix [S]	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane. Applied by mechanical attachment.
Soprafix Base 612	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane. Applied by mechanical attachment.
Soprafix [F]	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane. Applied by mechanical attachment.
Soprafix Base 613	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane. Applied by mechanical attachment.
Soprafix [X]	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane. Applied by mechanical attachment.
Soprafix Base 614	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane. Applied by mechanical attachment.

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Soprafix	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with a 4-inch or 5-inch wide side lap with a plastic burn-off film on the bottom and sanded on the top. Applied by mechanical attachment. Lap heat welded or sealed with an approved cold adhesive.
Soprafix Base 622	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with a 4-inch or 5-inch wide side lap with a plastic burn-off film on the bottom and sanded on the top. Applied by mechanical attachment. Lap heat welded or sealed with an approved cold adhesive.
Soprafix-e	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with a 5-inch wide side lap with a self-adhering compound and release film and sanded on the bottom and top surfaces. Applied by mechanical attachment. Lap self-adhered or sealed with approved cold adhesive.
Soprafix Base 641	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with a 5-inch wide side lap with a self-adhering compound and release film and sanded on the bottom and top surfaces. Applied by mechanical attachment. Lap self-adhered or sealed with approved cold adhesive.
Sopralene Flam 180	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced SBS modified bitumen membrane, both sides covered with a plastic burn-off film. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Sopralene Flam 250	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced SBS modified bitumen membrane, both sides covered with a plastic burn-off film. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Sopralene 180 FR GR	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with fire retardants a sanded bottom and a mineral granules top. Applied in hot asphalt, cold applied adhesive or ribbon stripping (after removal of plastic burn-off film).
Sopralene 250 FR GR	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with fire retardants a sanded bottom and a mineral granules top. Applied in hot asphalt, cold applied adhesive or ribbon stripping (after removal of plastic burn-off film).



<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Sopralene Flam 180 GR	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Sopralene Flam 180 FR GR	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with fire retardants a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Sopralene Flam 250 FR GR	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with fire retardants a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Sopralene Flam 180 FR+ GR	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with fire retardants a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Sopralene Flam 250 FR+ GR	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with fire retardants a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Sopralast 50 TV Alu	various	ASTM D6298	Fiberglass reinforced modified bitumen sheeting faced with aluminum foil. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Soprapstar Flam	39" x 33' (1 sq.)	ASTM D6162	Polyester reinforced SBS modified bitumen membrane with a plastic burn-off film on the bottom side and a reflective white top surface. Applied by heat welding.
Soprapstar Sanded	39" x 33' (1 sq.)	ASTM D6162	Stabilized polyester mat reinforced SBS modified bitumen membrane with a sanded bottom side and a reflective white top surface. Applied by hot asphalt or cold adhesive.

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
UNILAY	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with fire retardants and surfaced with mineral granules. Applied by mechanical attachment, heat welding or ribbon stripping (after removal of plastic burn-off film).
Sopralene Stick	39" x 33' (1 sq.)	ASTM D6164	Self-adhered, polyester reinforced membrane with a release film on the bottom and a sanded top.
Sopralene Flam Stick	39" x 33' (1 sq.)	ASTM D6164	Self-adhered, polyester reinforced membrane with a release film on the bottom and a plastic burn-off film on the top.
Elastocol 500	various	ASTM D41	Asphalt primers.
Elastocol Stick	various	ASTM D41	Asphalt primers.
ALSAN Flashing™	1.25 gallon pail or 3.75 gallon pail	Proprietary	One part polyurethane/bitumen resin, moisture cure compound.
ALSAN Polyfleece	4", 8" or 39" wide by 50' long	Proprietary	Non-woven polyester reinforcement used in the ALSAN Flashing system.
SBS Elastic Cement	5 gallon pail	Proprietary	Elastomeric bitumen based mastic compound.
Soprawalk	39" x 26' (3/4 sq.)	Proprietary	Non-woven polyester reinforced modified bitumen membrane with a sanded bottom and mineral granules on the top. Applied by hot asphalt, cold adhesive or ribbon stripping.
FM Adhesive	5 gallon pail, 55 gallon drum or 350 gallon tote	Proprietary	Plastomeric bitumen based cold adhesive.
FM Adhesive (VOC)	5 gallon pail, 55 gallon drum or 350 gallon tote	Proprietary	Elastomeric bitumen based cold adhesive.
COLPLY Modified Adhesive	5 gallon pail, 55 gallon drum or 350 gallon tote	Proprietary	Elastomeric bitumen based cold adhesive.
Soprastar Adhesive	5 gallon pail or 55 gallon drum	Proprietary	SBS modified bitumen based cold adhesive.

APPROVED INSULATIONS:

Product Name	Product Description	Manufacturer (With Current NOA)
Sopraboard	Mineral fortified asphaltic cored coverboard	Soprema, Inc.



APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Tri-Fix Fastening System	Fastening system for base sheet attachment to lightweight concrete, gypsum or cementitious wood fiber decks.	3” diameter plate with various length fasteners	Soprema, Inc.
2.	Soprema #12, #14 & #15 Fasteners	Fasteners for membrane or insulation attachment to wood, steel or concrete decks.		Soprema, Inc.
3.	Dekfast #12, #14 & #15 HS Fastener	Insulation fastener		SFS Intec, Inc.
4.	Twin Loc-Nails	Base ply fastening systems for lightweight concrete, gypsum or cementitious wood fiber decks		ES Products, Inc.
5.	FM-90 Assembled Base Sheet Fasteners	Base ply fastening systems for lightweight concrete decks		ES Products, Inc.
6.	OMG CR Assembled Base Sheet Fasteners	Base ply fastening assembly		OMG, Inc.
7.	ES Products Batten Bar-TL	Batten bar		ES Products, Inc.
8.	OMG Polymer Batten Strip-TL	Modified polymer batten bar		OMG, Inc.
9.	OMG Heavy Duty	Insulation fastener		OMG, Inc.
10.	Galvalume Steel 3” Round Insulation Plate	Galvalume AZ50 steel plate	3” round	SFS Intec, Inc.
11.	Dekfast Coiled Batten Strip	Batten bar		SFS Intec, Inc.
12.	Soprema 3” Round Insulation Plate	Stress plate	3” diameter	Soprema, Inc.
13.	Soprafix 2-3/8” SB Stress Plate	Stress plate	2- ³ / ₈ ” diameter	Soprema, Inc.
14.	Soprafix MBB-R	Metal Batten Bar		Soprema, Inc.
15.	Soprema #14 MP, #15 HD Fastener	Insulation and membrane fasteners		Soprema, Inc.
16.	Tru-Fast Twin-Loc Batten Bar	Batten bar		Altenloh, Brinck & Co. U.S., Inc.
17.	Dekfast Galvalume Steel Round 2-3/8” 20 ga. Barbed plates	Galvalume AZ55 steel barbed plate	2.37” Round	SFS Intec, Inc.
18.	OMG XHD	Insulation fastener		OMG, Inc.
19.	Soprema 3” Metal Insulation Plate	Stress plate	3” diameter	Soprema, Inc.



APPROVED SURFACING/COATING OPTIONS:

TABLE 4

Chosen components must be applied according to manufacturer's application instructions. Any coating, listed below, used as a surfacing, must be listed within a current NOA.

System Number	Manufacturer	Application
1.	Generic	Gravel applied at 400 lbs./sq., adhered with flood coat of asphalt at 60 lbs./sq.
2.	Generic	Slag applied at 300 lbs./sq., adhered with flood coat of asphalt at 60 lbs./sq.
3.	Soprema, Inc.	Gravel applied at 400 lbs./sq., adhered with FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at 4 gal/sq.
4.	Karnak Corporation	Karnak #97 Fibrated Aluminum Roof Coating applied at an application rate of 1.5 gal/sq.
5.	Soprema, Inc.	Cural Aluminizer applied at an application rate of 2 gal/sq.
6.	Thermo Manufacturing Systems, LLC	Super Prep Roof Coating applied in two coats at an application rate of 1.5 gal/sq./coat.
7.	United Coatings Manufacturing Company	Roof Mate Coating, applied in one base coat at a rate of 1.5 gal/sq., and one finish coat at a rate of 1.5 gal/sq.
8.	Insulating Coatings Corporation	Astec 2000 Finish Coat applied in two base coats at a rate of 0.75 gal/sq./coat and two finish coats at a rate of 0.75 gal/sq./coat.
9.	Henry Company	HE280DC White Elastomeric Roof Coating applied in two coats at an application rate of 1 gal/sq./coat.
10.	National Coating Corp.	Acryshield® A500 applied in two coats at an application rate of 1 gal/sq./coat.
11.	Soprema, Inc.	R-Nova Roof Coating
12.	Generic	Semi-ceramic coated colored granules.

EVIDENCE SUBMITTED:

<u>Test Agency/Identifier</u>	<u>Name</u>	<u>Report</u>	<u>Date</u>
Atlantic & Caribbean Roof Consulting	ACRC 03-008	TAS 114	07.11.03
Factory Mutual Research Corporation	0PA2.AM	FM 4470	11.29.89
	2P2A7.AM	FM 4470	11.29.89
	1W8A1.AM	FM 4470	07.15.93
	1Z3A6.AM	FM 4470	04.27.95
	152A1.AM	FM 4470	11.28.84
	2D0A0.AM	FM 4470	08.15.97
	3001334	FM 4470	01.25.00
	3002351	FM 4470	02.28.03
	3014614	FM 4470	02.27.06
	3023749	FM 4470	09.28.06
	3029098	FM 4470	10.25.07
	3032109	FM 4470	07.21.08
	3045101	FM 4470	11.05.12
	Dynatech Engineering Corp.	10.94.27	TAS 114
2491-04.95		TAS 114	01.04.95
Exterior Research & Design, LLC.	2003.02.97-1	TAS 114	02.15.97
	2003-2.04.97-1	TAS 114	04.15.97
	2002.07.97-1	TAS 114	08.15.97
	2716.05.98-1	TAS 114	05.11.98
	2738.10.00-1	TAS 114	10.20.02
	2109.08.02	TAS 114	08.06.02
	2766.12.03	TAS 114	12.01.03
	2760.12.04-R1	TAS 114	12.23.04
Trinity ERD	S6740.11.07	ASTM D6163	11.02.07
	S12370.03.09-1	ASTM D6164	03.06.09
	S12370.03.09-2	ASTM D6164	03.06.09
	S12370.03.09-3	ASTM D6162	03.06.09
	S11440.06.10	ASTM D4798 & TAS 110	06.01.10
	S11440.01.11-R1	ASTM D6164	06.07.12
	S11440.11.10-4	ASTM D2178	11.17.10
	S11440.11.10-3-R1	ASTM D4601	01.30.13
	S11440.12.10-1-R1	ASTM D6163	06.07.12
	S32700.12.10	ASTM D6162	12.15.10
	S35860.12.11-1	ASTM D2178	12.12.11
	S35860.12.11-2	ASTM D4601	12.12.11
	S35860.05.12-1-R1	ASTM D6163	06.07.12
	S35860.05.12-2-R1	ASTM D6164	06.07.12
	S35860.05.12-3	ASTM D6164	05.08.12
IRT of S. Florida, Inc.	990028	TAS 114	09.30.99
	02-031	TAS 114	09.06.02



<u>Test Agency/Identifier</u>	<u>Name</u>	<u>Report</u>	<u>Date</u>
IRT-Arcon, Inc.	IRT06002	TAS 114-J	02.18.06
	IRT06056	TAS 114-J	09.21.06
PRI Construction Materials Technologies	SOP-049-02-01	ASTM D1644/D2196	05.31.12
	SOP-043-02-01	ASTM D4601	02.27.12
	SOP-042-02-01	ASTM D4601	02.27.12
	SOP-041-02-01	ASTM D2178	02.27.12
	SOP-040-02-01	ASTM D2178	02.27.12
	SOP-010-02-01.03	TAS-138	07.26.11
	SOP-050-02-01	ASTM D3019	07/12/12
Certified Testing Laboratories	CTLA 101R	TAS 114-J	09.23.08



APPROVED ASSEMBLIES:

- Membrane Type:** SBS
- Deck Type 4I:** Lightweight Concrete, Insulated
- Deck Description:** Celcore Cellular Lightweight Insulating Concrete, Min. 200 psi
- System Type C:** All layers of insulation simultaneously attached.

All General and System Limitations apply.

Deck: Minimum 22 ga. type BW36-22 slotted steel decking attached to supports spaced 5' o.c. maximum using 5/8" puddle welds (every bottom flute). Steel deck side laps are attached with three Traxx 1 #10 evenly spaced between supports. Or structural concrete deck.

Separator Sheet: One layer of Elastophene Flam, Elastophene Flam 2.2 or Sopralene Flam 180 loose laid over the deck prior to application of the insulation layer.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Sopraboard Minimum 1/8" thick	2 & 12	1:1.33 ft²

Note: Insulation is fastened through the separator sheet and lightweight concrete to the structural deck. See insulation layer 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.

Primer: Elastocol 500, Elastocol Stick or AquaTac applied at a rate of 1 gal/sq., to top surface of any base or ply sheet prior to application of next layer
(Optional)

Base Sheet: One layer of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP, Elastophene SP 3.0, Sopralene Flam 180*, Sopralene 180 SP 3.5, Soprafix, Soprafix Base 622, Sopralene Flam 250*, Sopralene 250 SP, Colvent TG, Colvent 180 TG, heat welded

Or

One layer of Elastophene Sanded, Elastophene Sanded 3.0, Elastophene HS Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 Sanded, Sopralene 180 Sanded 2.2, Elastophene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS*, Sopralene 250 Sanded, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 25 lbs./sq.

*Requires heat welded ply or cap membrane.

Ply Sheet: Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP, Elastophene SP 3.0, Sopralene Flam 180*, Sopralene 180 SP 3.5, Soprafix, Soprafix Base 622, Sopralene Flam 250*, Sopralene 250 SP, heat welded.
(Optional)



**Ply Sheet:
(Optional)
(Cont.)**

Or

Elastophene Sanded, Elastophene Sanded 3.0, Elastophene HS Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 Sanded, Sopralene 180 Sanded 2.2, Elastophene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS*, Sopralene 250 Sanded, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 25 lbs./sq.

*Requires heat welded cap membrane.

Membrane:

One layer of Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Elastophene Flam HS FR GR, Soprastar Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, heat welded.

Or

One layer of Elastophene GR, Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Elastophene HS FR GR, Soprastar Sanded, Sopralene 180 FR GR, Sopralene 250 FR GR, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 25 lbs./sq. to sand surfaced base or ply membrane.

Surfacing:

Surfacing is Optional on granular surfaced field cap membranes.

Surfacing is Required for smooth or sanded surfaced field cap membranes.

Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications.

Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.

**Maximum Design
Pressure:**

-82.5 psf. (See General Limitation #7.)

Membrane Type: SBS
Deck Type 4: Lightweight Concrete, Non-Insulated
Deck Description: Cellular or Aggregate Lightweight Concrete, 300 psi. min.
System Type E(1): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of Soprafix [S]*, Soprafix Base 612*, Soprafix [F]*, Soprafix Base 613*, Soprafix [X]* or Soprafix Base 614* fastened to the deck as described. Attach base sheet using Tri-Fixx Fasteners spaced 10” o.c. in a 5” lap. The side lap fastener row is encapsulated in the heat welded lap.

*Requires heat welded ply or cap membrane.

**Ply Sheet:
(Optional)** One ply of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene Flam 180*, Sopralene Flam 250*, Sopralene 180 SP, Sopralene 250 SP, heat welded.

*Requires heat welded cap membrane.

Membrane: Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam FR+GR, Elastophene Flam LS FR GR, Soprapstar Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 250 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR+ GR, or Sopralast 50 TV Alu, torch applied.

Surfacing: Surfacing is Optional on granular surfaced field cap membranes.
Surfacing is Required for smooth or sanded surfaced field cap membranes.
Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications.
Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.

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

Membrane Type: SBS
Deck Type 4: Lightweight Concrete, Non-Insulated
Deck Description: Elastizell Range II Cellular Lightweight Insulating Concrete, Min. 200 psi, min. 2½” thick top coat
Or
Cellular Concrete, LLC. (Mearlcrete) Lightweight Insulating Concrete, Min. 250 psi, min. 2” thick top coat
System Type E(2): Base sheet mechanically fastened.

All General and System Limitations apply.

Deck: Minimum 22 ga. type BW36-22 slotted steel decking attached to supports spaced 5’ o.c. maximum using 5/8” puddle welds (every bottom flute). Steel deck side laps are attached with three Traxx 1 #10 evenly spaced between supports. Or structural concrete deck.

Primer: Elastocol 500, Elastocol Stick or AquaTac applied at a rate of 1 gal/sq., to top surface of any base or ply sheet prior to application of next layer.
(Optional)

Base Sheet: One ply Sopra G or Modified Sopra G fastened to the deck as described. Attach base sheet using ES Products FM-90 Assembled Base Sheet Fasteners or OMG CR Assembled Base Sheet Fasteners (1.7”) spaced 7” o.c. in a 4” lap and 7” o.c. in two staggered rows in the center of the sheet.

Ply Sheet: One ply of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP, Elastophene SP 3.0, Sopralene Flam 180*, Sopralene 180 SP 3.5, Soprafix, Soprafix Base 622, Sopralene Flam 250*, Sopralene 250 SP, heat welded.

Or

One ply of Elastophene Sanded, Elastophene Sanded 3.0, Elastophene HS Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 Sanded, Sopralene 180 Sanded 2.2, Elastophene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS*, Sopralene 250 Sanded, or one to three plies of Sopra IV or Sopra VI ply sheet, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive, or Soprastar Adhesive at 1.5 – 2.0 gallons/square to sand surfaced base membrane.

*Requires heat welded cap membrane.

Membrane: One layer of Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Elastophene Flam HS FR GR, Soprastar Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, heat welded.

Or



**Membrane:
(Cont.)** Elastophene GR, Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Elastophene HS FR GR, Soprastar Sanded, Sopralene 180 FR GR, Sopralene 250 FR GR, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at 1.5 – 2.0 gallons/square to sand surfaced ply membrane.

Surfacing: Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.

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

Membrane Type: SBS
Deck Type 4: Lightweight Concrete, Non-Insulated
Deck Description: Cellular or Aggregate Lightweight Concrete, 250 psi. min.
System Type E(3): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of Sopra G, Modified Sopra G, Soprabase, Soprabase S fastened to the deck as described below:

Fastening: Attach anchor sheet using OMG CR Assembled Base Sheet Fasteners or ES FM-90 Assembled Base Sheet Fasteners spaced 7" o.c. in a 4" lap and 7" o.c. in two staggered rows in the center of the sheet.

Ply Sheet: One ply of Elastophene Sanded, Elastophene 180 Sanded, Sopralene 180 Sanded 2.2, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 PS*, Sopralene 180 Sanded, Sopralene 250 Sanded or one or more plies of Sopra IV or Sopra VI ply sheets adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base membrane.

*Requires heat welded cap membrane.

Membrane: Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam FR+GR, Elastophene Flam LS FR GR, Soprastar Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 250 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR+ GR, or Sopralast 50 TV Alu, heat welded

Or

Elastophene FR GR, Elastophene LS FR GR, Elastophene GR, Soprastar Flam, Sopralene 180 FR GR, Sopralene 250 FR GR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced ply membrane.

Surfacing: Surfacing is Optional on granular surfaced field cap membranes.
Surfacing is Required for smooth or sanded surfaced field cap membranes.
Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications.
Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.

Maximum Design Pressure: -52.5 psf. (See General Limitation #7.)



Membrane Type: SBS
Deck Type 4: Lightweight Concrete, Non-Insulated
Deck Description: Elastizell Range II Cellular Lightweight Insulating Concrete, Min. 200 psi, min. 2½” thick top coat
Or
Cellular Concrete, LLC. (Mearlcrete) Lightweight Insulating Concrete, Min. 250 psi, min. 2” thick top coat
System Type E(4): Base sheet mechanically fastened.

All General and System Limitations apply.

Deck: Minimum 22 ga. type BW36-22 slotted steel decking attached to supports spaced 5’ o.c. maximum using 5/8” puddle welds (every bottom flute). Steel deck side laps are attached with three Traxx 1 #10 evenly spaced between supports. Or structural concrete deck.

**Primer:
(Optional)** Elastocol 500, Elastocol Stick or AquaTac applied at a rate of 1 gal/sq., to top surface of any base or ply sheet prior to application of next layer

Base Sheet: One ply of Soprafix [S]*, Soprafix Base 612*, Soprafix [F]*, Soprafix Base 613*, Soprafix [X]*, Soprafix Base 614*, Soprafix, Soprafix Base 622, Soprafix-e or Soprafix Base 641 fastened to the deck as described below.

*Requires heat welded ply membrane.

Fastening #1: Attach base sheet using Tri-Fix Fastening System spaced 9” o.c. in a 5” lap. The side lap fastener row is encapsulated in the heat welded lap.

(Maximum Design Pressure –45 psf – See General Limitation #7.)

Fastening #2: Attach base sheet using Tri-Fix Fastening System spaced 8” o.c. in a 5” lap and 8” o.c. in one center row. The side lap fastener row is encapsulated in the heat welded lap and the center row is stripped-in with a min. 6” wide strip of heat welded membrane.

(Maximum Design Pressure –67.5 psf – See General Limitation #7.)

Ply Sheet: One ply of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene Flam 180*, Sopralene Flam 250*, Sopralene 180 SP, Sopralene 250 SP, heat welded

Or

One ply of Elastophene Sanded, Elastophene 180 Sanded, Sopralene 180 Sanded 2.2, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 PS*, Sopralene 180 Sanded, Sopralene 250 Sanded or one to three plies of Sopra IV or Sopra VI ply sheet, adhered in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or SopraStar Adhesive at 1.5 – 2.0 gallons/square to sand surfaced base membrane.

*Requires heat welded cap membrane.

Membrane: Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Elastophene Flam HS FR GR, Soprastar Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, heat welded.

Or

Elastophene GR, Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Elastophene HS FR GR, Soprastar Sanded, Sopralene 180 FR GR, Sopralene 250 FR GR, adhered in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at 1.5 – 2.0 gallons/square to sand surfaced ply membrane.

Surfacing: Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.

Maximum Design Pressure: See Fastening Requirements above.

Membrane Type: SBS
Deck Type 4: Lightweight Concrete, Non-Insulated
Deck Description: Cellular Concrete, LLC. Lightweight Insulating Concrete, 300 psi. min
System Type E(5): Base sheet mechanically fastened.

All General and System Limitations apply.

Deck: Minimum 22 ga., type BV steel decking attached to support spaced at 5' o.c. maximum using 3/8" puddle welds with washer (every bottom flute). Steel deck side laps are attached three Traxx 1 #10 evenly spaced between supports or structural concrete deck.

Base Sheet: One ply of Soprafix, Soprafix Base 622, Soprafix-e, Soprafix Base 641, Soprafix [S]*, Soprafix Base 612*, Soprafix [F]*, Soprafix Base 613*, Soprafix [X]* or Soprafix Base 622* fastened to the deck as described below:

*Requires heat welded cap membrane.

Fastening #1: Attach base sheet using Tri-Fixx Fasteners spaced 9" o.c. in a 5" lap. The side lap fastener row is encapsulated in the heat welded lap.

(Maximum Design Pressure –45 psf – See General Limitation #7.)

Fastening #2: Attach base sheet using Tri-Fixx Fasteners spaced 8" o.c. in a 5" lap and 8" o.c. in one center rows. The side lap fastener row is encapsulated in the heat welded lap and the center row is stripped-in with an 8" wide strip of torch applied membrane.

(Maximum Design Pressure –67.5 psf – See General Limitation #7.)

**Ply Sheet:
(Optional)** One ply of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene Flam 180*, Sopralene Flam 250*, Sopralene 180 SP, Sopralene 250 SP, heat welded.

*Requires heat welded cap membrane.

Membrane: Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam FR+GR, Elastophene Flam LS FR GR, SopraStar Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 250 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR+ GR, or Sopralast 50 TV Alu, heat welded.

Surfacing: Surfacing is Optional on granular surfaced field cap membranes.
Surfacing is Required for smooth or sanded surfaced field cap membranes.
Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications.
Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.

Maximum Design Pressure: See Fastening Requirements above

Membrane Type: SBS
Deck Type 4: Lightweight Concrete, Non-Insulated
Deck Description: Elastizell Range II Cellular/Hybrid Lightweight Insulating Concrete
Min. 200 psi, min. 2½” thick top coat
System Type E(6): Base sheet mechanically fastened.

All General and System Limitations apply.

Deck: Minimum 22 ga. type BW36-22 slotted steel decking attached to supports spaced 5’ o.c. maximum using 5/8” puddle welds (every bottom flute). Steel deck side laps are attached with three Traxx 1 #10 evenly spaced between supports. Or structural concrete deck.

**Primer:
(Optional)** Elastocol 500, Elastocol Stick or AquaTac applied at a rate of 1 gal/sq., to top surface of any base or ply sheet prior to application of next layer.

Base Sheet: One ply Sopra G or Modified Sopra G fastened to the deck as described. Attach base sheet using ES Products FM-90 Assembled Base Sheet Fasteners or OMG CR Assembled Base Sheet Fasteners (1.7”) spaced 9” o.c. in a 4” lap and 9” o.c. in two staggered rows in the center of the sheet.

Ply Sheet: One ply of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP, Elastophene SP 3.0, Sopralene Flam 180*, Sopralene 180 SP 3.5, Soprafix, Soprafix Base 622, Sopralene Flam 250*, Sopralene 250 SP, heat welded.

Or

One ply of Elastophene Sanded, Elastophene Sanded 3.0, Elastophene HS Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 Sanded, Sopralene 180 Sanded 2.2, Elastophene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS*, Sopralene 250 Sanded, or one to three plies of Sopra IV or Sopra VI ply sheet, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at 1.5 – 2.0 gallons/square to sand surfaced base membrane.

*Requires heat welded cap membrane.

Membrane: One layer of Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Elastophene Flam HS FR GR, Soprastar Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, heat welded.

Or

One layer of Elastophene GR, Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Elastophene HS FR GR, Soprastar Sanded, Sopralene 180 FR GR, Sopralene 250 FR GR, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at 1.5 – 2.0 gallons/square to sand surfaced ply membrane.



Surfacing: Surfacing is Optional on granular surfaced field cap membranes.
Surfacing is Required for smooth or sanded surfaced field cap membranes.
Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications.
Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.

Maximum Design Pressure: -52.5 psf. (See General Limitation #7.)



Membrane Type: SBS
Deck Type 4: Lightweight Concrete, Non-Insulated
Deck Description: Cellular or Aggregate Lightweight Concrete, 300 psi. min.
System Type E(7): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of Sopra G, Soprabase, Soprabase S or Soprabase TG fastened to the deck as described. Attach base sheet using ES Products Twin Loc-Nails spaced 9” o.c. in a 4” lap and 9” o.c. in two staggered rows in the center of the sheet.

**Ply Sheet:
(Optional)** One ply of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene Flam 180*, Sopralene Flam 250*, Sopralene 180 SP, Sopralene 250 SP, heat welded.

Or

One ply of Elastophene Sanded, Elastophene 180 Sanded, Sopralene 180 Sanded 2.2, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 PS*, Sopralene 180 Sanded, Sopralene 250 Sanded or one or more plies of Sopra IV or Sopra VI ply sheets, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base membrane.

*Requires heat welded cap membrane.

Membrane: Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam FR+GR, Elastophene Flam LS FR GR, Soprastar Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 250 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR+ GR, or Sopralast 50 TV Alu, heat welded

Or

Elastophene FR GR, Elastophene LS FR GR, Elastophene GR, Soprastar Sanded, Sopralene 180 FR GR, Sopralene 250 FR GR, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base or ply membrane.

Surfacing: Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.

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



Membrane Type: SBS

Deck Type 4: Lightweight Concrete, Non-Insulated

Deck Description: Celcore HS Cellular Concrete; minimum wet cast density of 38 lbs./ft³, over 18-22 ga steel decking

System Type E(8): Base sheet mechanically fastened

All General and System Limitations apply.

Structural Deck: 18-22 ga. steel decking attached to supports spaced maximum 6' o.c. using 0.5" puddle welds and washers 6" o.c. Steel deck side laps are attached with three Traxx/1 fasteners spaced maximum 12" o.c.

LWC Deck: Celcore HS Cellular Concrete with a minimum wet cast density of 38 lbs./ft³, minimum 2" thick top coat. Over a minimum 1" thick EPS Holey Board.

LWC Deck Preparation: Celcore PVA Curing Compound spray applied to lightweight concrete at a rate of 0.33 gal/sq.

Base Layer: One ply of Soprafix, Soprafix Base 622, Soprafix-e or Soprafix Base 641 mechanically attached through lightweight concrete to steel decking with Dekfast Galvalume Steel Round 2-3/8" 20-Ga Barbed Plates and Dekfast #15 HS fasteners or Soprema #15 Fasteners with Soprafix 2-3/8" –SB Stress Plates space maximum 12" o.c. through minimum 5" wide laps and maximum 12" o.c. in one central row in the field. A minimum 6" wide strip of Sopralene Flam 180* is heat welded over field fasteners.
*Requires heat welded ply or cap membrane.

Ply Sheet: (Optional) Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP, Elastophene SP 3.0, Sopralene Flam 180*, Sopralene 180 SP 3.5, Soprafix, Soprafix Base 622, Sopralene Flam 250*, Sopralene 250 SP, heat welded.
*Requires heat welded cap membrane.

Membrane: One layer of Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, SopraStar Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 250 FR GR, Sopralast 50 TV Alu, heat welded with minimum 3" wide laps.

Surfacing: Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.

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



Membrane Type: SBS
Deck Type 4: Lightweight Concrete, Non-Insulated
Deck Description: Cellular or Aggregate Lightweight Concrete, 300 psi. min.
System Type E(9): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of Soprabase, Soprabase S fastened to the deck as described. Attach base sheet using ES Products Twin Loc-nails spaced 9" o.c. in a 4" lap and 9" o.c. in two staggered rows in the center of the sheet.

Ply Sheet: One ply of Elastophene Sanded, Elastophene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded, Sopralene 250 Sanded or one or more plies of Sopra IV or Sopra VI ply sheets adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base membrane.

Membrane: Elastophene FR GR, Elastophene LS FR GR, Elastophene GR, Soprastar Sanded, Sopralene 180 FR GR, Sopralene 250 FR GR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced ply membrane.

Surfacing: Surfacing is Optional on granular surfaced field cap membranes.
Surfacing is Required for smooth or sanded surfaced field cap membranes.
Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications.
Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.

Maximum Design Pressure: -75 psf. (See General Limitation #7)

Membrane Type: SBS
Deck Type 4: Lightweight Concrete, Non-Insulated
Deck Description: Concrecel Lightweight Insulating Concrete with ARBS Perimeter Blocking System
System Type E(10): Base sheet mechanically fastened.

All General and System Limitations apply.

Deck: Minimum 22 ga. vented B deck attached to supports spaced 6' o.c. maximum using washers and 5/8" puddle welds (at each 1.5" wide rib). Steel deck side laps are attached with Tek 1 screws #12-.75" maximum spacing 6" o.c.
16 ga. ARBS Perimeter Blocking System secured with .75" dia. Metal washers and #12-1.5" Tek 2 screws maximum spacing 12" o.c., additionally, ARBS lengths are joined with 6" concealed splice plates fastened with #8-5/8" Tek 2 screws (2 at each side).

Primer: Elastocol 500, Elastocol Stick or AquaTac applied at a rate of 1 gal/sq., to top surface of any base or ply sheet prior to application of next layer.
(Optional)

Base Sheet: One ply Soprabase, Soprabase S, Soprabase TG base sheet fastened to the deck as described. Attach base sheet using OMG CR Assembled Base Sheet Fasteners spaced 7" o.c. in a 4" lap and 7" o.c. in two staggered rows in the center of the sheet.

Ply Sheet: One ply of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP, Elastophene SP 3.0, Sopralene Flam 180*, Sopralene 180 SP 3.5, Soprafix, Soprafix Base 622, Sopralene Flam 250*, Sopralene 250 SP, heat welded.

Or

One ply of Elastophene Sanded, Elastophene Sanded 3.0, Elastophene HS Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 Sanded, Sopralene 180 Sanded 2.2, Elastophene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS*, Sopralene 250 Sanded, or one to three plies of Sopra IV or Sopra VI ply sheet, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprapstar Adhesive at 1.5 – 2.0 gallons/square to sand surfaced base membrane.

*Requires heat welded cap membrane.

Membrane: One layer of Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Elastophene Flam HS FR GR, Soprapstar Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, heat welded.

Or



Membrane: One layer of Elastophene GR, Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Elastophene HS FR GR, Soprastar Sanded, Sopralene 180 FR GR, Sopralene 250 FR GR, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at 1.5 – 2.0 gallons/square to sand surfaced ply membrane.

Surfacing: Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.

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



Membrane Type: SBS
Deck Type 4: Lightweight Concrete, Non-Insulated
Deck Description: Cellular Concrete, LLC. Lightweight Insulating Concrete, 300 psi. min
System Type E(11): Base sheet mechanically fastened.

All General and System Limitations apply.

Deck: Lightweight Concrete shall be cast over the following substrate: Minimum 18 ga., type 3N steel decking attached to minimum ½” thick, W14 x 43 purlins with an 8” wide top flange spaced maximum 9 ft. o.c. using ¾” puddle welds or Buildex Traxx 5 fasteners spaced 8” o.c. (every bottom flute). Two welds or screws per attachment point, spaced 4” apart. Steel deck side laps are attached 24” o.c. or Structural Concrete deck.

Base Sheet: One ply of Soprafix [X]*, Soprafix Base 614* or Sopralene Flam 250* fastened through the lightweight concrete to the deck using SFS Dekfast #15 HS Fasteners with approved, 70 mm round, plates spaced 16” o.c. in a 5” wide lap and 16” o.c. in one center row. The side lap fastener row is encapsulated in the torched/heat fused lap and the center row is stripped-in with and 8” wide strip of heat welded membrane.

*Requires heat welded ply or cap membrane.

**Ply Sheet:
(Optional)** One ply of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene Flam 180*, Sopralene Flam 250*, Sopralene 180 SP, Sopralene 250 SP, heat welded.

*Requires heat welded cap membrane.

Membrane: Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam FR+GR, Elastophene Flam LS FR GR, Sopraplast Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 250 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR+ GR, or Sopralast 50 TV Alu, heat welded.

Surfacing: Surfacing is Optional on granular surfaced field cap membranes.
Surfacing is Required for smooth or sanded surfaced field cap membranes.
Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications.
Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.

Maximum Design Pressure: -112.5 psf. (See General Limitation #7)



Membrane Type: SBS
Deck Type 4: Lightweight Concrete, Non-Insulated
Deck Description: Elastizel Range II lightweight Insulating Concrete, 300 psi. min
System Type E(12): Base sheet mechanically fastened.

All General and System Limitations apply.

Deck: Structural Concrete deck or Min. 22 ga., Type B steel decking over ¼” thick steel supports spaced max. 5 ft. o.c. attached 6” o.c. using min. 5/8” diameter puddle welds with washers or Traxx/5 fasteners. Deck side laps are attached 15” o.c. using Traxx/1 fasteners. Deck is covered with an Elastizel Range II lightweight concrete pour consisting of a 1/8” slurry coat, minimum 2” thick Holey Board and a minimum 3” thick top coat.

Base Sheet: One ply of Soprafix [S]*, Soprafix Base 612, Soprafix [F]*, Soprafix Base 613, Soprafix [X]* or Soprafix Base 614 fastened to the deck as described. Attach base sheet using Tri-Fixx Fasteners spaced 8” o.c. in a 5” lap and 8” o.c. in one center row. The side lap fastener row is encapsulated in the heat welded lap and the center row is stripped-in with a 6” wide strip of heat welded membrane.
*Requires heat welded ply or cap membrane.

**Ply Sheet:
(Optional)** One ply of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene Flam 180*, Sopralene Flam 250*, Sopralene 180 SP, Sopralene 250 SP, heat welded.
*Requires heat welded cap membrane.

Membrane: Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam FR+GR, Elastophene Flam LS FR GR, Sopraplast Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 250 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR+ GR or Sopralast 50 TV Alu, heat welded.

Surfacing: Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.

Maximum Design Pressure: -112.5 psf. (See General Limitation #7)



Membrane Type: SBS
Deck Type 4: Lightweight Concrete, Non-Insulated
Deck Description: Celcore Cellular Concrete, over 18-22 ga steel decking
System Type E(13): Base sheet mechanically fastened

All General and System Limitations apply.

Structural Deck: 18-22 ga. steel deck type B, BV attached to supports spaced maximum 5' o.c. ITW Buildex Driller Screw fasteners with nickel plated washers spaced maximum 6" o.c. Steel deck side laps are attached with ITW Buildex Driller Screw fasteners spaced maximum 12" o.c.

LWC Deck: Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture with a minimum wet cast density of 38 lbs./ft³, minimum 2" thick top coat. Over a minimum 1" thick Insulfoam EPS Holey Board.

LWC Deck Preparation: Celcore PVA Curing Compound spray applied to lightweight concrete at a rate of 0.5 gal/sq.

Base Layer: One layer of Soprafix [S] or Soprafix Base 612 mechanically attached through LWC into steel decking, perpendicular to the direction of the steel decking with OMG Heavy Duty Batten Bar and OMG XHD Fasteners, spaced in the following pattern: 6" x 12" x 6", repeated until end of batten is reached, within a heat welded minimum 3" side lap and one row in the field of the sheet with OMG Heavy Duty Batten Bar and OMG XHD Fasteners spaced 12" o.c. Apply a 6" wide strip of Soprafix [S] or Soprafix Base 612 heat welded over the exposed center row of fasteners.

Membrane: Apply one layer of Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 250 FR GR, heat welded with minimum 3" wide lap.

Surfacing: Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.

Maximum Design Pressure: -150 psf. (See General Limitation #7.)



Membrane Type: SBS
Deck Type 4: Lightweight Concrete, Non-Insulated
Deck Description: Concrecel Lightweight Insulating Concrete with ARBS Perimeter Blocking System
System Type E(14): Base sheet mechanically fastened.

All General and System Limitations apply.

Deck: Minimum 22 ga. vented B deck attached to supports spaced 5' o.c. maximum using washers and 5/8" puddle welds (at each 1.5" wide rib). Steel deck side laps are attached with Tek 1 screws #12-.75" maximum spacing 6" o.c.
16 ga. ARBS Perimeter Blocking System secured with .75" dia. Metal washers and #12-1.5" Tek 2 screws maximum spacing 12" o.c., additionally, ARBS lengths are joined with 6" concealed splice plates fastened with #8-5/8" Tek 2 screws (2 at each side).

Primer: (Optional) Elastocol 500, Elastocol Stick or AquaTac applied at a rate of 1 gal/sq., to top surface of any base or ply sheet prior to application of next layer

Base Sheet: One layer of Soprafix, Soprafix Base 622, Soprafix [S]*, Soprafix Base 612*, Soprafix [F]*, Soprafix Base 613*, Soprafix [X]* or Soprafix Base 614 fastened to the deck with #14 screws thru Batten Bar spaced 12" o.c. maximum at the lap of sheet.

*Requires heat welded ply or cap membrane.

Ply Sheet: Sopralene Flam 180*, Sopralene 180 SP 3.5, Soprafix, Soprafix Base 622, Sopralene Flam 250*, Sopralene 250 SP, heat welded.

*Requires heat welded cap membrane.

Membrane: One layer of Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Elastophene Flam HS FR GR, Soprastar Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, heat welded.

Surfacing: Surfacing is Optional on granular surfaced field cap membranes.
Surfacing is Required for smooth or sanded surfaced field cap membranes.
Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications.
Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.

Maximum Design Pressure: -172.5 psf. (See General Limitation #7.)



Membrane Type: SBS

Deck Type 4: Lightweight Concrete, Non-Insulated

Deck Description: Concrecel Lightweight Insulating Concrete, Min. 200 psi
Celcore Cellular Lightweight Insulating Concrete, Min. 200 psi

System Type F(1): Base sheet adhered to substrate

All General and System Limitations apply.

Primer: (Optional) Elastocol 500, Elastocol Stick or AquaTac applied at a rate of 1 gal/sq., to top surface of base or ply sheet prior to application of next layer

Base Layer: Colvent TG, Colvent 180 TG, heat welded.

Ply Sheet: None

Membrane: One layer of Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Elastophene Flam HS FR GR, Sopralene Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, heat welded.

Or

One layer of Elastophene GR, Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Elastophene HS FR GR, Sopralene Sanded, Sopralene 180 FR GR, Sopralene 250 FR GR, adhered in hot asphalt at 25 lbs./sq. to sand surfaced base membrane.

Surfacing: Surfacing is Optional on granular surfaced field cap membranes.
Surfacing is Required for smooth or sanded surfaced field cap membranes.
Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications.
Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.

Maximum Design Pressure: -60 psf. (See General Limitation #9.)

Membrane Type: SBS
Deck Type 4: Lightweight Concrete, Non-Insulated
Deck Description: Celcore Cellular Lightweight Insulating Concrete, Min. 300 psi over structural concrete deck.

System Type F(2): Base sheet adhered to substrate

All General and System Limitations apply.

Deck: Celcore MF Cellular Lightweight concrete shall have a minimum 2” thick top coat. Minimum 1” EPS is optional.

Primer: ASTM D 41, Elastocol 500, Elastocol Stick or AquaTac applied at a rate of 1 gal/sq., to top surface of any base or ply sheet prior to application of next layer
(Optional)

Vapor Retarder: One layer of Elastophene SP, Elastophene SP 3.0, Sopralene 180 SP 3.5, Soprafix, Soprafix Base 622, Sopralene 250 SP, heat welded
(Optional)
Or
Elastophene Sanded, Elastophene Sanded 3.0, Elastophene HS Sanded, Elastophene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded, Sopralene 250 Sanded, adhered in hot asphalt at 25 lbs./sq.

Base Layer: One layer Colvent TG, Colvent 180 TG, heat welded to primed lightweight concrete.

*Requires heat welded ply or cap membrane.

Ply Sheet: One or more layers of Sopralene Flam 180*, Sopralene 180 SP 3.5, Soprafix, Soprafix Base 622, Sopralene Flam 250*, Sopralene 250 SP, heat welded
(Optional)
Or
Sopralene 180 Sanded, Sopralene 180 PS*, Sopralene 250 Sanded, adhered in hot asphalt at 25 lbs./sq. to sand surfaced base membrane.

*Requires heat welded cap membrane.

Membrane: One layer of SopraStar Flam, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, heat welded.

Surfacing: Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.

Maximum Design Pressure: -262.5 psf. (See General Limitation #9.)



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 equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117; calculations shall be signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.
3. For systems where specific lightweight insulating concrete is not referenced, the minimum design mix shall be a minimum of 300 psi.

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 side lap 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 to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners).
(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9N-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE



NOA No.: 11-0203.01
Expiration Date: 12/31/14
Approval Date: 06/20/13
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