



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

**NOTICE OF ACCEPTANCE (NOA)**

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION  
11805 SW 26 Street, Room 208  
Miami, Florida 33175-2474  
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[www.miamidade.gov/economy](http://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 Recover 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. 10-0408.06 and consists of pages 1 through 68.  
The submitted documentation was reviewed by Jorge L. Acebo.



NOA No.: 11-0119.06  
Expiration Date: 12/31/14  
Approval Date: 08/08/13  
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## ROOFING SYSTEM APPROVAL

<u>Category:</u>	Roofing
<u>Sub-Category:</u>	Modified Bitumen
<u>Material:</u>	SBS
<u>Deck Type:</u>	Recover
<u>Maximum Design Pressure:</u>	See Specific Deck Type

### 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. <b>For use as a base/ply sheet only.</b>
Modified Sopra G	39" x 108' (3.5 sq.)	ASTM D4601	Fiberglass reinforced modified asphalt base sheet for bonding or mechanically attaching to substrate. <b>For use as a base/ply sheet only.</b>
Soprabase	39" x 99' (3 sq.)	ASTM D4601	Oxidized asphalt, polyester reinforced, sand-surfaced base sheet. <b>For use as a base/ply sheet only.</b>
Soprabase S	39" x 65' (2 sq.)	ASTM D4601	SBS modified bitumen, polyester reinforced, sand-surfaced base sheet. <b>For use as a base/ply sheet only.</b>
Soprabase TG	39" x 65' (2 sq.)	ASTM D4601	SBS modified bitumen, polyester reinforced, film-surfaced base sheet. <b>For use as a base/ply sheet only.</b>
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 ply sheet 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.
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' (1.5 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 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 b 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.
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).
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.
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 180GR	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 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).
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 of ribbon stripping (after removal of plastic burn-off film).
Soprastar 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.
Soprastar 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.
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.
High Velocity® Insulation Adhesive II (HVIA-II)	3 gal. pail	Proprietary	One part elastomeric urethane foam adhesive.
High Velocity® Insulation Adhesive III (HVIA-III)	4 dual cartridges per carton	Proprietary	Two part elastomeric urethane foam adhesive.



High Velocity® Insulation Adhesive III – Green	4 dual cartridges per carton	Proprietary	Two part elastomeric urethane foam adhesive.
High Velocity Insulation Adhesive PG	5 gal. or 50 gal.	Proprietary	Two part elastomeric urethane foam adhesive.
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.
Soprema PV Adhesive	5 gallon pail	Proprietary	A solvent free, two-component adhesive used in the application of PV laminates.
Soprastar Adhesive	5 gallon pail or 55 gallon drum	Proprietary	SBS modified bitumen based cold adhesive.

**APPROVED INSULATIONS:**

**TABLE 2**

<b>Product Name</b>	<b>Product Description</b>	<b>Manufacturer (With Current NOA)</b>
ACFoam-II, ACFoam-III	Polyisocyanurate foam insulation	Atlas Roofing Corporation
ISO 95+ GL	Polyisocyanurate foam insulation	Firestone Building Products Company, LLC
EnergyGuard Isocyanurate Composite	Composite polyisocyanurate insulation board	GAF
High Density Wood Fiberboard	Wood fiber insulation board	Generic
Perlite Insulation	Perlite insulation board	Generic
DensDeck, DensDeck Prime, DensDeck DuraGuard Fireguard Type X Gypsum Board, DensDeck DuraGuard	Water resistant gypsum board	Georgia Pacific Gypsum LLC
H-Shield	Polyisocyanurate foam insulation	Hunter Panels LLC
ENRGY 3, ENRGY 3 25 PSI	Polyisocyanurate foam insulation	Johns Manville Corp.
Multi-Max FA-3, Multi-Max-3	Polyisocyanurate foam insulation	RMax Operating, LLC
SECUROCK Gypsum-Fiber Roof Board	Gypsum board	USG Corp.
Structodek High Density Fiberboard Roof Insulation	High Density wood fiber insulation board	Blue Ridge Fiberboard



**APPROVED INSULATIONS:**

<b>Product Name</b>	<b>Product Description</b>	<b>Manufacturer (With Current NOA)</b>
Fesco Board	Expanded perlite and fiber insulation	Johns Manville Corp.
Sopraboard	Mineral fortified asphaltic cored coverboard	Soprema, Inc.
M-Shield	Polyisocyanurate foam insulation	Soprema, Inc.
Sopra-ISO s, Sopra-ISO+ s	Polyisocyanurate foam insulation	Soprema, Inc.
Sopra-ISO r	Polyisocyanurate foam insulation	Soprema, Inc.

**APPROVED FASTENERS:**

<b>Fastener Number</b>	<b>Product Name</b>	<b>Product Description</b>	<b>Dimensions</b>	<b>Manufacturer (With Current NOA)</b>
1.	Tri-Fix Fastening System	Fastening system for base sheet attachment to LWC, gypsum or CWF 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.	various	Soprema, Inc.
3.	Dekfast #12, #14 & #15 HS Fastener	Insulation fastener	various	SFS Intec, Inc.
4.	Dekfast Galvalume Steel Hex Plate	Galvalume AZ50 steel plate	2 7/8” x 3 1/4”	SFS Intec, Inc.
5.	Dekfast Dekflat Round Plastic Lock Plate	Polypropylene locking plate.	3” x 3 1/4”	SFS Intec, Inc.
6.	Twin Loc-Nails	Base ply fastening systems for LWC, gypsum or CWF decks.		ES Products, Inc.
7.	OMG 3” Galvalume Steel Plate	Galvalume stress plate.	3” diameter	OMG, Inc.
8.	Flat Bottom Metal Plate	Galvalume stress plate.	3” square	OMG, Inc.
9.	OMG CR Base Ply Fasteners	Base ply fastening assembly	various	OMG, Inc.
10.	Polymer GypTec	Glass reinforced Nylon insulation fastener for gypsum & CWF decks with barbs.	various	OMG, Inc.
11.	Polymer GypTec Insulation Plate	Galvalume stress plate	3" diameter	OMG, Inc.
12.	Lite Deck	Insulation fastener for CWF and Gypsum decks.		OMG, Inc.
13.	Lite Deck Plate	Galvalume stress plate	3" diameter	OMG, Inc.



**APPROVED FASTENERS:****TABLE 3**

<b>Fastener Number</b>	<b>Product Name</b>	<b>Product Description</b>	<b>Dimensions</b>	<b>Manufacturer (With Current NOA)</b>
14.	OMG Fastener #12, #14 & #15	Insulation fastener.	various	OMG, Inc.
15.	OMG CD-10	Insulation fastener.	various	OMG, Inc.
16.	OMG Fluted Nail	Insulation fastener.	various	OMG, Inc.
17.	OMG 3 in. Round Metal Plates	Galvalume AZ50 steel plate	3" diameter	OMG, Inc.
18.	OMG Plastic Plate	Polypropylene stress plate	3.25" diameter	OMG, Inc.
19.	Trufast TL Fastener	Insulation fastener for lightweight concrete, CWF and gypsum decks	various	Altenloh, Brinck & Co. U.S., Inc.
20.	Trufast #14 HD Fastener	Insulation fastener for wood, steel and concrete.	various	Altenloh, Brinck & Co. U.S., Inc.
21.	Trufast #15 EHD Fastener	Insulation fastener for wood, steel and concrete.	various	Altenloh, Brinck & Co. U.S., Inc.
22.	Trufast 3" Metal Insulation Plate	Galvalume AZ50 steel plate	3" diameter	Altenloh, Brinck & Co. U.S., Inc.
23.	ES Products Batten Bar-TL	Batten bar		ES Products, Inc.
24.	OMG Polymer Batten Strip-TL	Modified polymer batten bar		OMG, Inc.
25.	OMG Heavy Duty	Insulation fastener	various	OMG, Inc.
26.	Galvalume Steel 3" Round Insulation Plate	Galvalume AZ50 steel plate	3" diameter	SFS Intec, Inc.
27.	Dekfast Coiled Batten Strip	Batten bar		SFS Intec, Inc.
28.	Soprema 3" Round Insulation Plate	Stress plate	3" diameter	Soprema, Inc.
29.	Soprafix 2" SB Stress Plate	Stress plate	2" diameter	Soprema, Inc.
30.	Soprafix MBB-R	Metal Batten Bar		Soprema, Inc.
31.	Soprema #12 DP, #14 MP, #15 HD Fastener	Insulation and membrane fasteners		Soprema, Inc.
32.	Trufast Flat Batten Bar	Galvalume AZ55 steel batten bar		Altenloh, Brinck & Co. U.S., Inc.
33.	Trufast Recessed Batten Bar	Galvalume AZ55 steel batten bar with recessed holes		Altenloh, Brinck & Co. U.S., Inc.
34.	Tru-Fast Twin-Loc Batten Bar	Batten bar		Altenloh, Brinck & Co. U.S., Inc.
35.	Trufast TL Insulation Plate	Galvalume AZ50 steel stress plate	3" diameter	Altenloh, Brinck & Co. U.S., Inc.
36.	Tru-Fast 2" Barbed Metal Seam Plates	Galvalume steel barbed plate	2" diameter	Altenloh, Brinck & Co. U.S., Inc.
37.	Tru-Fast 2.4" Barbed Seam Plates	Galvalume steel barbed plate	2.4" diameter	Altenloh, Brinck & Co. U.S., Inc.



**APPROVED FASTENERS:****TABLE 3**

<b>Fastener Number</b>	<b>Product Name</b>	<b>Product Description</b>	<b>Dimensions</b>	<b>Manufacturer (With Current NOA)</b>
38.	TPR Peel Rivet	Rivet for insulation or membrane attachment for steel, CWF or gypsum decks.	various	SFS Intec, Inc.
39.	Dekfast IF-2-SB	Galvalume AZ55 steel plate	2" diameter	SFS Intec, Inc.
40.	Dekfast Galvalume Steel Round 2-3/8" 20 ga. Barbed plates	Galvalume AZ55 steel barbed plate	2.37" diameter	SFS Intec, Inc.
41.	Soprema 2" Seam Plate	Stress plate	2" diameter	Soprema, Inc.
42.	Soprema 3" Metal Insulation Plate	Stress plate	3" diameter	Soprema, Inc.
43.	Trufast 3" Recessed Metal Insulation Plate	Galvalume AZ50 steel plate	3" diameter	Altenloh, Brinck & Co. U.S., 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.**

<b>System Number</b>	<b>Manufacturer</b>	<b>Application</b>
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 Soprarstar 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>Report</u>	<u>Name</u>	<u>Date</u>	
Factory Mutual Research Corp.	3002351	FM 4470	02/28/03	
	3017614	FM 4470	02/27/06	
	3023749	FM 4470	09/28/06	
	3029098	FM 4470	10/25/07	
	3032109	FM 4470	07/21/08	
	3008441	FM 4470	10/17/00	
	3026128	FM 4470	08/04/06	
	3024311	FM 4470	11/01/06	
	3036182	FM 4470	07.31.09	
	3014751	FM 4470	08/27/03	
	3023458	FM 4470	07/18/06	
	3008869	FM 4470	03/19/01	
	3045101	FM 4470	11/05/12	
	Underwriters Laboratories	R11436	UL 790	06/18/13
		2491-04.95	TAS 114	01/04/95
	Dynatech Engineering Corp.	2003.02.97-1	TAS 114	02/15/97
		2003-2.04.97-1	TAS 114	04/15/97
	Exterior Research & Design, LLC	2002.07.97-1	TAS 114	08/15/97
		2738.10.00-1	TAS 114	10/20/02
		2109.08.02	TAS 114	08/06/02
2109.09.02		TAS 114	09/19/02	
2764.09.03		TAS 114	09/16/03	
2766.12.03		TAS 114	12/01/03	
2779.11.05-R1		TAS 114	04/18/07	
2774.04.05-R1		TAS 114	04/18/07	
S6740.11.07		ASTM D 6163	11/02/07	
S12370.03.09-1		ASTM D 6164	03/06/09	
S12370.03.09-2		ASTM D 6164	03/06/09	
S12370.03.09-3		ASTM D 6162	03/06/09	
2752.02LAB.05.02-1		TAS 114	05/24/02	
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	
	02-017	TAS 114	04/16/02	
	02-022	TAS 114	07/07/02	
	02-031	TAS 114	09/06/02	
	PRI Construction Materials	SOP-049-02-01	ASTM D1644/ASTM D2196	05/31/12
Technologies, LLC	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	



**APPROVED ASSEMBLIES:**

- Membrane Type:** SBS
- Deck Type 7I:** Recover, Insulated
- Deck Description:** Wood/Steel/Concrete/Lightweight Concrete/Cementitious Wood Fiber/Gypsum
- System Type A(1):** Anchor sheet mechanically fastened; all layers of insulation adhered with approved asphalt.

**All General and System Limitations apply.**

One or more layers of any of the following insulations.

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, ENRGY 3, ENRGY 3 25 PSI, Multi-Max FA-3, H-Shield, M-Shield, Sopra-ISO r (flat or tapered) Minimum 1.5” thick</b>	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Approved High Density Fiberboard, Structodek High Density Fiberboard Minimum ½” thick</b>	N/A	N/A
<b>Fesco Board Minimum ¾” thick</b>	N/A	N/A
<b>DensDeck Minimum ¼” thick</b>	N/A	N/A
<b>DensDeck DuraGuard Fireguard Type X Gypsum Board Minimum 5/8” thick</b>	N/A	N/A

**Note:** All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft<sup>2</sup>. 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.

- Anchor Sheet:** One ply of Sopra G, Modified Sopra G, Soprabase, Soprabase S, Soprabase TG\* fastened to the deck as described below:
- Fastening #1:** *(wood, steel, concrete)* Attach anchor sheet using SFS Dekfast #14 Fastener with Dekfast Galvalume Steel Hex Plates spaced 9” o.c. in a 4” lap and 12” o.c. in two staggered rows in the center of the sheet.
- Fastening #2:** *(gypsum)* Attach anchor sheet using 1.8” long Twin Loc-Nails spaced 9” o.c. in a 2” lap and 18” o.c. in two staggered rows in the center of the sheet.

**Note:** Anchor sheet fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements set forth in applicable Building Code.



**Base Sheet:  
(Optional)** One or more plies of Sopra G, Modified Sopra G, Sopra-IV, Sopra-VI, Soprabase, 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)** **(Required if no base sheet used)** One or more plies of Elastophene Flam\*, Elastophene Flam 2.2\*, Sopralene Flam 180\*, Sopralene Flam 250\*, Sopralene 180 SP, Sopralene 250 SP, heat welded

Or

One or more plies 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 ASTM D 2178 Type IV or 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.

\*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, Sopralast 50 TV Alu, heat welded

Or

Elastophene FR GR, 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:** -45 psf. (See General Limitation #9)

**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Lightweight Concrete/Cementitious Wood Fiber/Gypsum  
**System Type A(2):** Anchor sheet mechanically fastened, all layers of insulation adhered with approved asphalt or adhesive

**All General and System Limitations apply.**

**Anchor Sheet:** One layer Soprabase, Soprabase S, Elastophene 180 Sanded, Sopralene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 250 SP, mechanically attached with 1.8” long Twin Loc-Nails spaced 6” o.c. in min. 4” lap and 6” o.c. in two evenly spaced, staggered rows in the field.

One or more layers of any of the following insulations.

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam-II, Sopra-ISO s, ENRGY 3, Multi-Max FA-3, H-Shield, M-Shield, Sopra-ISO r Minimum 1.5” thick</b>	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>DensDeck Minimum ¼” thick</b>	N/A	N/A
<b>Sopraboard Minimum 1/8” thick</b>	N/A	N/A

**Note: All insulation shall be adhered to the vapor barrier in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft<sup>2</sup>, or in Soprema High Velocity® Insulation Adhesive (HVIA-II), High Velocity® Insulation Adhesive III – Green or High Velocity Insulation Adhesive PG in ¾” wide ribbons spaced 6” o.c. 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 a final membrane substrate.**

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

**Base Sheet:** One layer Colvent TG or Colvent 180 TG, heat welded.

**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, Sopralene Flam 250\*, Sopralene 250 SP, heat welded.  
**(Optional)**  
 Or  
 Elastophene Sanded, Elastophene Sanded 3.0, 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 hot asphalt at 25 lbs./sq. or applied in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at a rate of 1.5 gal./sq. 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

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 hot asphalt at 25 lbs./sq. or applied in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at a rate of 1.5 gal./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 7I:** Recover, Insulated  
**Deck Description:** Wood/Steel/Concrete/Lightweight Concrete/Cementitious Wood Fiber/Gypsum  
**System Type A(3):** All layers of insulation adhered with approved asphalt.

**All General and System Limitations apply.**

One or more layers of any of the following insulations.

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ENRGY 3, ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, H-Shield, M-Shield, Sopra-ISO r (flat or tapered) Minimum 1.5" thick</b>	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>DensDeck Minimum ¼" thick</b>	N/A	N/A

**Note:** Existing roof surface shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of vapor barrier or insulation. All insulation shall be adhered to the vapor barrier or primed deck in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft<sup>2</sup> or High Velocity<sup>®</sup> Insulation Adhesive II (HVIA-II), High Velocity<sup>®</sup> Insulation Adhesive III (HVIA-III), High Velocity<sup>®</sup> Insulation Adhesive III –Green or High Velocity<sup>®</sup> Insulation Adhesive PG applied in continuous ¾" to 1" wide ribbons at a maximum spacing of 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

**Base Sheet: (Optional)** One or more plies of Sopra G, Modified Sopra G, Sopra-IV, Sopra-VI, Soprabase, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Ply Sheet:** One or more plies of Elastophene Flam\*, Elastophene Flam 2.2\*, Sopralene Flam 180\*, Sopralene Flam 250\*, Sopralene 180 SP, Sopralene 250 SP, heat welded  
 Or  
 One or more plies 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 Type IV or Type 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.

\*Requires heat weld 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, Sopralast 50 TV Alu, heat welded

Or

Elastophene FR GR, 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 #9.)



**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Wood/Steel/Concrete/Lightweight Concrete/Cementitious Wood Fiber/Gypsum  
**System Type A(4):** One or more layers of insulation adhered with approved asphalt.

**All General and System Limitations apply.**

One or more layers of any of the following insulations.

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, ENRGY 3, ENRGY 3 25 PSI, H-Shield, M-Shield, Sopra-ISO r (flat or tapered) Minimum 1.5" thick</b>	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Approved High Density Fiberboard, Structodek High Density Fiberboard Minimum 1/2" thick</b>	N/A	N/A
<b>Fesco Board Minimum 3/4" thick</b>	N/A	N/A
<b>DensDeck Minimum 1/4" thick</b>	N/A	N/A
<b>DensDeck DuraGuard Fireguard Type X Gypsum Board Minimum 5/8" thick</b>	N/A	N/A

**Note:** Existing roof surface shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of vapor barrier or insulation. All insulation shall be adhered to the deck in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft<sup>2</sup> or in Henry III Insulbond at 2.0-2.5 gallons/sq. Please refer to Roofing Application Standard PA 117 for insulation attachment. Insulations listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

**Base Sheet:** One or more plies of Sopra G, Modified Sopra G, Sopra-IV, Sopra-VI, Soprabase, (Optional) adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Ply Sheet:** (Required if no base sheet used) One or more plies of Elastophene Flam\*, (Optional) Elastophene Flam 2.2\*, Sopralene Flam 180\*, Sopralene Flam 250\*, Sopralene 180 SP, Sopralene 250 SP, heat welded  
 Or  
 One or more plies 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 ASTM D 2178 Type IV or 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.  
 \*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, Sopralast 50 TV Alu, heat welded
- Or
- Elastophene FR GR, 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.; (for all other applications) (See General Limitation #9.)  
 -420 psf.; (for min. 1.5" thick Approved polyisocyanurate in asphalt followed by min. 3/4" FescoBoard in asphalt.) (See General Limitation #9.)

**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Wood/Steel/Concrete/Lightweight Concrete/Cementitious Wood Fiber/Gypsum  
**System Type A(5):** One or more layers of insulation adhered with approved adhesive or asphalt.

**All General and System Limitations apply.**

One or more layers of any of the following insulations.

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, H-Shield, M-Shield, Sopra-ISO r (flat or tapered) Minimum 1.5” thick</b>	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>DensDeck Minimum ¼” thick</b>	N/A	N/A

**Note:** Existing roof surface shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of vapor barrier or insulation. All insulation shall be adhered to the vapor barrier or primed deck in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft<sup>2</sup> or Insta-Stik Adhesive applied in continuous ¾” to 1” wide ribbons at a maximum spacing of 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

**Base Sheet:** One or more plies of Sopra G, Modified Sopra G, Sopra-IV, Sopra-VI, Soprabase, (Optional) adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Ply Sheet:** One or more plies of Elastophene Flam\*, Elastophene Flam 2.2\*, Sopralene Flam 180\*, Sopralene Flam 250\*, Sopralene 180 SP, Sopralene 250 SP, heat welded  
 Or

One or more plies 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 Type IV or Type 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.

\*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, Sopralast 50 TV Alu, heat welded

Or

Elastophene FR GR, 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:** -90 psf.; (See General Limitation #9.)

**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Wood/Steel/Concrete/Lightweight Concrete/Cementitious Wood Fiber/Gypsum  
**System Type A(6):** One or more layers of insulation adhered with approved asphalt.

**All General and System Limitations apply.**

One or more layers of any of the following insulations.

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, ENRGY 3, H-Shield, M-Shield, Sopra-ISO r (flat or tapered) Minimum 1.5” thick	N/A	N/A

**Note:** Existing roof surface shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of vapor barrier or insulation. Base insulation layer shall be adhered to the vapor barrier or primed deck in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft<sup>2</sup> or OlyBond Insulation Adhesive applied at a rate of 1 gal./100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
DensDeck Minimum ¼” thick	N/A	N/A
Approved High Density Fiberboard, Structodek High Density Fiberboard Minimum ½” thick	N/A	N/A

**Note:** Apply top layer of insulation in a full mopping of any approved mopping hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft<sup>2</sup> or OlyBond Insulation Adhesive applied at a rate of 1 gal./100 ft<sup>2</sup>. 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:** One or more plies of Sopra G, Modified Sopra G, Sopra-IV, Sopra-VI, Soprabase, (Optional) adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Ply Sheet:** (Required if no base sheet used) One or more plies of Elastophene Flam\*, (Optional) Elastophene Flam 2.2\*, Sopralene Flam 180\*, Sopralene Flam 250\*, Sopralene 180 SP, Sopralene 250 SP, heat welded

Or

One or more plies 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 ASTM D 2178 Type IV or 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.

\*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, Sopralast 50 TV Alu, heat welded

Or

Elastophene FR GR, 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:** -105 psf.; (for High Density Wood Fiberboard) (See General Limitation #9.)  
-127.5 psf.; (See General Limitation #9.)

**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Wood/Steel/Concrete/Lightweight Concrete/Cementitious Wood Fiber/Gypsum  
**System Type A(7):** One or more layers of insulation adhered with approved adhesive or asphalt.

**All General and System Limitations apply.**

One or more layers of any of the following insulations.

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, ENRGY 3, H-Shield, M-Shield, Sopra-ISO r (flat or tapered) Minimum 1.5" thick</b>	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>DensDeck Minimum ¼" thick</b>	N/A	N/A
<b>Approved High Density Wood Fiberboard Minimum ½" thick</b>	N/A	N/A

**Note:** Existing roof surface shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of vapor barrier or insulation. All insulation shall be adhered to the vapor barrier or primed deck in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft<sup>2</sup> or High Velocity<sup>®</sup> Insulation Adhesive II (HVIA-II), High Velocity<sup>®</sup> Insulation Adhesive III (HVIA-III), High Velocity<sup>®</sup> Insulation Adhesive III –Green or High Velocity<sup>®</sup> Insulation Adhesive PG applied in continuous ¾" to 1" wide ribbons at a maximum spacing of 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

**Base Sheet: (Optional)** One or more plies of Sopra G, Modified Sopra G, Sopra-IV, Sopra-VI, Soprabase, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Ply Sheet:** One or more plies of Elastophene Flam\*, Elastophene Flam 2.2\*, Sopralene Flam 180\*, Sopralene Flam 250\*, Sopralene 180 SP, Sopralene 250 SP, heat welded  
 Or

One or more plies 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 Type IV or Type 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.

\*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, Sopralast 50 TV Alu, heat welded

Or

Elastophene FR GR, 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:** -105 psf.; (for High Density Wood Fiberboard) (See General Limitation #9.)  
-127.5 psf.; (for Dens Deck) (See General Limitation #9.)

**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Steel/Concrete.  
**System Type B:** 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.

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, ENRGY 3, ENRGY 3 25 PSI, H-Shield, M-Shield, Sopra-ISO r (flat or tapered) Minimum 1.5" thick</b>	<b>2, 3, 12, 14, 15, 19 with approved plates</b>	<b>1:1.33 ft<sup>2</sup></b>

**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. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements set forth in applicable Building Code. (See Roofing Application Standard RAS 117 for fastening details).**

<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Approved High Density Fiberboard, Structodek High Density Fiberboard Minimum ½" thick</b>	<b>N/A</b>	<b>N/A</b>
<b>Fesco Board Minimum ¾" thick</b>	<b>N/A</b>	<b>N/A</b>

**Note: Apply optional top layer of insulation shall be adhered with approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as the base layer shall only be used as the base layer with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.**

**Base Sheet: (Optional)** One or more plies of Sopra G, Modified Sopra G, Sopra-IV, Sopra-VI, Soprabase, 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)** **(Required if no base sheet used)** One or more plies 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 ASTM D 2178 Type IV or 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.

\*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, Sopralast 50 TV Alu, heat welded

Or

Elastophene FR GR, 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:** -67.5 psf. (For perlite) (See General Limitation #7)  
-75 psf. (For High Density Wood Fiberboard) (See General Limitation #7)

**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Cementitious Wood Fiber/Gypsum  
**System Type C(1):** All layers of insulation simultaneously attached.

**All General and System Limitations apply.**

One or more layers of any of the following insulations.

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, ENRGY 3, ENRGY 3 25 PSI, Multi-Max FA-3, H-Shield, M-Shield, Sopra-ISO r (flat or tapered) Minimum 1.5" thick</b>	N/A	N/A

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

<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Approved High Density Wood Fiberboard Minimum ½" thick</b>	9	1:1.3 ft <sup>2</sup>
<b>DensDeck Minimum ¼" thick</b>	9	1:2 ft <sup>2</sup>

**Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

**Base Sheet: (Optional)** One or more plies of Sopra G, Modified Sopra G, Sopra-IV, Sopra-VI, Soprabase, adhered in CIM 162 Adhesive or Soprema PV Adhesive applied at a rate of 1.5 gal./sq.

**Ply Sheet: (Optional)** **(Required if no base sheet used)** One or more plies of Elastophene Flam\*, Elastophene Flam 2.2\*, Sopralene Flam 180\*, Sopralene Flam 250\*, Sopralene 180 SP, Sopralene 250 SP, heat welded  
 Or  
 One or more plies 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 Type IV or Type 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.  
 \*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, Sopralast 50 TV Alu, heat welded

Or

Elastophene FR GR, 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:** -45 psf. (See General Limitation #7)



**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Wood/Steel/Concrete  
**System Type C(2):** All layers of insulation simultaneously attached.

**All General and System Limitations apply.**

One or more layers of any of the following insulations.

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, ENRGY 3, ENRGY 3 25 PSI, Multi-Max FA-3, H-Shield, M-Shield, Sopra-ISO r (flat or tapered) Minimum 1.5” thick</b>	N/A	N/A

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

<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Approved High Density Wood Fiberboard Minimum ½” thick</b>	<b>2, 3, 12, 14, 15, 19 with approved plates</b>	<b>1:2 ft<sup>2</sup></b>

**Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

**Base Sheet: (Optional)** One or more plies of Sopra G, Modified Sopra G, Sopra-IV, Sopra-VI, Soprabase, adhered in CIM 162 Adhesive or Soprema PV Adhesive applied at a rate of 1.5 gal./sq.

**Ply Sheet: (Optional)** **(Required if no base sheet used)** One or more plies of Elastophene Sanded, Elastophene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded, Sopralene 250 Sanded or ASTM D 2178 Type IV or VI ply sheet adhered in CIM 162 Adhesive or Soprema PV Adhesive applied at a rate of 1.5 gal./sq.

**Membrane:** Elastophene FR GR, Elastophene FR+ GR, Elastophene LS FR GR, Elastophene GR, Soprastar Sanded, Sopralene 180 FR GR, Sopralene 250 FR GR adhered in CIM 162 Adhesive or Soprema PV Adhesive applied at a rate of 1.5 gal./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:** -52.5 psf. (See General Limitation #7)



**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Steel  
**System Type C(3):** All layers of insulation simultaneously attached.

**All General and System Limitations apply.**

**Deck:** 18-22 ga., steel deck with maximum deck spans of 6 ft. o.c. Deck side laps are attached with Traxx/5 screws spaced 6" o.c.

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

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Any approved polyisocyanurate or polystyrene listed in Table 2</b>		
<b>Minimum 1" thick</b>	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Sopraboard</b>		
<b>Minimum 1/8" thick</b>	<b>2, 3, 12, 20 with approved plates</b>	<b>1:2</b>

**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. 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 insulation, base or ply sheet prior to application of next layer  
**(Optional)**

**Base Sheet:** One or more plies of Sopra G, Modified Sopra G, Elastophene Sanded, Elastophene Sanded 3.0, Elastophene HS Sanded, Elastophene PS\*, Elastophene PS 3.0\*, Elastophene 180 Sanded, Elastophene 180 PS\*, Sopralene 180 PS 2.2\*, Sopralene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 PS 3.5\*, Sopralene 250 Sanded, adhered in hot asphalt at 25 lbs./sq.  
 Or  
 Elastophene Flam\*, Elastophene Flam 2.2\*, Elastophene Flam HS\*, Elastophene SP, Elastophene SP 3.0, Sopralene Flam 180\*, Sopralene 180 SP 3.5, Sopralene Flam 250\*, Sopralene 250 SP, heat welded.  
 \*Requires heat welded ply or cap membrane.



- Ply Sheet:  
(Optional)** One or more plies of Sopra-IV, Sopra-VI or any approved ASTM D2178 Type IV or VI ply sheet, Elastophene Sanded, Elastophene Sanded 3.0, Elastophene HS Sanded, Elastophene PS\*, Elastophene PS 3.0\*, Elastophene 180 Sanded, Elastophene 180 PS\*, Sopralene 180 PS 2.2\*, Sopralene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 PS 3.5\*, Sopralene 250 Sanded, adhered in hot asphalt at 25 lbs./sq. to sand surfaced base membrane.  
Or  
Elastophene Flam\*, Elastophene Flam 2.2\*, Elastophene Flam HS\*, Elastophene SP, Elastophene SP 3.0, Sopralene Flam 180\*, Sopralene 180 SP 3.5, Sopralene Flam 250\*, Sopralene 250 SP, heat welded.  
\*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 hot asphalt at 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:** -60 psf. (See General Limitation #7.)

**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Steel  
**System Type C(4):** All layers of insulation simultaneously attached.

**All General and System Limitations apply.**

**Deck:** 18-22 ga., steel deck with maximum deck spans of 6 ft. o.c. Deck side laps are attached with Traxx/5 screws spaced 6" o.c.

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

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Any approved polyisocyanurate or polystyrene listed in Table 2</b>		
<b>Minimum 1" thick</b>	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Sopraboard</b>		
<b>Minimum 1/8" thick</b>	<b>2, 3, 12, 20 with approved plates</b>	<b>1:2</b>

**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. 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 insulation, base or ply sheet prior to application of next layer  
**(Optional)**

**Base Sheet:** One or more plies of Sopralene 180 Sanded, Elastophene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 PS 3.5\*, Sopralene 250 Sanded, adhered in hot asphalt at 25 lbs./sq.  
 Or  
 Sopralene Flam 180\*, Sopralene 180 SP 3.5, Sopralene Flam 250\*, Sopralene 250 SP, heat welded.  
 \*Requires heat welded ply or cap membrane.

**Ply Sheet:** Sopralene 180 Sanded, Elastophene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 PS 3.5\*, Sopralene 250 Sanded, adhered in hot asphalt at 25 lbs./sq. to sand surfaced base membrane.  
 Or  
 Sopralene Flam 180\*, Sopralene 180 SP 3.5, Sopralene Flam 250\*, Sopralene 250 SP, heat welded.  
 \*Requires heat welded cap membrane.



**Membrane:** 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.

Or

SopraStar Sanded, Sopralene 180 FR GR, Sopralene 250 FR GR, adhered in hot asphalt at 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:**

-67.5 psf. (See General Limitation #7.)



**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Celcore Cellular Lightweight Insulating Concrete, Min. 200 psi  
**System Type C(5):** 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.

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Sopraboard Minimum 1/8" thick</b>	<b>2 (#15)</b>	<b>1:1.33 ft<sup>2</sup></b>

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

**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 Elastophene Flam\*, Elastophene Flam 2.2\*, Elastophene Flam HS\*, Elastophene SP, Elastophene SP 3.0, Sopralene Flam 180\*, Sopralene 180 SP 3.5, Sopralene Flam 250\*, Sopralene 250 SP, Colvent TG or Colvent 180 TG, heat welded.

Or

One layer of Elastophene Sanded, Elastophene Sanded 3.0, 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, applied in hot asphalt at 25 lbs./sq.

\*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, Sopralene Flam 250\*, Sopralene 250 SP, heat welded.

Or

Elastophene Sanded, Elastophene Sanded 3.0, 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 hot asphalt at 25 lbs./sq. 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

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 hot asphalt at 25 lbs./sq. to sand surfaced base or ply membranes.

**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 7I:** Recover, Insulated  
**Deck Description:** Lightweight Concrete/Cementitious Wood Fiber/Gypsum  
**System Type D(1):** Membrane fastened over preliminarily secured insulation

**All General and System Limitations apply.**

One or more layers of any of the following insulations.

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Any approved insulations and/or coverboards listed in Table 2.</b>	<b>6</b>	<b>1:6.4</b>

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

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

**Base Layer:** One layer Soprafix, Soprafix Base 622, Soprafix [X], Soprafix Base 614, Soprafix-e or Soprafix Base 641, mechanically attached with Twin-Loc Nails spaced 6" o.c. through OMG Polymer Batten Strip-TL, ES Products Batten Bar-TL, Trufast Twin Loc Batten Bar or Dekfast Coiled Batten Strip or Soprafix MBB-R, placed in the lap and in one row centered in the field. Center fastener row is covered with an 8" wide strip of Sopralene Flam Stick\*, Sopralene Stick, self-adhered. \*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, Sopralene Flam 250\*, Sopralene 250 SP, heat welded.

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 hot asphalt at 25 lbs./sq. or applied in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or SopraStar Adhesive at a rate of 1.5 gal./sq. 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

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 hot asphalt at 25 lbs./sq. or applied in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at a rate of 1.5 gal./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:** -45 psf. (See General Limitation #7.)



**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Wood/Steel/Concrete/Lightweight Concrete/Cementitious Wood Fiber/Gypsum  
**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.

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, ENRGY 3, ENRGY 3 25 PSI, Multi-Max FA-3, H-Shield, M-Shield, Sopra-ISO r (flat or tapered) Minimum 1.4" thick</b>	N/A	N/A
<b>Top Insulation Layer (Optional)</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Approved High Density Fiberboard, Structodek High Density Fiberboard Minimum ½" thick</b>	N/A	N/A
<b>Fesco Board Minimum ¾" thick</b>	N/A	N/A
<b>DensDeck, SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick</b>	N/A	N/A
<b>Sopraboard Minimum 1/8" thick</b>	N/A	N/A
<b>DensDeck DuraGuard Fireguard Type X Gypsum Board Minimum 5/8" thick</b>	N/A	N/A

**Note:** Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

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

**Fastening #1:** *(wood, steel, concrete)* Attach base sheet using SFS Dekfast #14 Fasteners with Dekfast Galvalume Steel Hex Plates spaced 9" o.c. in a 4" lap and 12" o.c. in two staggered rows in the center of the sheet.

**Fastening #2:** *(lightweight concrete, cementitious wood fiber, gypsum)* Attach base sheet using TPR Peel Rivet fasteners with SFS Dekfast Galvalume Steel Hex Plates spaced 9" o.c. in a 4" lap and 12" o.c. in two staggered rows in the center of the sheet.

**Note:** Base sheet fasteners shall be tested for withdrawal resistance in compliance with TAS 105 to confirm compliance with the wind load requirements of applicable Building Code.



**Ply Sheet:** One or more plies of Elastophene Flam\*, Elastophene Flam 2.2\*, Sopralene Flam 180\*, Sopralene Flam 250\*, Sopralene 180 SP, Sopralene 250 SP, heat welded  
Or

One or more plies 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 ASTM D 2178 Type IV or 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. 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, Sopralast 50 TV Alu, heat welded  
Or

Elastophene FR GR, 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:** -45 psf. (See General Limitation #9)

**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Lightweight Concrete/Cementitious Wood Fiber/Gypsum  
**System Type D(3):** Membrane fastened over preliminary fastened insulation.

**All General and System Limitations apply.**

One or more layers of any of the following insulations.

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Any Approved Polyisocyanurate insulation listed in Table 2, flat or tapered. Minimum 1.5" thick</b>	<b>Any Approved Fastener for Deck</b>	<b>1:6.4</b>

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

**Base Layer:** One layer Soprafix, Soprafix Base 622, Soprafix [X], Soprafix Base 614, Sopralene Flam 180\* or Sopralene Flam 250\*, mechanically attached with minimum 2.7" Twin Loc-Nails spaced 9" o.c. within the 4" wide lap and 9" o.c. in one row centered in the field. Center row is covered with an 8" wide strip of Soprafix, Soprafix Base 622, Soprafix [X]\*, Soprafix Base 614\*, Sopralene Flam 180\* or Sopralene Flam 250\*.  
 \*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, Sopralene Flam 250\*, Sopralene 250 SP, heat welded.  
 Or  
 Elastophene Sanded, Elastophene Sanded 3.0, 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 hot asphalt at 25 lbs./sq. or applied in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or SopraStar Adhesive at a rate of 1.5 gal./sq. 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.

**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 7I:** Recover, Insulated  
**Deck Description:** Wood/Steel/Concrete/Lightweight Concrete/Cementitious Wood Fiber/Gypsum  
**System Type D(4):** 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.

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, ENRGY 3, Multi-Max FA-3, H-Shield, M-Shield, Sopra-ISO r (flat or tapered) Minimum 1.4" thick</b>	N/A	N/A
<b>Top Insulation Layer (Optional)</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Approved High Density Fiberboard, Structodek High Density Fiberboard Minimum 1/2" thick</b>	N/A	N/A
<b>Fesco Board Minimum 3/4" thick</b>	N/A	N/A
<b>DensDeck, SECUROCK Gypsum-Fiber Roof Board Minimum 1/4" thick</b>	N/A	N/A
<b>Sopraboard Minimum 1/8" thick</b>	N/A	N/A
<b>DensDeck DuraGuard Fireguard Type X Gypsum Board Minimum 5/8" thick</b>	N/A	N/A

**Note:** Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

**Base Sheet:** One ply of Soprafix, Soprafix Base 622, Soprafix [S]\*, Soprafix Base 612, Soprafix [X]\*, Soprafix Base 614\*, Sopralene Flam 180\*, Sopralene Flam 250\*, fastened to the deck as described below:  
 \*Requires heat welded ply or cap membrane.

**Fastening #1:** **(wood, steel, concrete)** Attach base sheet using SFS Dekfast #14 or Soprema #14 fasteners with Soprafix 2" SB Stress Plates spaced 18" o.c. in a 4" wide heat welded or bituminous taped seam.  
**(Maximum Design Pressure –45 psf.; See General Limitation #9)**

**Fastening #2:** **(wood, steel, concrete)** Attach base sheet using SFS Dekfast #14 fasteners with Dekfast Galvalume Steel Hex Plates spaced 24" o.c. in the center of the sheet. Laps are heat welded. Fastener rows are stripped in with a 7" wide section of heat welded base sheet membrane.  
**(Maximum Design Pressure –45 psf.; See General Limitation #9)**



**Fastening #3:** (lightweight concrete, cementitious wood fiber, gypsum) Attach base sheet using TPR Peel Rivet fasteners with Soprafix 2" SB Stress Plates spaced 18" o.c. in a 4" wide heat welded or bituminous taped seam.

*(Maximum Design Pressure –45 psf.; See General Limitation #9)*

**Fastening #4:** (lightweight concrete, cementitious wood fiber, gypsum) Attach base sheet using TPR Peel Rivet fasteners with Soprafix 2" SB Stress Plates spaced 24" o.c. in the center of the sheet. Laps are heat welded. Fastener rows are stripped in with a 7" wide section of heat welded base sheet membrane.

*(Maximum Design Pressure –45 psf.; See General Limitation #9)*

**Fastening #5:** (steel, concrete) Attach base sheet using Soprema #14 Fasteners and Soprafix 2" SB Stress Plates spaced 12" o.c. in a 5" wide heat welded lap.

*(Maximum Design Pressure –60 psf.; See General Limitation #7.)*

**Note:** Base sheet fasteners shall be tested for withdrawal resistance in compliance with TAS 105 to confirm compliance with the wind load requirements with applicable Building Code.

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

**Membrane:** Elastophene Flam GR, Elastophene Flam FR GR or 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, UNILAY, 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 7I:** Recover, Insulated  
**Deck Description:** Wood/Steel/Concrete/Lightweight Concrete/Cementitious Wood Fiber/Gypsum  
**System Type D(5):** All layers of insulation and base sheet simultaneously attached

**All General and System Limitations apply.**

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s (flat or tapered) Minimum 1.5" thick</b>	<b>Approved Fastener for Deck</b>	<b>1:6.4</b>

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

**Base Sheet:** Soprafix, Soprafix Base 622, Soprafix [X], Soprafix Base 614, Soprafix-e or Soprafix Base 641, mechanically attached with OMG Polymer Batten Strip-TL and OMG #15 Roofgrip Large Head fasteners, Trufast Flat Batten Bar or Trufast Recessed Batten Bar and Trufast #15 EHD Fasteners, or Soprafix MBB-R with Soprema #15 HD Fasteners, spaced 12" o.c. in the min. 5" lap.

\*Requires heat welded ply or cap membrane.

**Ply Sheet:  
(Optional)** One or more layers of Sopralene Flam 180\*, Sopralene 180 SP 3.5, Sopralene Flam 250\*, Sopralene 250 SP, heat welded.

\*Requires heat welded cap membrane.

**Membrane:** 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:** -75 psf. (with all other cap membranes) (See General Limitation #7.)



**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Steel/Concrete  
**System Type D(6):** 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.

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam-II, Sopra-ISO s, H-Shield, M-Shield, Sopra-ISO r (flat or tapered) Minimum 1.5” thick</b>	N/A	N/A
<b>DensDeck, SECUROCK Gypsum-Fiber Roof Board Minimum 0.25” thick</b>	N/A	N/A
<b>Sopraboard Minimum 1/8” thick</b>	N/A	N/A
<b>EnergyGuard Isocyanurate Composite, Fesco Board, Approved Perlite Minimum 0.75” thick</b>	N/A	N/A

**Note: Insulation layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.**

**Base Sheet:** One ply of Soprafix, Soprafix Base 622, Soprafix-e or Soprafix Base 641, fastened to the deck as described below:  
 \*Requires heat welded ply or cap membrane.

**Fastening #1:** Attach base sheet using Trufast Recessed Batten Bar with Trufast #14 HD Fasteners or Soprafix MBB-R with Soprema #14 MP Fasteners spaced 12” o.c. in the minimum 5” wide lap.

**Ply Sheet:  
(Optional)** One or more plies 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, 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:** -75 psf. (General Limitation #7)



**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Steel/Concrete  
**System Type D(7):** 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.

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam-II, Sopra-ISO s (flat or tapered) Minimum 1.5” thick</b>	N/A	N/A
<b>DensDeck, SECUROCK Gypsum-Fiber Roof Board Minimum 0.25” thick</b>	N/A	N/A
<b>Sopraboard Minimum 1/8” thick</b>	N/A	N/A
<b>EnergyGuard Isocyanurate Composite, Fesco Board, Approved Perlite Minimum 0.75” thick</b>	N/A	N/A

**Note:** Insulation layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

**Base Sheet:** One ply of Soprafix, Soprafix Base 622, Soprafix-e or Soprafix Base 641, fastened to the deck using OMG Polymer Batten Strip-TL with OMG #15 Roofgrip Large Head fasteners or Trufast Recessed Batten Bar with Trufast #14 HD Fasteners or Soprafix MBB-R with Soprema #14 MP Fasteners spaced 12” o.c. in the minimum 5” wide lap.

**Ply Sheet:  
(Optional)** One or more plies of Elastophene Sanded, Elastophene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded, Sopralene 250 Sanded or one or more plies of Type IV or Type 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 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:** -75 psf. (General Limitation #7)



**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete  
**System Type D(8):** Membrane attached over preliminary fastened insulation.

**All General and System Limitations apply.**

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Any approved insulations and/or coverboard listed in Table 2.</b>	N/A	N/A

**Note: Membrane fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements.**

**Base Sheet:** None

**Ply Sheet:** None

**Membrane:** One ply of UNILAY membrane fastened through the insulation to the deck using Dekfast #15 HS Fasteners or Soprema #15 Fasteners with approved plates spaced 12" o.c. in a 6" wide lap. The side lap fastener row is encapsulated in the heat welded 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:** -82.5 psf. (See General Limitation #7.)



**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Lightweight Concrete/Cementitious Wood Fiber/Gypsum  
**System Type D(9):** Membrane fastened over preliminary fastened insulation.

**All General and System Limitations apply.**

One or more layers of any of the following insulations.

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Any approved insulations and/or coverboards listed in Table 2.</b>	<b>6</b>	<b>1:6.4</b>

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

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

**Base Layer:** One layer Soprafix, Soprafix Base 622, Soprafix [X]\*, Soprafix Base 614\*, Sopralene Flam 180\*, or Sopralene Flam 250\*, mechanically attached with Twin-Loc Nails spaced 6" o.c. through OMG Polymer Batten Strip-TL, ES Products Batten Bar-TL, Trufast Twin Loc Batten Bar or Dekfast Coiled Batten Strip or Soprafix MBB-R, placed in the lap and in one row centered in the field. Center fastener row is covered with an 8" wide strip of Sopralene Flam Stick\*, Sopralene Stick, self-adhered.  
 \*Requires heat welded ply or cap membrane.

**Ply Sheet:** One or more layers of Sopralene Flam 180\*, Sopralene Flam 250\* heat welded.  
**(Optional)** \*Requires heat welded cap membrane.

**Membrane:** 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:** -82.5 psf. (See General Limitation #7.)



**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Wood/Steel/Concrete/Lightweight Concrete/Cementitious Wood Fiber/Gypsum  
**System Type D(10):** Membrane fastened over preliminarily secured insulation

**All General and System Limitations apply.**

One or more layers of any of the following insulations.

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Any approved insulations and/or coverboards listed in Table 2.</b>		
	<b>Approved Fastener for Deck</b>	<b>1:6.4</b>

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

**Base Sheet:** Soprafix, Soprafix Base 622, Soprafix [X], Soprafix Base 614, Soprafix-e or Soprafix Base 641, mechanically attached with OMG Polymer Batten Strip-TL and OMG #15 Roofgrip Large Head fasteners, Trufast Flat Batten Bar and Trufast #15 EHD Fasteners, Soprema MBB-R and Soprema #15 fasteners or SFS Dekfast Coiled Batten Bar and Dekfast #15 Fasteners, spaced 12” o.c. in the min. 5” lap.

\*Requires heat welded ply or cap membrane.

**Ply Sheet:  
(Optional)** One or more layers of Sopralene Flam 180\*, Sopralene 180 SP 3.5, Sopralene Flam 250\*, Sopralene 250 SP, heat welded.

\*Requires heat welded cap membrane.

**Membrane:** 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, 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:** -97.5 psf. (with all other cap membranes) (See General Limitation #7.)



**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Wood/Steel/Concrete/Lightweight Concrete/Cementitious Wood Fiber/Gypsum  
**System Type D(11):** Membrane fastened over preliminarily secured insulation

**All General and System Limitations apply.**

One or more layers of any of the following insulations.

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Any approved insulations and/or coverboards listed in Table 2.</b>		
	<b>Approved Fastener for Deck</b>	<b>1:6.4</b>

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

**Base Sheet:** Soprafix or Soprafix Base 622, mechanically attached with OMG Polymer Batten Strip-TL and OMG #15 Roofgrip Large Head fasteners, Trufast Flat Batten Bar and Trufast #15 EHD Fasteners, Soprema MBB-R and Soprema #15 fasteners or SFS Dekfast Coiled Batten Bar and Dekfast #15 Fasteners, spaced 12” o.c. in the min. 4” heat welded lap.

\*Requires heat welded ply or cap membrane.

**Ply Sheet:  
(Optional)** One or more layers of Sopralene Flam 180\*, Sopralene 180 SP 3.5, Sopralene Flam 250\*, Sopralene 250 SP, heat welded.

\*Requires heat welded cap membrane.

**Membrane:** 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:** -105 psf. (See General Limitation #7.)



**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Wood/Steel/Concrete/Lightweight Concrete/Cementitious Wood Fiber/Gypsum  
**System Type D(12):** Membrane fastened over preliminarily secured insulation

**All General and System Limitations apply.**

One or more layers of any of the following insulations.

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Any approved insulations and/or coverboards listed in Table 2.</b>		
	<b>Approved Fastener for Deck</b>	<b>1:6.4</b>

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

**Base Sheet:** Soprafix or Soprafix Base 622, mechanically attached with OMG Polymer Batten Strip-TL and OMG #15 Roofgrip Large Head fasteners, Trufast Flat Batten Bar and Trufast #15 EHD Fasteners, Soprema MBB-R and Soprema #15 fasteners or SFS Dekfast Coiled Batten Bar and Dekfast #15 Fasteners, spaced 6” o.c. in every other minimum 4” heat welded lap.

Intermediate, non-fastened laps are minimum 3” wide and heat welded.

\*Requires heat welded ply or cap membrane.

**Ply Sheet:  
(Optional)** One or more layers of Sopralene Flam 180\*, Sopralene 180 SP 3.5, Sopralene Flam 250\*, Sopralene 250 SP, heat welded.

\*Requires heat welded cap membrane.

**Membrane:** 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.

\*Requires approved Surfacing.

**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:** -120 psf. (with all other cap membranes) (See General Limitation #7.)



**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Steel/Concrete  
**System Type D(13):** All layers of insulation and base sheet simultaneously attached.

**All General and System Limitations apply.**

**Thermal Barrier: (Optional)** Minimum 5/8” thick SECUROCK Gypsum-Fiber Roof Board, DensDeck, DensDeck Prime or DensDeck DuraGuard, pre-secured with a maximum contributory area of 1:4 ft<sup>2</sup>

**Vapor Barrier: (Optional)** One or more layers of Elastophene Sanded, Elastophene Sanded 3.0, Elastophene HS Sanded, Elastophene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded, Sopralene 250 Sanded, Elastophene PS, Elastophene 180 PS, Sopralene 180 PS 2.2, adhered in hot asphalt at 25 lbs./sq. or applied in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at a rate of 1.5 gal./sq.

Or

One or two plies of Sopra IV or Sopra VI adhered in hot asphalt at 25 lbs./sq.

Or

Elastophene Flam, Elastophene Flam 2.2, Elastophene SP, Elastophene SP 3.0, Elastophene Flam HS, Sopralene 180 SP, Sopralene 180 SP 3.5, Sopralene 250 SP, Sopralene Flam 180, Sopralene Flam 250, heat welded.

One or more layers of any of the following insulations.

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam-II, Sopra-ISO s, ISO 95+ GL, H-Shield, ENRGY 3, Multi-Max 3, M-Shield, Sopra-ISO r Minimum 1.5” thick</b>	N/A	N/A

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

<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>SECUROCK Gypsum-Fiber Roof Board, DensDeck, DensDeck Prime, DensDeck DuraGuard Minimum 0.5” thick</b>	2, 31, 3, 20, 21	1:4 ft <sup>2</sup>

**Note: Insulation layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.**

**Primer: (Optional)** Coverboard is primed with an approved ASTM D41 asphalt primer at a rate of 100-150 ft<sup>2</sup>/gal.

**Base Sheet:** Sopralene Flam 180, Sopralene Flam 250, Soprafix, Soprafix Base 622, Soprafix [F], Soprafix Base 613, Soprafix [S], Soprafix Base 612, Soprafix [X], Soprafix Base 614, Soprafix-e or Soprafix Base 641 fastened as specified below:



**Fastening #1:** Heat weld base membrane to the coverboard with minimum 3” laps. Mechanically attach heat welded base sheet with Soprema #14 or Soprema #15 fasteners and Soprema 2” SB Stress plates, Dekfast #14 or Dekfast #15 HS fasteners with Dekfast IF-2-SB, Dekfast Galvalume Steel Round 2-3/8” 20 ga. Barbed plates, Trufast #15 EHD Fasteners with Trufast 2” Barbed Metal Stress Plates or Trufast 2.4” Barbed Seam Plates, Soprema #15 HD Fasteners with Soprema 2” Seam Plates or Soprafix 2-3/8” SB Stress Plates, spaced maximum 12” o.c. through the side laps and two equally spaced staggered rows in the field of the membrane.

*(Maximum Design Pressures –165 psf.; See General Limitation #7.)*

**Fastening #2** Mechanically attach base sheet with Soprema #14 or Soprema #15 fasteners and Soprema 2” SB Stress plates, Dekfast #14 or Dekfast #15 HS fasteners with Dekfast IF-2-SB, Dekfast Galvalume Steel Round 2-3/8” 20 ga. Barbed plates, Trufast #15 EHD Fasteners with Trufast 2” Barbed Metal Stress Plates or Trufast 2.4” Barbed Seam Plates, Soprema #15 HD Fasteners with Soprema 2” Seam Plates or Soprafix 2-3/8” SB Stress Plates, spaced maximum 12” o.c. through the minimum 3” wide side lap and two equally spaced staggered rows in the field of the membrane.

*(Maximum Design Pressures –150 psf.; See General Limitation #7.)*

**Ply Sheet:** Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HS, Sopralene Flam 180, Sopralene Flam 250, heat welded

**Membrane:** Elastophene Flam FR GR, Elastophene Flam GR, Elastophene Flam HS FR GR, Elastophene Flam LS FR GR, Sopralast 50 TV Alu, Soprastar Flam, Sopralene Flam, 180 FR GR, Sopralene Flam 180 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:** See Fastening Options Above

**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Steel/Concrete

**System Type D(14):** All layers of insulation and base sheet simultaneously attached.

**All General and System Limitations apply.**

**Thermal Barrier: (Optional)** Minimum 5/8” thick SECUROCK Gypsum-Fiber Roof Board, DensDeck, DensDeck Prime or DensDeck DuraGuard, pre-secured with a maximum contributory area of 1:4 ft<sup>2</sup>

**Vapor Barrier: (Optional)** One or more layers of Elastophene Sanded, Elastophene Sanded 3.0, Elastophene HS Sanded, Elastophene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded, Sopralene 250 Sanded, Elastophene PS, Elastophene 180 PS, Sopralene 180 PS 2.2, adhered in hot asphalt at 25 lbs./sq. or applied in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at a rate of 1.5 gal./sq.  
 Or  
 One or two plies of Sopra IV or Sopra VI adhered in hot asphalt at 25 lbs./sq.  
 Or  
 Elastophene Flam, Elastophene Flam 2.2, Elastophene SP, Elastophene SP 3.0, Elastophene Flam HS, Sopralene 180 SP, Sopralene 180 SP 3.5, Sopralene 250 SP, Sopralene Flam 180, Sopralene Flam 250, heat welded.

One or more layers of any of the following insulations.

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam-II, Sopra-ISO s, ISO 95+ GL, H-Shield, ENRGY 3, Multi-Max 3, M-Shield, Sopra-ISO r Minimum 1.5” thick</b>	N/A	N/A

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

<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>SECUROCK Gypsum-Fiber Roof Board, DensDeck, DensDeck Prime, DensDeck DuraGuard Minimum 0.5” thick</b>	2, 31, 3, 20, 21	1:4 ft <sup>2</sup>

**Note: Insulation layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.**

**Primer: (Optional)** Coverboard is primed with an approved ASTM D41 asphalt primer at a rate of 100-150 ft<sup>2</sup>/gal.

**Base Sheet:** Sopralene 180 SP, Sopralene 180 SP 3.5, Sopralene 250 SP, fastened as specified below:



- Fastening #1:** Heat weld base sheet to coverboard with minimum 3” wide side lap. Mechanically attach heat welded base sheet with Soprema #14 or Soprema #15 fasteners and Soprema 2” SB Stress plates, Dekfast #14 or Dekfast #15 HS fasteners with Dekfast IF-2-SB, Dekfast Galvalume Steel Round 2-3/8” 20 ga. Barbed plates, Trufast #15 EHD Fasteners with Trufast 2” Barbed Metal Stress Plates or Trufast 2.4” Barbed Seam Plates, Soprema #15 HD Fasteners with Soprema 2” Seam Plates or Soprafix 2-3/8” SB Stress Plates, spaced maximum 12” o.c. through the side laps and two equally spaced staggered rows in the field of the membrane.  
*(Maximum Design Pressures –165 psf.; See General Limitation #7.)*
- Fastening #2** Mechanically attach heat welded base sheet with Soprema #14 or Soprema #15 fasteners and Soprema 2” SB Stress plates, Dekfast #14 or Dekfast #15 HS fasteners with Dekfast IF-2-SB, Dekfast Galvalume Steel Round 2-3/8” 20 ga. Barbed plates, Trufast #15 EHD Fasteners with Trufast 2” Barbed Metal Stress Plates or Trufast 2.4” Barbed Seam Plates, Soprema #15 HD Fasteners with Soprema 2” Seam Plates or Soprafix 2-3/8” SB Stress Plates, spaced maximum 12” o.c. through the minimum 3” wide side lap and two equally spaced staggered rows in the field of the membrane.  
*(Maximum Design Pressures –150 psf.; See General Limitation #7.)*
- Ply Sheet:** Elastophene 180 PS, Sopralene 180 PS 2.2, Elastophene PS, adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Membrane:** Elastophene Flam FR GR, Elastophene Flam GR, Elastophene Flam HS FR GR, Elastophene Flam LS FR GR, Sopralast 50 TV Alu, Soprastar Flam, Sopralene Flam, 180 FR GR, Sopralene Flam 180 GR, Sopralene Flam 250 FR GR, heat welded with minimum 3” wide side 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:** See Fastening Options Above

**Membrane Type:** SBS  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Steel/Concrete

**System Type D(15):** 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.

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam-II, Sopra-ISO s, ISO 95+ GL, H-Shield, ENRGY 3, Multi-Max-3, M-Shield, Sopra-ISO r Minimum 1.5" thick</b>	N/A	N/A

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

<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>SECUROCK Gypsum-Fiber Roof Board, DensDeck, DensDeck Prime, DensDeck DuraGuard Minimum 0.5" thick</b>	2, 31, 3, 20, 21	1:4 ft <sup>2</sup>

**Note: Insulation layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.**

**Primer:** Coverboard is primed with an approved ASTM D41 asphalt primer at a rate of 100-150 ft<sup>2</sup>/gal.  
**(Optional)**

**Base Sheet:** Sopralene 180 SP, Sopralene 180 SP 3.5, Sopralene 250 SP, Soprafix [F]\*, Soprafix Base 613\*, Soprafix [S]\*, Soprafix Base 612\*, Soprafix [X]\*, Soprafix Base 614\*, Soprafix\* or Soprafix Base 622, heat welded to coverboard.

\*Requires heat welded cap membrane.

**Fastening #1:** Heat weld base sheet to coverboard with minimum 3" wide side lap. Mechanically attach heat welded base sheet with Soprema #14 or Soprema #15 fasteners and Soprema 2" SB Stress plates, Dekfast #14 or Dekfast #15 HS fasteners with Dekfast IF-2-SB, Dekfast Galvalume Steel Round 2-3/8" 20 ga. Barbed plates, Trufast #15 EHD Fasteners with Trufast 2" Barbed Metal Stress Plates or Trufast 2.4" Barbed Seam Plates, Soprema #15 HD Fasteners with Soprema 2" Seam Plates or Soprafix 2-3/8" SB Stress Plates, spaced maximum 12" o.c. through the side laps and two equally spaced staggered rows in the field of the membrane.

*(Maximum Design Pressures –165 psf.; See General Limitation #7.)*



**Fastening #2** Mechanically attach base sheet with Soprema #14 or Soprema #15 fasteners and Soprema 2” SB Stress plates, Dekfast #14 or Dekfast #15 HS fasteners with Dekfast IF-2-SB, Dekfast Galvalume Steel Round 2-3/8” 20 ga. Barbed plates, Trufast #15 EHD Fasteners with Trufast 2” Barbed Metal Stress Plates or Trufast 2.4” Barbed Seam Plates, Soprema #15 HD Fasteners with Soprema 2” Seam Plates or Soprafix 2-3/8” SB Stress Plates, spaced maximum 12” o.c. through the minimum 3” wide side lap and two equally spaced staggered rows in the field of the membrane.

*(Maximum Design Pressures –150 psf.; See General Limitation #7.)*

**Ply Sheet:** Elastophene SP, Elastophene SP 3.0, Sopralene 180 SP, Sopralene 180 SP 3.5, Sopralene 250 SP, heat welded

Or

Elastophene 180 Sanded, Sopralene 180 Sanded 2.2, Elastophene HS Sanded, Elastophene Sanded, Sopralene 180 Sanded, Sopralene 250 Sanded, or 1-2 plies of Sopra IV or Sopra VI, adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

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

**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 Options Above

**Membrane Type:** SBS  
**Deck Type 7:** Recover, Non-Insulated  
**Deck Description:** Lightweight Concrete/Cementitious Wood Fiber/Gypsum  
**System Type E(1):** Base sheet mechanically fastened.

**All General and System Limitations apply.**

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

**Base Layer:** One layer Soprafix, Soprafix Base 622, Soprafix [X], Soprafix Base 614, Soprafix-  
e or Soprafix Base 641, mechanically attached with Twin-Loc Nails spaced 6" o.c.  
through OMG Polymer Batten Strip-TL, ES Products Batten Bar-TL, Trufast Twin  
Loc Batten Bar or SFS Dekfast Coiled Batten Strip or Soprafix MBB-R, placed in  
the lap and in one row centered in the field. Center row is covered with an 8" wide  
strip of Sopralene Flam Stick\* or Sopralene Stick, self-adhered. \*Requires heat  
welded ply or cap membrane.

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

Or

Elastophene Sanded, Elastophene Sanded 3.0, 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 hot asphalt at 25 lbs./sq. or applied in FM Adhesive, FM  
Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at a rate of  
1.5 gal./sq. 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, Soprastar 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 hot asphalt at 25 lbs./sq. or applied in  
FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar  
Adhesive at a rate of 1.5 gal./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:** -45 psf. (See General Limitation #7.)



**Membrane Type:** SBS  
**Deck Type 7:** Recover, Non-Insulated  
**Deck Description:** Wood/Steel/Concrete/Lightweight Concrete/Cementitious Wood Fiber/Gypsum  
**System Type E(2):** Base sheet mechanically fastened.

**All General and System Limitations apply.**

**Base Sheet:** One ply of Sopra G, Modified Sopra G, Ventsulation Felt, Soprabase, Soprabase S, Soprabase TG\* fastened to the deck as described below:

**Fastening #1:** *(wood, steel, concrete)* Attach base sheet using SFS Dekfast #14 Fastener with Dekfast Galvalume Steel Hex Plates spaced 9" o.c. in a 4" lap and 12" o.c. in two staggered rows in the center of the sheet.

**Fastening #2:** *(lightweight concrete, cementitious wood fiber, gypsum)* Attach base sheet using TPR Peel Rivet fasteners with SFS Dekfast Galvalume Steel Hex Plates spaced 9" o.c. in a 4" lap and 12" o.c. in two staggered rows in the center of the sheet.

**Fastening #3:** *(lightweight concrete, cementitious wood fiber, gypsum)* Attach base sheet using Twin Loc-Nails spaced 9" o.c. in a 2" lap and 18" o.c. in two staggered rows in the center of the sheet.

**Note:** Base sheet fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements.

**Ply Sheet:** One or more plies of Elastophene Flam\*, Elastophene Flam 2.2\*, Sopralene Flam 180\*, Sopralene Flam 250\*, Sopralene 180 SP, Sopralene 250 SP heat welded  
Or  
One or more plies 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 ASTM D 2178 Type IV or 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. 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, Sopralast 50 TV Alu, heat welded  
Or  
Elastophene FR GR, 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:** -45 psf. (See General Limitation #9)



**Membrane Type:** SBS  
**Deck Type 7:** Recover, Non-Insulated  
**Deck Description:** Lightweight Concrete/Gypsum  
**System Type E(3):** Base sheet mechanically fastened.

**All General and System Limitations apply.**

**Base Sheet:** One ply of Sopra G, Soprabase, Soprabase S, Soprabase TG\* fastened to the deck as described below:  
**Fastening:** 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 or more plies of Elastophene Flam\*, Elastophene Flam 2.2\*, Sopralene Flam 180\*, Sopralene Flam 250\*, Sopralene 180 SP, Sopralene 250 SP, heat welded  
Or  
One or more plies 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 ASTM D 2178 Type IV or 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. 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, Sopralast 50 TV Alu, heat welded  
Or  
Elastophene FR GR, 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 7:** Recover, Non-Insulated  
**Deck Description:** Lightweight Concrete/Cementitious Wood Fiber/Gypsum  
**System Type E(4):** Base sheet mechanically fastened

**All General and System Limitations apply.**

**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 Layer:** One layer Soprafix, Soprafix Base 622, Soprafix [X]\*, Soprafix Base 614\*, Sopralene Flam 180\* or Sopralene Flam 250\*, mechanically attached with 1.8” Twin Loc-Nails spaced 9” o.c. within the 4” wide lap and 9” o.c. in one row centered in the field. Center fastener row is covered with an 8” wide strip of Soprafix, Soprafix Base 622, Soprafix [X]\*, Soprafix Base 614\*, Sopralene Flam 180\* or Sopralene Flam 250\*.

\*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, Sopralene Flam 250\*, Sopralene 250 SP, heat welded.  
**(Optional)**

Or

Elastophene Sanded, Elastophene Sanded 3.0, 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 hot asphalt at 25 lbs./sq. or applied in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at a rate of 1.5 gal./sq. 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.

**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 7:** Recover, Non-Insulated

**Deck Description:** Lightweight Concrete/Cementitious Wood Fiber/Gypsum

**System Type E(5):** Base sheet mechanically fastened

**All General and System Limitations apply.**

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

**Base Layer:** Sopralene Flam 180\*, Sopralene 180 SP 3.5, Sopralene Flam 250\*, Sopralene 250 SP, Elastophene 180 Sanded, Sopralene 180 Sanded 2.2, Elastophene 180 PS\*, Sopralene 180 PS 2.2\*, Sopralene 180 Sanded, Sopralene 180 PS\*, Sopralene 180 PS\*, Sopralene 250 Sanded, mechanically attached with 1.8” long Twin Loc-Nails spaced 6” o.c. in a min. 4” lap and 6” o.c. in two evenly spaced staggered rows in the field.  
\*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, Sopralene Flam 250\*, Sopralene 250 SP, heat welded.  
Or  
Elastophene Sanded, Elastophene Sanded 3.0, 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 hot asphalt at 25 lbs./sq. or applied in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at a rate of 1.5 gal./sq. 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  
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 hot asphalt at 25 lbs./sq. or applied in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at a rate of 1.5 gal./sq. to sand surface 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 7:** Recover, Non-Insulated  
**Deck Description:** Lightweight Concrete /Gypsum  
**System Type E(6):** Base sheet mechanically fastened.

**All General and System Limitations apply.**

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

**Fastening:** 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 or more plies of Elastophene Sanded, Elastophene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded, Sopralene 250 Sanded or ASTM D 2178 Type IV or 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. to sand surfaced base membrane.

**Membrane:** Elastophene FR GR, 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 7:** Recover, Non-Insulated

**Deck Description:** Lightweight Concrete/Cementitious Wood Fiber/Gypsum

**System Type E(7):** Base sheet mechanically fastened

**All General and System Limitations apply.**

**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 Layer:** One layer Soprafix, Soprafix Base 622, Soprafix [X], Soprafix Base 614, Soprafix Base 641, mechanically attached with Twin-Loc Nails spaced 6" o.c. through OMG Polymer Batten Strip-TL, ES Products Batten Bar-TL, Trufast Twin Loc Batten Bar or Dekfast Coiled Batten Strip or Soprafix MBB-R, placed in the lap and in one row centered in the field.  
Center fastener row is covered with an 8" wide strip of Sopralene Flam Stick\* or Sopralene Stick, self-adhered. \*Requires heat welded ply or cap membrane.

**Ply Sheet:** One or more layers of Sopralene Flam 180\*, Sopralene Flam 250\* heat welded.  
**(Optional)** \*Requires heat welded cap membrane.

**Membrane:** 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:** -82.5 psf. (with all other cap membranes) (See General Limitation #7.)

**Membrane Type:** SBS  
**Deck Type 7:** Recover, Non-Insulated  
**Deck Description:** Wood/Steel/Concrete/Lightweight Concrete/Cementitious Wood Fiber/Gypsum  
**System Type E(8):** Base sheet mechanically fastened.

**All General and System Limitations apply.**

**Base Sheet:** One ply of Soprafix, Soprafix Base 622, Soprafix [S]\*, Soprafix Base 612, Soprafix [X]\*, Soprafix Base 614, Sopralene Flam 180\* or Sopralene Flam 250, fastened to the deck as described below:

\*Require heat welded ply or cap membrane.

**Fastening #1:** *(wood, steel, concrete)* Attach base sheet using SFS Dekfast #14 or Soprema #14 fasteners with Soprafix 2" SB Stress Plates spaced 18" o.c. in a 4" wide heat welded or bituminous taped seam.

*(Maximum Design Pressure –45 psf.; See General Limitation #9)*

**Fastening #2:** *(wood, steel, concrete)* Attach base sheet using Dekfast #14 fasteners with Dekfast Galvalume Steel 3 in. Round Insulation Plates spaced 24" o.c. in the center of the sheet. Laps are heat welded. Fastener rows are stripped in with a 7" wide section of heat welded base sheet membrane.

*(Maximum Design Pressure –45 psf.; See General Limitation #9)*

**Fastening #3:** *(lightweight concrete, cementitious wood fiber, gypsum)* Attach base sheet using TPR Peel Rivet fasteners with Soprafix 2" SB Stress Plates spaced 18" o.c. in a 4" wide heat welded or bituminous taped seam.

*(Maximum Design Pressure –45 psf.; See General Limitation #9)*

**Fastening #4:** *(lightweight concrete, cementitious wood fiber, gypsum)* Attach base sheet using TPR Peel Rivet fasteners with Soprafix 2" SB Stress Plates spaced 24" o.c. in the center of the sheet. Laps are heat welded. Fastener rows are stripped in with a 7" wide section of heat welded base sheet membrane.

*(Maximum Design Pressure –45 psf.; See General Limitation #9)*

**Fastening #5:** *(lightweight concrete, gypsum)* Attach base sheet using Tri-Fix Fasteners spaced 10" 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 #6:** *(lightweight concrete, gypsum)* Attach base sheet using Tri-Fix 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 an 8" wide strip of heat welded membrane.

*(Maximum Design Pressure –112.5 psf.; See General Limitation #7)*

**Fastening #7:** *(steel, concrete)* Attach base sheet using Soprema #14 Fasteners and Soprafix 2" SB Stress Plates spaced 12" o.c. in a 5" wide heat welded lap.

*(Maximum Design Pressure –60 psf.; See General Limitation #7.)*

**Note:** Base sheet fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements.

**Ply Sheet:  
(Optional)** One or more plies 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, 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.



## RECOVER SYSTEM LIMITATIONS:

1. All System Limitations and General Limitations shall apply. See specific deck type Notice of Acceptance for deck type System Limitations.

## 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.: 11-0119.06  
Expiration Date: 12/31/14  
Approval Date: 08/08/13  
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