MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
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DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

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 Concrete Decks.

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

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

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

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

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

This NOA renews and revises NOA No. 15-0709.14 and consists of pages 1 through 108.
The submitted documentation was reviewed by Jorge L. Acebo.

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Modified Bitumen
Material:	SBS
Deck Type:	Concrete
Maximum Design Pressure:	-525 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
Modified Sopra G	39” x 108’ (3.5 sq.)	ASTM D4601	Fiberglass reinforced modified asphalt base sheet for bonding or mechanically attaching to substrate. **For use as a base/ply sheet only.**
Soprabase	39” x 99’ (3 sq.)	ASTM D4601	Oxidized asphalt, polyester reinforced, sand-surfaced base sheet. **For use as a base/ply sheet only.**
Soprabase S	39” x 65’ (2 sq.)	ASTM D4601	SBS modified bitumen, polyester reinforced, sand-surfaced base sheet. **For use as a base/ply sheet only.**
Sopra IV	36” x 180’ (5 sq.)	ASTM D2178 Type IV	Type IV fiberglass reinforced, smooth surfaced plysheet used in multi-ply systems and complies with ASTM and UL Standards. Applied in hot asphalt or cold adhesive.
Sopra VI	36” x 180’ (5 sq.)	ASTM D2178 Type VI	Type VI fiberglass reinforced, smooth surfaced plysheet used in multi-ply systems and complies with ASTM and UL Standards. Applied in hot asphalt or cold adhesive.
Elastophene Stick	39” x 49’ (1.5 sq.)	ASTM D6163	Self-adhered, sanded surfaced, fiberglass reinforced membranes.
Elastophene Flam Stick	39” x 49’ (1.5 sq.)	ASTM D6163	Self-adhered, sanded surfaced, fiberglass reinforced membranes.
Sopralene Flam Stick	39” x 49’ (1.5 sq.)	ASTM D6164	Self-adhered, polyester reinforced membrane with a release film on the bottom and a sanded top.
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.
Colphene Stick	39" x 33' (1 sq.)	ASTM D6164	Self-adhered, polyester reinforced membrane with a release film on the bottom and a sanded top.
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.

Product	Dimensions	Test Specification	Product Description
Colvent Flam 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 and a plastic burn-off film surface.
Colphene 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 2.2	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	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' (1.5sq.)	ASTM D6163	Glass reinforced modified bitumen membrane with a plastic burn-off film for heat weld bonding to the top side. Applied in hot asphalt, cold adhesive or ribbon stripping.
Elastophene PS 3.0	39" x 49' (1.5sq.)	ASTM D6163	Glass reinforced modified bitumen membrane with a plastic burn-off film for heat weld bonding to the top side. Applied in hot asphalt, cold adhesive or ribbon stripping.
Elastophene SP 2.2	39" x 49' (1.5 sq.)	ASTM D6163	Glass reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Colphene SP 2.2	39" x 49' (1.5 sq.)	ASTM D6163	Glass reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Elastophene SP 3.0	39" x 49' (1 sq.)	ASTM D6163	Glass reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Colphene SP 3.0	39" x 49' (1 sq.)	ASTM D6163	Glass reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Elastophene Flam	39" x 33' (1 sq.)	ASTM D6163	Fiberglass reinforced modified bitumen membrane covered on both sides with a plastic burn-off film. Applied by heat welding.

Product	Dimensions	Test Specification	Product Description
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.
Colphene 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.
Colphene 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 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 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.
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.

Product	Dimensions	Test Specification	Product Description
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).
Colphene 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 3.0	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 Base 611	39" x 33' (1.5 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with a film surface. 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 Base 613	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.

Product	Dimensions	Test Specification	Product Description
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 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).
Colphene Flam 180	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced SBS modified bitumen membrane, both sides covered with a plastic burn-off film. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Sopralene Flam 250	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced SBS modified bitumen membrane, both sides covered with a plastic burn-off film. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film).
Sopralene 180 FR GR	39" x 33' (1 sq.)	ASTM D6164	Non-woven polyester reinforced modified bitumen membrane with fire retardants a sanded bottom and a mineral granules top. Applied in hot asphalt, cold applied adhesive or ribbon stripping (after removal of plastic burn-off film).
Colphene 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 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).

Product	Dimensions	Test Specification	Product Description
Colphene 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 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).
Colphene 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).
Colphene 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 180 FR GR 3.5	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).
Colphene 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).

Product	Dimensions	Test Specification	Product Description
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 Antirock	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.
Elastophene Stick FR GR	39" x 33' (1 sq.)	ASTM D 6163	Self-adhered, granule surfaced, fiberglass reinforced membranes.
Elastophene Stick HR FR GR	39" x 33' (1 sq.)	ASTM D 6163	Self-adhered, granule surfaced, fiberglass reinforced membranes.
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).
Sopralast 50 TV Alu Sanded	various	ASTM D6298	Fiberglass reinforced modified bitumen sheeting sanded on the bottom and faced with aluminum foil. Applied in hot asphalt, cold adhesive or ribbon stripping.
Elastocol 500	various	ASTM D41	Asphalt primer.
Elastocol Stick	various	ASTM D41	Asphalt primer.
Elastocol Stick Zero	Various	ASTM D41	Asphalt primer.
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.
COLPLY Flashing 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.

Product	Dimensions	Test Specification	Product Description
Duotack	5, 50 gallon pail	Proprietary	Two part elastomeric urethane foam adhesive.
Duotack Neo	5, 50 gallon pail	Proprietary	Two part polyurethane foam adhesive.
COLPLY Adhesive	5 gallon pail or 55 gallon drum	Proprietary	Polymer modified cold process membrane adhesive.
COLPLY EF Adhesive	5 gallon pail	Proprietary	Solvent free, polymeric adhesive.
Sopravap'r	45" x 133'	Various	Self-adhering air/vapor barrier membrane.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ACFoam-II, ACFoam-III	Polyisocyanurate foam insulation	Atlas Roofing Corporation
ACFoam Composite	Composite polyisocyanurate insulation board	Atlas Roofing Corporation
ISO 95+ GL	Polyisocyanurate foam insulation	Firestone Building Products Company, LLC
EnergyGuard Polyiso Insulation	Composite polyisocyanurate insulation	GAF
DensDeck, DensDeck Prime	Water resistant gypsum board	Georgia Pacific Gypsum LLC
Sopra-ISO s, Sopra-ISO+ s	Polyisocyanurate foam insulation	SOPREMA, Inc.
M-Shield, M-Shield CG	Polyisocyanurate foam insulation	SOPREMA, Inc.
Sopra-ISO r, Sopra-ISO+ r	Polyisocyanurate foam insulation	SOPREMA, Inc.
Sopra-ISO x	Polyisocyanurate foam insulation	SOPREMA, Inc.
H-Shield, H-Shield CG	Polyisocyanurate foam insulation	Hunter Panels, LLC
ENRGY 3, ENRGY 3 25 PSI, ENRGY 3 AGF, ENRGY 3 CGF	Polyisocyanurate foam insulation	Johns Manville Corp.
Ultra-Max, Multi-Max FA-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, Inc.
Fesco Board	Expanded mineral fiber insulation	Johns Manville Corp.
Sopraboard	Mineral fortified asphaltic cored coverboard	SOPREMA, Inc.
DEXcell FA Glass Mat Roof Board	Gypsum board	National Gypsum Company
DEXcell Cement Roof Board	Cementitious insulation board	National Gypsum Company
Insulfoam EPS	Expanded polystyrene insulation	Insulfoam, a div. of Carlisle Const. Mat., LLC.

APPROVED FASTENERS/ADHESIVES:

Table 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Soprema #12, #14 & #15 Fastener	Fasteners for membrane or insulation attachment to wood, steel or concrete decks.		SOPREMA, Inc.
2.	Dekfast DF-#12-PH3, DF-#14-PH3 & DF-#15-PH3	Insulation fastener		SFS Group USA, Inc.
3.	Dekfast PLT-H-2-7/8	Galvalume AZ50 steel plate	2 $^{7}/_{8}$" x 3 ¼"	SFS Group USA, Inc.
4.	Dekfast PLT-P-R-3	Polypropylene locking plate.	3" x 3 ¼"	SFS Group USA, Inc.
5.	AccuTrac Hextra	Insulation fastener for wood and steel.		OMG, Inc.
6.	OMG 3" Galvalume Steel Plate	Galvalume stress plate.	3" diameter	OMG, Inc.
7.	OMG Flat Bottom Metal Plate	Galvalume stress plate.	3" square	OMG, Inc.
8.	#12 Standard Roofgrip, #14 Roofgrip & #15 Roofgrip	Insulation fastener.		OMG, Inc.
9.	CD-10	Insulation fastener.		OMG, Inc.
10.	Fluted Nail	Insulation fastener.		OMG, Inc.
11.	3 in. Round Metal Plate	Galvalume AZ50 steel plate	3" diameter	OMG, Inc.
12.	OMG Plastic Plate	Polypropylene stress plate	3.25" diameter	OMG, Inc.
13.	Trufast #14 HD Fastener	Insulation fastener for wood, steel and concrete.		Altenloh, Brinck & Co. U.S., Inc.
14.	Trufast #15 EHD Fastener	Insulation fastener for wood, steel and concrete.		Altenloh, Brinck & Co. U.S., Inc.
15.	Trufast 3" Metal Insulation Plate	Galvalume AZ50 steel plate	3" diameter	Altenloh, Brinck & Co. U.S., Inc.
16.	OMG Polymer Batten Strip	Modified polymer batten bar		OMG, Inc.
17.	Dekfast PLT-R-3	Galvalume AZ50 steel plate	3" diameter	SFS Group USA, Inc.
18.	Soprema 3" Round Insulation Plate	Stress plate	3" diameter	SOPREMA, Inc.
19.	Soprafix 2" SB Stress Plate	Stress plate	2" diameter	SOPREMA, Inc.

APPROVED FASTENERS/ADHESIVES:

Table 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
20.	Soprafix 2-3/8" SB Stress Plate	Stress plate	2-3/8" diameter	SOPREMA, Inc.
21.	Soprafix MBB-R	Metal Batten Bar		SOPREMA, Inc.
22.	Soprema #12 DP, #14 MP, #15 HD Fastener	Insulation and membrane fasteners		SOPREMA, Inc.
23.	Trufast Flat Batten Bar	Galvalume AZ55 steel batten bar		Altenloh, Brinck & Co. U.S., Inc.
24.	Trufast Recessed Batten Bar	Galvalume AZ55 steel batten bar with recessed holes		Altenloh, Brinck & Co. U.S., Inc.
25.	#15 Roofgrip Large Head	Carbon steel fasteners used in steel, wood and concrete decks	Various	OMG, Inc.
26.	Dekfast Galvalume Steel Round 2-3/8" 20 ga. Barbed Plate	Galvalume AZ55 steel barbed plate	2-3/8" diameter	SFS Group USA, Inc.
27.	Trufast 2" Barbed Metal Seam Plate	Galvalume steel barbed plate	2" diameter	Altenloh, Brinck & Co. U.S., Inc.
28.	Trufast 2.4" Barbed Metal Seam Plate	Galvalume steel barbed plate	2.4" diameter	Altenloh, Brinck & Co. U.S., Inc.
29.	Dekfast PLT-R-2-4B	Galvalume AZ55 steel plate	2" diameter	SFS Group USA, Inc.
30.	Soprema 2" Seam Plate	Stress plate	2" diameter	SOPREMA, Inc.
31.	Soprema 3" Metal Installation Plate	Stress plate	3" diameter	SOPREMA, Inc.
32.	Trufast 3" Recessed Metal Insulation Plate	Galvalume AZ50 steel plate	3" diameter	Altenloh, Brinck & Co. U.S., Inc.
33.	OMG Heavy Duty	Fasteners for membrane or insulation attachment to wood, steel or concrete decks.	Various	OMG, Inc.
34.	OMG 2-3/8" Barbed XHD Plates	Galvanized steel stress plate	2-3/8" round	OMG, Inc.
35.	Trufast 2.4" Scoop Seam Plate	Galvalume steel stress plate	2.4" Round	Altenloh, Brinck & Co. U.S., Inc.
36.	Soprema 2.4" Seam Plates	Galvalume steel stress plate	2.4" Round	SOPREMA, Inc.
37.	Millennium One Step Foamable Adhesive	Polyurethane two component high rise insulation adhesive		H.B. Fuller Company
38.	Millennium One Step Green Foamable Adhesive	Polyurethane two component high rise insulation adhesive		H.B. Fuller Company

APPROVED FASTENERS/ADHESIVES:

Table 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
39.	Millennium PG-1 Low Viscosity Insulation Adhesive	Polyurethane two component high rise insulation adhesive		H.B. Fuller Company
40.	ICP Adhesives CR-20	Polyurethane two component low rise insulation adhesive		ICP Adhesives and Sealants, Inc.
41.	Insta-Stik Quik Set Insulation Adhesive	Polyurethane one component moisture curing adhesive		DuPont de Nemours, Inc.
42.	OlyBond 500	Polyurethane two component low rise insulation adhesive		OMG, Inc.

APPROVED SURFACING/COATING OPTIONS:

TABLE 4

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

System Number	Manufacturer	Application
1.	Generic	Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq., respectively.
2.	SOPREMA, Inc.	Gravel applied at 400 lbs./sq., adhered with COLPLY Adhesive, COLPLY EF Adhesive at 4 gal./sq.
3.	Karnak Corporation	Karnak (#97 AF) Fibrated Aluminum Roof Coating applied at an application rate of 1.5 gal./sq.
4.	SOPREMA, Inc.	Cural Aluminizer applied at an application rate of 2 gal./sq.
5.	Thermo Manufacturing Systems, LLC	Super Prep Elastomeric Roof Maintenance Coating applied in two coats at an application rate of 1.5 gal./sq./coat.
6.	Quest Construction Products LLC dba United Coatings	United Coatings 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.
7.	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.
8.	Henry Company	HE280DC White Elastomeric Roof Coating applied in two coats at an application rate of 1 gal./sq./coat.
9.	National Coating Corp.	Acryshield® A500 applied in two coats at an application rate of 1 gal./sq./coat.
10.	SOPREMA, Inc.	R Nova Plus applied in two coats. Base coat is applied at 3 gal/sq. (1.2 L/m^2) and allowed to dry. A top coat is applied at 1 gal/sq. (0.4 L/m^2).
11.	Generic	Semi-ceramic coated colored granules.

EVIDENCE SUBMITTED:

Test Agency/Identifier	Report	Name	Date
Florida Testing Engineering & Consulting Inc.	TAS 114-D	GL0904-02	05/01/09
	TAS 114-D	GL0409-03	05/01/09
FM Approvals	1W8A1.AM	FM 4470	07/15/93
	1Z3A6.AM	FM 4470	04/27/95
	3000507	FM 4450	02/16/00
	3009610	FM 4450	10/22/01
	3008869	FM 4470	03/19/01
	3002351	FM 4470	02/28/03
	3017614	FM 4470	02/27/06
	3025860	FM 4470	04/17/06
	3029098	FM 4470	10/25/07
	3032109	FM 4470	07/21/08
	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
	3023749	FM 4470	09/28/06
	3031818	FM 4470	02/20/09
	3X3A7.AM	FM 4470	09/08/94
	3045101	FM 4470	11/05/12
	3037437	FM 4470	11/09/09
	3008441	FM 4470	10/17/00
	3044630	FM 4470	02/10/12
	3042559	FM4470	10/18/11
	3047439	FM 4470	07/22/13
	3045734	FM 4470	04/04/12
	3046765	FM 4470	02/15/13
	3047351	FM 4470	10/09/14
	3051408	FM 4470	08/13/14
	3054633	FM 4470	12/18/15
	RR203650	FM 4470	12/18/15
	3044801	FM 4470	02/27/12
	3053841	FM 4470	03/27/15
	3051109	FM 4470	05/11/15
	3053475	FM 4470	02/11/16
	RR203157	FM 4470	11/06/15
	RR201595	FM 4470	06/17/15
	RR203472	FM 4470	02/05/16
UL LLC	R11436	UL 790	01/15/21
Dynatech Engineering Corp.	10.94.27	TAS 114	10/27/94
	2491-04.95	TAS 114	01/04/95

EVIDENCE SUBMITTED: (CONTINUED)

Test Agency/Identifier	Report	Name	Date
Exterior Research & Design, LLC	2003.02.97-1	TAS 114	02/15/97
	2003-2.04.97-1	TAS 114	04/15/97
	2002.07.97-1	TAS 114	08/15/97
	2755.09.02	TAS 114	10/19/02
	2760.01.05-3	TAS 114	02/22/05
	2761.09.03	TAS 114	09/02/03
	2777.09.05-R2	TAS 114	05/24/02
Trinity | ERD	2774.04.05-R1	TAS 114	04/18/07
	S12370.03.09-1	ASTM D6164	03/06/09
	S12370.03.09-2	ASTM D6164	03/06/09
	S12370.03.09-3	ASTM D6162	03/06/09
	C8500SC.11.07-R1	TAS 117(B) ASTM D6862	08/07/09
	S11440.06.10	ASTM D4798 TAS 110	06/01/10
	S32840.06.10-R1	TAS 117 (B)	12/11/14
	S11440.01.11-R1	ASTM D6164	06/07/12
	S11440.11.10-4	ASTM D2178	11/17/10
	S11440.12.10-1-R1	ASTM D6163	06/07/12
	S43210.11.14	ASTM D1876	11/10/14
	S45520.11.13-R2	Physical Properties	03/26/14
	S39500.12.12-R1	Physical Properties	12/27/12
	S39320.01.12-R1	FM 4474 & TAS 114	05/24/12
	S47170.11.14	FM 4474 & TAS 114	11/10/14
	S32700.12.10-R2	ASTM D6162	07/07/14
	S35860.12.11-1-R1	ASTM D2178	12/12/14
	S35860.12.11-2	ASTM D4601	12/12/11
	S35860.05.12-1-R2	ASTM D6163	02/14/13
	S35860.05.12-2-R3	ASTM D6164	08/28/14
	S35860.05.12-3	ASTM D6164	05/08/12
	S35860.09.12-R2	ASTM D6163	12/12/14
	S14000.08.09-R2	TAS 114	10/09/09
	S39970.07.12-2	ASTM D6164	07/12/12
	S39970.07.12-R1	ASTM D6162	12/12/14
	S39970.07.12-1B-R1	ASTM D6162	12/12/14
	S47160.01.14-R1	FM 4470 & TAS 114 (H)	12/11/14
	S45010.02.14	ASTM D6506	02/07/14
	S43400.08.14-6	ASTM D6164	08/26/14
	S43400.08.14-7-R1	ASTM D6164	11/20/14
	S43400.09.14-9	ASTM D6164	09/02/14
	S43400.09.14-10	ASTM D6298	09/08/14
	S45010.02.14	ASTM D6506	02/07/14
	S43400.08.14-4-R1	ASTM D6163	10/24/14
	S44110.09.14-3	ASTM D6163	09/08/14

EVIDENCE SUBMITTED: (CONTINUED)

Test Agency/Identifier	Report	Name	Date
Trinity | ERD	S44110.09.14-7C	ASTM D6164	09/02/14
	S44220.09.14-1	ASTM D6162	09/08/14
	S44220.09.14-7A	ASTM D4601	09/08/14
	S11440.11.10-3-R2	ASTM D4601/TAS 117(B)	08/26/14
	S39500.02.12	Physical Properties	02/23/12
	S43400.08.14-5-R1	ASTM D6163	05/03/17
PRI Construction Materials Technologies, LLC	SOP-049-02-01	ASTM D1644 / D2196	05/31/12
	SOP-043-02-01	ASTM D4601	02/27/12
	SOP-042-02-01	ASTM D4601	02/27/12
	SOP-041-02-01	ASTM D2178	02/27/12
	SOP-040-02-01	ASTM D2178	02/27/12
	SOP-010-02-01.03	TAS-138	07/26/11
	SOP-050-02-01	ASTM D3019	07/12/12
	SOP-056-02-01	Various	09/12/12

APPROVED ASSEMBLIES:

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank
System Type A(1): One or more layers of insulation adhered with approved adhesive onto vapor barrier adhered onto concrete deck.

All General and System Limitations apply.

Vapor Barrier: Two plies of Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded, Sopralene 250 Sanded fully adhered in COLPLY Adhesive applied at a rate of 1.5 gal/sq. over concrete deck primed with asphaltic primer at 0.75 gal/sq.
(Meets Maximum Design Pressure of -120 psf. See General Limitation #9)

Or

One ply of Sopravap'r, self-adhered to concrete deck primed with Elastocol Stick Zero at 0.5 gal/sq.

(Meets Maximum Design Pressure of –240 psf. See General Limitation #9)

Or

Two plies of Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded or Sopralene 250 Sanded fully adhered in COLPLY EF Adhesive applied at a rate of 1.5 gal/sq.
(Meets Maximum Design Pressure of –270 psf. See General Limitation #9)

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
H-Shield, H-Shield CG, M-Shield, Sopra-ISO r, Sopra-ISO+ r, ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, Multi-Max FA-3, Ultra-Max, Sopra-ISO x, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, EnergyGuard POLYISO Insulation		
Minimum 1.5" thick (flat or tapered)	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK Gypsum-Fiber Roof Board		
Minimum ¼" thick	**N/A**	**N/A**

Note: Top layer of insulation shall be adhered with Duotack or Duotack Neo applied in ½" to ¾" wide ribbons spaced 12" o.c. 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:

One layer of Modified Sopra G, Soprabase, Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS* or Sopralene 250 Sanded adhered in hot asphalt at 25 lbs./sq. or applied in COLPLY EF Adhesive, COLPLY Adhesive applied at a rate of 1.5 – 2 gal./sq.

Or

One layer of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Colvent TG, Colvent 180 TG, Colvent Flam 180 TG*, torch-applied.

Or

One layer of Elastophene Stick, Sopralene Stick, Colphene Stick, Elastophene Flam Stick* or Sopralene Flam Stick*, self-adhered to substrate primed with Elastocol Stick Zero.
*Requires torch-applied ply or cap membrane

Ply Sheet: (Optional)

One layer of Modified Sopra G, Soprabase, Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS* or Sopralene 250 Sanded adhered in hot asphalt at 25 lbs./sq. or applied in COLPLY EF Adhesive, COLPLY Adhesive applied at a rate of 1.5 – 2 gal./sq.

Or

One layer of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Colvent TG, Colvent 180 TG, Colvent Flam 180 TG*, torch-applied.

Or

One layer of Elastophene Stick, Sopralene Stick, Colphene Stick, Elastophene Flam Stick* or Sopralene Flam Stick*, self-adhered.
*Requires torch-applied ply or cap membrane

Membrane:	Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. Or Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in COLPLY Adhesive COLPLY EF Adhesive at 1.5-2.5 gal./sq. to sand surfaced membrane.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	See Vapor Barrier Options Above.

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(2): One or more layers of insulation adhered with approved adhesive onto vapor barrier adhered onto concrete deck.

All General and System Limitations apply.

Vapor Barrier: Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded, Sopralene 250 Sanded fully adhered in COLPLY Adhesive applied at a rate of 1.5 gal/sq. over concrete deck primed with asphaltic primer at 0.75 gal/sq.
(Meets Maximum Design Pressure of –120 psf. See General Limitation #9)

Or

Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded or Sopralene 250 Sanded fully adhered in COLPLY EF Adhesive applied at a rate of 1.5 gal/sq. over concrete deck primed with asphaltic primer at 0.75 gal/sq.
(Meets Maximum Design Pressure of –270 psf. See General Limitation #9)

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
H-Shield, H-Shield CG, M-Shield, Sopra-ISO r, Sopra-ISO+ r, ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, Multi-Max FA-3, Ultra-Max, Sopra-ISO x, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, EnergyGuard POLYISO Insulation		
Minimum 1.5” thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sopraboard		
Minimum 1/8” thick	**N/A**	**N/A**
DEXcell FA Glass Mat Roof Board, DensDeck, SECUROCK Gypsum-Fiber Roof Board		
Minimum 1/4” thick	**N/A**	**N/A**
DEXcell Cement Roof Board		
Minimum 7/16” thick	**N/A**	**N/A**

Note: All insulations shall be adhered to the vapor barrier with Duotack or Duotack Neo applied in ½” to ¾” wide ribbons spaced maximum 12” o.c. 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.

Base Sheet:

One or two plies of Modified Sopra G, Soprabase, Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS* or Sopralene 250 Sanded, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-25 lbs./sq. or in COLPLY Adhesive COLPLY EF Adhesive at 1.5-2.5 gal./sq.

Or

One layer of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Sopralene 250 SP, Colvent TG, Colvent 180 TG, Colvent Flam 180 TG*, torch-applied.

Or

One layer of Elastophene Stick, Sopralene Stick, Colphene Stick, Elastophene Flam Stick*, Sopralene Flam Stick* self-adhered.
*Requires torch-applied ply or cap membrane.

Ply Sheet: (Optional)

One layer of Modified Sopra G, Soprabase, Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS* or Sopralene 250 Sanded adhered in hot asphalt at 25 lbs./sq. or in COLPLY Adhesive COLPLY EF Adhesive at 1.5-2.5 gal./sq.

Or

One layer of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Colvent TG, Colvent 180 TG, Colvent Flam 180 TG*, torch-applied.

Or

One layer of Elastophene Stick, Sopralene Stick, Colphene Stick, Elastophene Flam Stick*, Sopralene Flam Stick* self-adhered.

*Requires torch-applied cap membrane.

Membrane:	Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. Or Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in COLPLY Adhesive COLPLY EF Adhesive at 1.5-2.5 gal./sq. to sand surfaced membrane.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	See Vapor Barrier Options Above.

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(3): 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.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, ENRGY 3, H-Shield, M-Shield, Sopra-ISO r		
Minimum 1.5" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Structodek High Density Fiberboard Roof Insulation		
Minimum ½" thick	**N/A**	**N/A**
Sopraboard		
Minimum 1/8" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered to the primed deck in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2 Duotack, Duotack Neo, Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation 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: (Optional) One or more layers of Modified Sopra G, Sopra-IV, Sopra-VI, Soprabase, Soprabase S 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 layers of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, torch-applied (not permitted as first layer on wood fiber)

Or

One or more layers of Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Elastophene PS*, Elastophene PS 3.0*, Colphene 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 torch-applied cap membrane.

Membrane:	Elastophene Flam FR GR, Elastophene Flam FR+ GR, Elastophene Flam LS FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. Or Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded 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:	-105 psf. (using Structodek High Density Fiberboard Roof Insulation) (See General Limitation #9.) -127.5 psf. (using Sopraboard) (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(4): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, ENRGY 3, Sopra-ISO r, M-Shield, H-Shield		
Minimum 1.4" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Structodek High Density Fiberboard Roof Insulation		
Minimum ½" thick	**N/A**	**N/A**
Sopraboard		
Minimum 1/8" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck with Duotack, Duotack Neo, Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation Adhesive applied in continuous ¾" wide ribbons at a maximum spacing of 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

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

Base Sheet: (Optional) One layer of Modified Sopra G, Soprabase, Soprabase S, Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS*, Sopralene 250 Sanded, adhered in COLPLY Adhesive at 1.5 – 2.0 gallon / square.

*Requires torch-applied ply membrane.

Ply Sheet:	Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180*, Colphene Flam 180*, Sopralene SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Soprafix Base 622, Sopralene Flam 250* or Sopralene 250 SP, torch-applied. (not permitted as first layer on wood fiberboard) Or Colvent TG, Colvent 180 TG, Colvent Flam 180 TG*, torch-applied (not permitted if base membrane is used) (not permitted as first layer on wood fiberboard) Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded*, Sopralene 180 Sanded 2.2, Soprabase, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS*, Sopralene 250 Sanded, adhered in COLPLY Adhesive at 1.5 – 2.0 gallon / square. *Requires torch-applied cap membrane.
Membrane:	Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. Or Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded adhered in COLPLY Adhesive at 1.5 – 2.0 gallon / square to sand surfaced ply membrane.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-105 psf. (using Structodek High Density Fiberboard Roof Insulation) (See General Limitation #9.) -127.5 psf. (using Sopraboard) (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(5): One or more layers of insulation adhered with approved adhesive onto vapor barrier adhered onto concrete deck.

All General and System Limitations apply.

Vapor Barrier

One or two layers of Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded, Sopralene 250 Sanded fully adhered in COLPLY Adhesive applied at a rate of 1.5 gal/sq. over concrete deck primed with asphaltic primer at 0.75 gal/sq.
(Meets Maximum Design Pressure of –120 psf. See General Limitation #9)

Or

One layer of Sopravap'r, self-adhered to concrete deck primed with Elastocol Stick Zero at 0.5 gal/sq.
(Meets Maximum Design Pressure of –240 psf. See General Limitation #9)

Or

One or two layers of Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded or Sopralene 250 Sanded fully adhered in COLPLY EF Adhesive applied at a rate of 1.5 gal/sq.
(Meets Maximum Design Pressure of –270 psf. See General Limitation #9)

Or

One or two layers of Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded, Sopralene 250 Sanded or two or more layers of Modified Sopra G, Sopra-IV, Sopra-VI, Soprabase adhered in hot asphalt at 25 lbs./sq. over concrete deck primed with asphaltic primer at 0.75 gal/sq.
(Meets Maximum Design Pressure of –270 psf. See General Limitation #9)

Or

One or two layers of Elastophene Stick, Sopralene Stick, Colphene Stick, self-adhered to concrete deck primed with Elastocol Stick or Elastocol Stick Zero at 0.5 gal/sq.
(Meets Maximum Design Pressure of –315 psf. See General Limitation #9)

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
H-Shield, M-Shield, Sopra-ISO r, Multi-Max FA-3, Ultra-Max, Sopra-ISO x, ENRGY 3, H-Shield CG, Sopra-ISO+ r, M-Shield CG, ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, ENRGY 3 AGF, ENRGY 3 CGF, EnergyGuard Polyiso Insulation		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sopraboard		
Minimum 1/8" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the vapor barrier in Duotack or Duotack Neo in ½" to ¾" wide ribbons spaced 12" 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.

Base Sheet: One or two plies of Modified Sopra G, Soprabase, Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS* or Sopralene 250 Sanded, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in COLPLY Adhesive or COLPLY EF Adhesive at 1.5 – 2.0 gallons / square.

Or

One layer of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Elastophene Flam HS*, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Sopralene 250 SP, Colvent TG, Colvent 180 TG, Colvent Flam 180 TG*, torch-applied.

Or

One layer of Elastophene Stick, Sopralene Stick, Colphene Stick, Elastophene Flam Stick*, Sopralene Flam Stick* self-adhered.
*Requires torch-applied ply or cap membrane.

Ply Sheet: (Optional)	One layer of Modified Sopra G, Soprabase, Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS* or Sopralene 250 Sanded adhered in hot asphalt at 25 lbs./sq. or applied in COLPLY EF Adhesive or COLPLY Adhesive at a rate of 1.5 – 2 gal./sq. Or One layer of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Colvent TG, Colvent 180 TG, Colvent Flam 180 TG*, torch-applied. Or One layer of Elastophene Stick, Sopralene Stick, Colphene Stick, Elastophene Flam Stick*, Sopralene Flam Stick* self-adhered. *Requires torch-applied cap membrane.
Membrane:	Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. Or Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in COLPLY EF Adhesive COLPLY Adhesive at 1.5 – 2.0 gallons / square. to sand surfaced membrane.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	See Vapor Barrier Options Above.

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(6): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, Sopra-ISO s, H-Shield, M-Shield, Sopra-ISO r, ENRGY 3, Ultra-Max		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck Prime		
Minimum 0.25" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck with 0.75" wide beads of Duotack, Duotack Neo, Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation Adhesive spaced maximum 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.

Base Sheet: (Optional) One or more layers of Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Sopralene 180 Sanded, Sopralene 250 Sanded, fully adhered in COLPLY EF Adhesive or COLPLY Adhesive at 1.5 – 2.0 gallon / square.

Ply Sheet: (Optional) **(Required if no Base Sheet used)** One or more layers Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Sopralene 180 Sanded, Sopralene 250 Sanded, fully adhered in COLPLY EF Adhesive, COLPLY Adhesive at 1.5 – 2.0 gallon / square.

Membrane: Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded fully adhered in COLPLY EF Adhesive, COLPLY Adhesive at 1.5 – 2.0 gallon / square.

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: -135 psf. (See General Limitation #9)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(7): One or more layers of insulation adhered with approved adhesive onto vapor barrier adhered onto primed concrete deck.

All General and System Limitations apply.

Primer: Concrete deck shall be primed with ASTM D-41 primer.

Vapor Barrier: One or two layers of Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded, Sopralene 250 Sanded fully adhered in COLPLY Adhesive, applied at a rate of 1.5 gal/sq. over concrete deck primed with asphaltic primer at 0.75 gal/sq.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ACFoam-II, Sopra-ISO s, ENRGY 3, Multi-Max FA-3, Sopra-ISO x Minimum 1.5" thick	**N/A**	**N/A**

Note: Insulation shall be adhered with Duotack, Duotack Neo, Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation adhesive applied in continuous ½" 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.

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

Base Layer: One layer of Sopralene Flam Stick, self-adhered.

Membrane: Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied.

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

Maximum Design Pressure: -120 psf.; (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(8): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply.

Vapor Barrier: (Optional) Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, torched applied to ASTM D 41 primed concrete deck.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional):	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
H-Shield, M-Shield, Sopra-ISO r, ACFoam-II, Sopra-ISO s, ISO 95+ GL, Multi-Max FA-3, Sopra-ISO x, ENRGY 3		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the vapor barrier or deck in Duotack or Duotack Neo applied in continuous ½" wide ribbons maximum spacing of 12" 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 the final membrane substrate.

Base Sheet: Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene PS*, Elastophene PS 3.0*, Elastophene HS, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS*, Sopralene 250 Sanded adhered in COLPLY Adhesive, COLPLY EF Adhesive at a rate of 1.5 gal./sq. or adhered in hot asphalt at 25 lbs./sq.

Or

Elastophene Flam*, Elastophene Flam 2.2*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Elastophene Flam HS*, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Sopralene 250 SP, Colvent TG, Colvent 180 TG, Colvent Flam 180 TG*, torch-applied.

Membrane:	Elastophene FR GR, Elastophene LS FR GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded adhered in COLPLY Adhesive, COLPLY EF Adhesive at a rate of 1.5 gal./sq. or adhered in hot asphalt at 25 lbs./sq. Or Elastophene Flam FR GR, Elastophene Flam LS FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-150 psf. with DensDeck Prime (See General Limitation #9.) -337.5 psf. with SECUROCK (See General Limitation #9.)

Membrane Type:	SBS
Deck Type 3I:	Concrete Decks, Insulated
Deck Description:	2500 psi structural concrete or concrete plank
System Type A(9):	One or more layers of insulation adhered with approved adhesive
Substrate Preparation:	All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants.
Primer:	Substrate primed with approved ASTM D41 primer
Vapor Barrier (Optional):	One layer of Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Soprafix Base 622, Sopralene 250 SP, torch-applied. Or One layer of Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Sopralene 180 Sanded, Sopralene 250 Sanded, adhered in hot asphalt at 25 lbs./sq.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Insulfoam EPS Minimum 1.5" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sopraboard Minimum 1/4" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of vapor barrier or insulation. All insulation shall be adhered to the vapor barrier or primed deck in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./10ft^2 or Duotack, Duotack Neo, Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation Adhesive in ¾" ribbons spaced 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.

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

Base Sheet:	One layer of Colvent TG, Colvent 180 TG, Colvent Flam 180 TG*, Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180*, Colphene Flam 180*, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Soprafix Base 622, Sopralene Flam 250* or Sopralene 250 SP, torch-applied. Or Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS*, Sopralene 250 Sanded, adhered in hot asphalt at 25 lbs./sq. *Requires torch-applied ply or cap membrane.
Ply Sheet: (Optional)	One or more layers of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180*, Colphene Flam 180*, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Soprafix Base 622, Sopralene Flam 250*, Sopralene 250 SP, torch-applied. Or Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Colphene 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 torch-applied cap membrane.
Membrane:	Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. Or Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded 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:	-144.3 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(10): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Insulfoam EPS		
Minimum 1.5" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sopraboard		
Minimum 1/8" thick	**N/A**	**N/A**
SECUROCK Gypsum-Fiber Roof Board		
Minimum 1/4" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck Duotack, Duotack Neo, Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation Adhesive applied in continuous ½" – ¾" wide ribbons at a maximum spacing of 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

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

Base Sheet: One layer of Sopralene Stick, Colphene Stick, Elastophene Flam Stick* or Sopralene Flam Stick*, self-adhered.
Or
One layer of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180*, Colphene Flam 180*, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Soprafix Base 622, Sopralene Flam 250*, Sopralene 250 SP, Colvent TG, Colvent 180 TG, Colvent Flam 180 TG*, torch-applied.
Or
One layer of Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Colphene 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 in COLPLY Adhesive, at 1.5 – 2.0 gallons / square.
*Requires torch-applied ply or cap membrane.

Ply Sheet: (Optional)	Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180*, Colphene Flam 180*, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Soprafix Base 622, Sopralene Flam 250*, Sopralene 250 SP, torch-applied. Or Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Colphene 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 in COLPLY Adhesive, at 1.5 – 2.0 gallons / square. *Requires torch-applied cap membrane.
Membrane:	Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. Or Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded adhered in hot asphalt at 25 lbs./sq. or in COLPLY Adhesive, at 1.5 – 2.0 gallons / square. to sand surfaced ply membrane.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-144.3 psf. (See Gedneral Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(11): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, Sopra-ISO s, ACFoam-III, Sopra-ISO+ s, EnergyGuard Polyiso Insulation, ENRGY 3 AGF, ENRGY 3 CGF, H-Shield CG, Sopra-ISO+ r, Multi-Max FA-3, Sopra-ISO x, H-Shield, Sopra-ISO r, M-Shield, ENRGY 3		
Minimum 2" thick	**N/A**	**N/A**
ISO 95+ GL (Only with Hot Asphalt, Insta-Stik or HVIA Adhesives)		
Minimum 2" thick		

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**
Sopraboard		
Minimum 1/8" thick	**N/A**	**N/A**

Note: All insulations shall be adhered to the deck with full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2 or Insta-Stik Quik Set Insulation Adhesive, OlyBond 500, ICP Adhesives CR-20 or Millennium One Step Foamable Adhesive or Duotack, Duotack Neo, Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation adhesive applied in continuous ¾" 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.

Primer: (Optional) ASTM D41 or Elastocol 500 applied at 0.75 gal./sq. or Elastocol Stick or Elastocol Stick Zero at 1.0 gal./sq.

Base Sheet: One layer of Sopralene Stick, Colphene Stick, Elastophene Flam Stick*, Sopralene Flam Stick*, self-adhered.
*Requires torch-applied ply or cap.

Membrane:	Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, torch-applied. Or Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded, adhered in hot asphalt at 25 lbs./sq. or applied in COLPLY Adhesive at a rate of 1.5 gal./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:	-172.5 psf. (See General Limitation #9)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(12): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply.

Vapor Barrier: One or two plies of Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, torched applied to ASTM D 41 primed concrete deck.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, H-Shield, M-Shield, Sopra-ISO r, ENRGY 3, ISO 95+ GL, Multi-Max FA-3, Sopra-ISO x (flat or tapered) Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK Gypsum-Fiber Roof Board, DensDeck, DensDeck Prime Minimum 0.25" thick	**N/A**	**N/A**

Note: All insulation shall be adhered in Duotack, Duotack Neo, Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive, Millennium PG-1 Low Viscosity Insulation Adhesive or OlyBond 500 applied in ½" to ¾" wide ribbons spaced 3" 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 the final membrane substrate.

Base Sheet: Colvent Flam 180 TG, Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HS, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 250 or Sopralene 250 SP, torch-applied.

Ply Sheet (Optional): Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HS, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 250 or Sopralene 250 SP, torch-applied.

Membrane: Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torched-applied.

Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-187.5 psf. (See General Limitation #9.)

Membrane Type: SBS
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(13) One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

Primer: Substrate primed with approved ASTM D41 primer.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam II, Sopra-ISO s, ENRGY 3, H-Shield, Sopra-ISO r, M-Shield or Multi-Max FA3, Sopra-ISO x		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck		
Minimum 0.25" thick	**N/A**	**N/A**

Note: All insulations shall be adhered with hot asphalt at 25 lbs./sq. 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.

Base Sheet: Elastophene Flam HS, Elastophene Flam 2.2, Elastophene Flam, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, torch-applied.

Ply Sheet: (Optional) Elastophene Flam HS, Elastophene Flam 2.2, Elastophene Flam, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, torch-applied.

Membrane: Elastophene Flam LS FR GR, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied.

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

Maximum Design Pressure: -187.5 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(14): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam II, Sopra-ISO s, ACFoam III, Sopra-ISO+ s, EnergyGuard POLYISO Insulation, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, H-Shield, Sopra-ISO r, M-Shield, H-Shield CG, Sopra-ISO+ r, Multi-Max FA-3, Sopra-ISO x		
Minimum 1.5" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft2**
DensDeck		
Minimum 0.25" thick	**N/A**	**N/A**

Note: All insulations shall be adhered with Duotack or Duotack Neo applied in continuous ribbons maximum spacing of 12" o.c. 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.

Base Sheet: Elastophene Flam HS, Elastophene Flam 2.2, Elastophene Flam, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, torch-applied.

Ply Sheet: (Optional) Elastophene Flam HS, Elastophene Flam 2.2, Elastophene Flam, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, torch-applied.

Membrane: Elastophene Flam LS FR GR, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied.

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

Maximum Design Pressure: -187.5 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(15): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, Sopra-ISO s, EnergyGuard POLYISO Insulation, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, H-Shield, Sopra-ISO r, M-Shield, H-Shield CG, Sopra-ISO+ r, Multi-Max FA-3, Sopra-ISO x		
Minimum 1.5" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck		
Minimum 0.25" thick	**N/A**	**N/A**

Note: All insulations shall be adhered with Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation Adhesive applied in continuous ribbons maximum spacing of 12" o.c. 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.

Base Sheet: Elastophene Flam HS, Elastophene Flam 2.2, Elastophene Flam, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, torch-applied.

Ply Sheet: (Optional) Elastophene Flam HS, Elastophene Flam 2.2, Elastophene Flam, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, torch-applied.

Membrane: Elastophene Flam LS FR GR, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied.

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

Maximum Design Pressure: -187.5 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(16): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply.

Vapor Barrier: (Optional) One or more plies of Modified Sopra G, Sopra IV, Sopra VI, Soprabase, Soprabase S adhered in COLPLY Adhesive at 1.5 – 2.0 gallons/square to deck primed with ASTM D41 primer.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ACFoam-II, Sopra-ISO s, H-Shield, Sopra-ISO r, M-Shield Minimum 1.4" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck with full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft2 or Duotack, Duotack Neo, Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation adhesive applied in continuous ¾" 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.

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

Base Sheet: One layer of Sopralene Flam Stick, self-adhered.

Ply Sheet: (Optional) One or more layers of Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HS, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Soprafix Base 622, Sopralene Flam 250, Sopralene 250 SP, Colvent Flam 180 TG, torch-applied.

Membrane: Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied.

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

Maximum Design Pressure: -187.5 psf.; With vapor barrier (See General Limitation #9)
-225 psf.; Without vapor barrier (See General Limitation #9)

Membrane Type: SBS

Deck Type 3I: Concrete, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(17): 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.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Approved EPS listed in Table 1 Minimum 1.5" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck Prime Minimum ½" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the primed deck in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2 or Duotack, Duotack Neo, Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation 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 / Ply Sheet: One layer of Elastophene Flam 3.0*, Elastophene Flam*, Elastophene Flam 2.2*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Elastophene Flam HS*, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250* or Sopralene 250 SP, torch-applied.

Or

Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene PS*, Elastophene PS 3.0*, Elastophene HS, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS*, Sopralene 250 Sanded adhered in COLPLY Adhesive, COLPLY EF Adhesive at a rate of 1.5 gal./sq. or adhered in hot asphalt at 25 lbs./sq.

*Requires torch-applied Cap sheet.

Membrane:	Elastophene Flam LS FR GR, Elastophene Flam FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied with minimum 3" wide lap. Or Elastophene FR GR, Elastophene LS FR GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, adhered in COLPLY Adhesive, COLPLY EF Adhesive at a rate of 1.5 gal./sq. or adhered in hot asphalt at 25 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:	-195 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(18): One or more layers of insulation adhered with approved adhesive onto vapor barrier adhered onto concrete deck.

All General and System Limitations apply.

Vapor Barrier: One layer of Elastophene Flam FR GR, Elastophene Flam LS FR GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralast 50 TV Alu or Sopralene Flam Antirock torch-applied over an optional layer of Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Elastophene Flam HS, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, Sopralene 250 SP, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5 or Colphene 180 SP 3.5, torch-applied over concrete deck primed with asphaltic primer at 0.75 gal/sq.

Or

One layer of Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded adhered over an optional layer of Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS, Elastophene PS 3.0, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Colphene 180 PS, Sopralene 180 PS, Sopralene 180 PS 2.2, Sopralene 180 Sanded, Sopralene 250 Sanded adhered in COLPLY Adhesive, COLPLY EF Adhesive at 1.5 – 2.0 gal/sq. over unprimed concrete deck or adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. over concrete deck primed with asphaltic primer at 0.75 gal/sq.

Or

One layer of Elastophene Stick HR FR GR, or Elastophene Stick FR GR, self-adhered over an optional layer of Elastophene Stick, Sopralene Stick, Colphene Stick, Elastophene Flam Stick, Sopralene Flam Stick self-adhered to concrete deck primed with Elastocol Stick or Elastocol Stick Zero at 0.5 gal/sq.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
H-Shield, M-Shield, Sopra-ISO r, Multi-Max FA-3, Ultra-Max, Sopra-ISO x, ENRGY 3, H-Shield CG, Sopra-ISO+ r, M-Shield CG, ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, ENRGY 3 AGF, ENRGY 3 CGF, EnergyGuard Polyiso Insulation		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sopraboard		
Minimum 1/8" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the vapor barrier in Duotack or Duotack Neo in ½" to ¾" wide ribbons spaced 12" 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.

Base Sheet: One or two plies of Modified Sopra G, Soprabase, Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS* or Sopralene 250 Sanded, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in COLPLY Adhesive, COLPLY EF Adhesive at 1.5 – 2.0 gal/sq.

Or

One layer of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Colvent TG, Colvent 180 TG, Colvent Flam 180 TG*, torch-applied.

Or

One layer of Elastophene Stick, Sopralene Stick, Colphene Stick, Elastophene Flam Stick*, Sopralene Flam Stick* self-adhered.
*Requires torch-applied ply or cap membrane.

Ply Sheet: (Optional)	One layer of Modified Sopra G, Soprabase, Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS* or Sopralene 250 Sanded adhered in hot asphalt at 25 lbs./sq. or applied in COLPLY EF Adhesive, COLPLY Adhesive at a rate of 1.5 – 2 gal./sq. Or One layer of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Colvent TG, Colvent 180 TG, Colvent Flam 180 TG*, torch-applied. Or One layer of Elastophene Stick, Sopralene Stick, Colphene Stick, Elastophene Flam Stick*, Sopralene Flam Stick* self-adhered. *Requires torch-applied cap membrane.
Membrane:	Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. Or Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in COLPLY EF Adhesive, COLPLY Adhesive at 1.5 – 2.0 gallons / square. To sand surfaced 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:	-195 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(19): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply.

Primer: Substrate primed with approved ASTM D41 primer.

Dry In Sheet: One layer of Sopralene 180 Sanded, Sopralene 250 Sanded, adhered in hot asphalt at 20-25 lbs./sq.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, Sopra-ISO s, H-Shield, M-Shield, Sopra-ISO r		
Minimum 1.5" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sopraboard		
Minimum 1/8" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of dry in sheet. All insulation shall be adhered to the dry in sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft2. Please refer to Roofing Application Standard RAS 117 for insulation attachment. 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 layers of Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Sopralene 180 Sanded, Sopralene 250 Sanded, adhered in hot asphalt at 25 lbs./sq. adhered in hot asphalt at 25 lbs./sq.

Ply Sheet: (Optional) **(Required if no Base Sheet used)** One or more layers Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Sopralene 180 Sanded, Sopralene 250 Sanded, adhered in hot asphalt at 25 lbs./sq.

Membrane: Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded 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: -210 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(20): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, H-Shield, M-Shield, Sopra-ISO r, ENRGY 3, ISO 95+ GL, Multi-Max FA-3, Sopra-ISO x (flat or tapered)		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sopraboard		
Minimum 1/8" thick	**N/A**	**N/A**

Note: All insulation shall be adhered in with hot asphalt at 25 lbs./sq. or Duotack, Duotack Neo, Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive, Millennium PG-1 Low Viscosity Insulation Adhesive or OlyBond 500 applied in ½" to ¾" wide ribbons spaced 3" 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 the final membrane substrate.

Base Sheet: Colvent TG, Colvent 180 TG, Colvent Flam 180 TG*, Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180*, Colphene Flam 180*, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 250* or Sopralene 250 SP, torch-applied.

Or

Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS* Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Colphene Sanded*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS*, Sopralene 250 Sanded adhered in hot asphalt at 25 lbs./sq.
*Requires torch-applied ply or cap membrane.

Ply Sheet (Optional):	Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180*, Colphene Flam 180*, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 250* or Sopralene 250 SP, torch-applied. Or Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS* Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Colphene Sanded*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS*, Sopralene 250 Sanded adhered in hot asphalt at 25 lbs./sq. *Requires torch-applied ply or cap membrane.
Membrane:	Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torched-applied. Or Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded 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:	-232.5 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(21): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

Primer: Primed with asphaltic primer at 0.75 gal/sq.

Vapor Barrier: One layer of Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 250 SP, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5 or Colphene 180 SP 3.5, torch-applied to a layer of Colvent Flam 180 TG, torched-applied.

Or

One layer of Colvent TG or Colvent 180 TG, torched-applied.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
H-Shield, M-Shield, Sopra-ISO r, Multi-Max FA-3, Ultra-Max, Sopra-ISO x, ENRGY 3, H-Shield CG, Sopra-ISO+ r, M-Shield CG, ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, ENRGY 3 AGF, ENRGY 3 CGF, EnergyGuard Polyiso Insulation		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sopraboard		
Minimum 1/8" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the vapor barrier in Duotack or Duotack Neo in ½" to ¾" wide ribbons spaced 12" 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.

Base Sheet: One or two plies of Modified Sopra G, Soprabase, Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS* or Sopralene 250 Sanded, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in COLPLY Adhesive, COLPLY EF Adhesive at 1.5 – 2.0 gal/sq.

Or

One layer of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Colvent TG, Colvent 180 TG, Colvent Flam 180 TG*, torch-applied.

Or

One layer of Elastophene Stick, Sopralene Stick, Colphene Stick, Elastophene Flam Stick*, Sopralene Flam Stick* self-adhered.
*Requires torch-applied ply or cap membrane.

Ply Sheet: (Optional)	One layer of Modified Sopra G, Soprabase, Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS* or Sopralene 250 Sanded adhered in hot asphalt at 25 lbs./sq. or applied in COLPLY EF Adhesive, COLPLY Adhesive at a rate of 1.5 – 2 gal./sq. Or One layer of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Colvent TG, Colvent 180 TG, Colvent Flam 180 TG*, torch-applied. Or One layer of Elastophene Stick, Sopralene Stick, Colphene Stick, Elastophene Flam Stick*, Sopralene Flam Stick* self-adhered. *Requires torch-applied cap membrane.
Membrane:	Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. Or Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in COLPLY EF Adhesive, COLPLY Adhesive at 1.5 – 2.0 gallons / square. To sand surfaced 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:	-232.5 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(22): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, ENRGY 3, Sopra-ISO r, M-Shield, H-Shield		
Minimum 1.4" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sopraboard		
Minimum 1/8" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck with OlyBond Adhesive Fastener at 1 gallon/square. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

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

Base Sheet: (Optional) One layer of Modified Sopra G, Sopra IV, Sopra VI, Soprabase, Soprabase S, Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS*, Sopralene 250 Sanded, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in COLPLY Adhesive, at 1.5 – 2.0 gallons / square.

*Requires torch-applied ply membrane.

Ply Sheet: One or two layers of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180*, Colphene Flam 180*, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Soprafix Base 622, Sopralene Flam 250*, Sopralene 250 SP, torch-applied.

Or

Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS*, Sopralene 250 Sanded, or one to three plies of Sopra IV or Sopra VI ply sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in COLPLY Adhesive, at 1.5 – 2.0 gallons / square.*Requires torch-applied cap membrane.

Membrane:	Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. Or Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in COLPLY Adhesive at 1.5 – 2.0 gallons / square. to sand surfaced ply membrane.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-255 psf. (using ENRGY 3) (See General Limitation #9.) -270 psf.(See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(23): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

Primer: (Use only if Vapor Barrier installed) Elastocol 500 or ASTM D41 at 0.75 gal./sq.

Vapor Barrier: (Optional) Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, torched-applied to primed concrete deck.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, Sopra-ISO s, ACFoam-III, Sopra-ISO+ s, EnergyGuard POLYSIO Insulation, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, H-Shield, Sopra-ISO r, M-Shield, H-Shield CG, Sopra-ISO+ r, Multi-Max FA-3, Sopra-ISO x		
Minimum 2” thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sopraboard		
Minimum 0.125” thick	**N/A**	**N/A**
SECUROCK Gypsum-Fiber Roof Board, DensDeck, DEXcell FA Glass Mat Roof Board		
Minimum 0.25” thick	**N/A**	**N/A**
DEXcell Cement Roof Board		
Minimum 7/16” thick	**N/A**	**N/A**

Note: All insulations shall be adhered with Duotack or Duotack Neo applied in continuous ribbons maximum spacing of 12” o.c. 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.

Base Sheet: Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Sopralene 180 Sanded 2.2, Colphene 180 Sanded, Sopralene 180 Sanded, Sopralene 250 Sanded, Elastophene PS*, Elastophene PS 3.0*, Sopralene 180 PS 2.2*, Colphene 180 PS* or Sopralene 180 PS* applied in hot asphalt at 25 lbs./sq.

Or

Elastophene Flam HS*, Elastophene Flam 2.2*, Elastophene Flam*, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene 250 SP, torch-applied.

*Requires torch-applied Ply or Cap.

Ply Sheet: (Optional)	Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Sopralene 180 Sanded 2.2, Colphene 180 Sanded, Sopralene 180 Sanded, Sopralene 250 Sanded, Elastophene PS*, Elastophene PS 3.0*, Sopralene 180 PS 2.2*, Colphene 180 PS* or Sopralene 180 PS* applied in hot asphalt at 25 lbs./sq. or Elastophene Flam HS*, Elastophene Flam 2.2*, Elastophene Flam*, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene 250 SP, torch-applied. *Requires torch-applied Ply or Cap.
Membrane:	Elastophene LS FR GR, Elastophene FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, or Sopralast 50 TV Alu Sanded, applied in hot asphalt at 25 lbs./sq. or Elastophene Flam LS FR GR, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-260 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(24): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Primer: (Use only if Vapor Barrier installed) Elastocol 500 or ASTM D41 at 0.75 gal./sq.

Vapor Barrier: (Optional) Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, torched-applied to primed concrete deck.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, Sopra-ISO s, ACFoam-III, Sopra-ISO+ s, EnergyGuard POLYSIO Insulation, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, H-Shield, Sopra-ISO r, M-Shield, H-Shield CG, Sopra-ISO+ r, Multi-Max FA-3, Sopra-ISO+ x		
Minimum 2" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

Note: All insulations shall be adhered with Duotack or Duotack Neo applied in continuous ribbons maximum spacing of 12" o.c. 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.

Base Sheet: Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Sopralene 180 Sanded 2.2, Colphene 180 Sanded, Sopralene 180 Sanded or Sopralene 250 Sanded, applied in COLPLY EF Adhesive at 1.5-2.0 gal./sq.

or

Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene 250 SP, torch-applied.

Ply Sheet: (Optional) Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Sopralene 180 Sanded 2.2, Colphene 180 Sanded, Sopralene 180 Sanded or Sopralene 250 Sanded, applied in COLPLY EF Adhesive at 1.5-2.0 gal./sq.

Membrane: Elastophene LS FR GR, Elastophene FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, or Sopralast 50 TV Alu Sanded, applied in COLPLY EF Adhesive at 1.5-2.0 gal./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:	-260 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(25): One or more layers of insulation adhered with approved adhesive onto vapor barrier adhered onto concrete deck.

All General and System Limitations apply.

Vapor Barrier: Elastophene Stick, Sopralene Stick or Colphene Stick self-adhered to concrete deck primed with Elastocol Stick Zero applied at a rate of 0.5 gal./sq.,

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
H-Shield, H-Shield CG, M-Shield, Sopra-ISO r, Sopra-ISO+ r, ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, Multi-Max FA-3, Ultra-Max, Sopra-ISO x, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, EnergyGuard POLYISO Insulation		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sopraboard		
Minimum 1/8" thick	**N/A**	**N/A**
DEXcell FA Glass Mat Roof Board, DensDeck, SECUROCK Gypsum-Fiber Roof Board		
Minimum 1/4" thick	**N/A**	**N/A**
DEXcell Cement Roof Board		
Minimum 7/16" thick	**N/A**	**N/A**

Note: All insulations shall be adhered to the vapor barrier with Duotack or Duotack Neo applied in ½" to ¾" wide ribbons spaced maximum 12" o.c. 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.

Primer: Top insulation layer primed with Elastocol Stick Zero applied at a rate of 0.5 gal./sq.

Base Sheet: One layer of Elastophene Stick, Sopralene Stick, Colphene Stick, Elastophene Flam Stick*, Sopralene Flam Stick* self-adhered.

*Requires torch-applied cap membrane.

Membrane:	Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in COLPLY Adhesive, COLPLY EF Adhesive at 1.5-2.5 gal./sq. to sand surfaced membrane. Or Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-270 psf. See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(26): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, Sopra-ISO s, ACFoam-III, Sopra-ISO+ s, EnergyGuard POLYISO Insulation, ENRGY 3 AGF, ENRGY 3 CGF, H-Shield CG, Sopra-ISO+ r		
Minimum 2" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sopraboard		
Minimum 0.125" thick	**N/A**	**N/A**
DEXcell FA Glass Mat Roof Board, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum 1/4" thick	**N/A**	**N/A**
DEXcell Cement Roof Board		
Minimum 7/16" thick	**N/A**	**N/A**

Note: All insulations shall be adhered with Duotack or Duotack Neo applied in continuous ribbons maximum spacing of 12" o.c. 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.

Base Sheet: Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Sopralene 180 Sanded 2.2, Colphene 180 Sanded, Sopralene 180 Sanded, Sopralene 250 Sanded, Elastophene PS*, Elastophene PS 3.0*, Sopralene 180 PS 2.2*, Colphene 180 PS* or Sopralene 180 PS* applied in hot asphalt at 25 lbs./sq.

Or

Elastophene Flam HS*, Elastophene Flam 2.2*, Elastophene Flam*, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene 250 SP, torch-applied.

*Requires torch-applied Ply or Cap.

Ply Sheet: (Optional)	Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Sopralene 180 Sanded 2.2, Colphene 180 Sanded, Sopralene 180 Sanded, Sopralene 250 Sanded, Elastophene PS*, Elastophene PS 3.0*, Sopralene 180 PS 2.2*, Colphene 180 PS* or Sopralene 180 PS* applied in hot asphalt at 25 lbs./sq. Or Elastophene Flam HS*, Elastophene Flam 2.2*, Elastophene Flam*, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene 250 SP, torch-applied. *Requires torch-applied Cap.
Membrane:	Elastophene LS FR GR, Elastophene FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, or Sopralast 50 TV Alu Sanded, applied in hot asphalt at 25 lbs./sq. Or Elastophene Flam LS FR GR, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-277.5 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(27): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam II, Sopra-ISO s, ACFoam III, Sopra-ISO+ s, EnergyGuard POLYISO Insulation, ENRGY 3 AGF, ENRGY 3 CGF, H-Shield CG, Sopra-ISO+ r		
Minimum 2" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

Note: All insulations shall be adhered with Duotack or Duotack Neo applied in continuous ribbons maximum spacing of 12" o.c. 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.

Base Sheet: Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Sopralene 180 Sanded 2.2, Colphene 180 Sanded, Sopralene 180 Sanded, Sopralene 250 Sanded, Elastophene PS*, Elastophene PS 3.0*, Sopralene 180 PS 2.2*, Colphene 180 PS* or Sopralene 180 PS* applied in hot asphalt at 25 lbs./sq.

Or

Elastophene Flam HS*, Elastophene Flam 2.2*, Elastophene Flam*, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene 250 SP, torch-applied.

*Requires torch-applied Ply or Cap.

Ply Sheet: (Optional) Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Sopralene 180 Sanded 2.2, Colphene 180 Sanded, Sopralene 180 Sanded, Sopralene 250 Sanded, Elastophene PS*, Elastophene PS 3.0*, Sopralene 180 PS 2.2*, Colphene 180 PS* or Sopralene 180 PS* applied in hot asphalt at 25 lbs./sq.

Or

Elastophene Flam HS*, Elastophene Flam 2.2*, Elastophene Flam*, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene 250 SP, torch-applied.

*Requires torch-applied Cap.

Membrane:	Elastophene LS FR GR, Elastophene FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, or Sopralast 50 TV Alu Sanded, applied in hot asphalt at 25 lbs./sq. or Elastophene Flam LS FR GR, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-285 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(28): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft2**
ACFoam II, Sopra-ISO s, ACFoam III, Sopra-ISO+ s, EnergyGuard POLYISO Insulation, ENRGY 3 AGF, ENRGY 3 CGF, H-Shield CG, Sopra-ISO+ r		
Minimum 2" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft2**
SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

Note: All insulations shall be adhered with Duotack or Duotack Neo applied in continuous ribbons maximum spacing of 12" o.c. 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.

Base Sheet:	Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Sopralene 180 Sanded 2.2, Colphene 180 Sanded, Sopralene 180 Sanded or Sopralene 250 Sanded, applied in COLPLY EF Adhesive at 1.5-2.0 gal./sq. Or Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene 250 SP, torch-applied.
Ply Sheet: (Optional)	Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Sopralene 180 Sanded 2.2, Colphene 180 Sanded, Sopralene 180 Sanded or Sopralene 250 Sanded, applied in COLPLY EF Adhesive at 1.5-2.0 gal./sq.
Membrane:	Elastophene LS FR GR, Elastophene FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, or Sopralast 50 TV ALU Sanded, applied in COLPLY EF Adhesive at 1.5-2.0 gal./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:	-285 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank
System Type A(29): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

Vapor Barrier: (Optional) Two layers of Elastophene Stick, Sopralene Stick, Colphene Stick, self-adhered to concrete deck primed with Elastocol Stick or Elastocol Stick Zero at 0.5 gal/sq.
Or
One layer of Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 250 SP, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5 or Colphene 180 SP 3.5, torch-applied to a layer of Colvent Flam 180 TG, torched-applied over deck primed with ASTM D41 primer.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
H-Shield, H-Shield CG, M-Shield, Sopra-ISO r, Sopra-ISO+ r, ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, Multi-Max FA-3, Ultra-Max, Sopra-ISO x, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, EnergyGuard POLYISO Insulation		
Minimum 1.5" thick (flat or tapered)	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK Gypsum-Fiber Roof Board		
Minimum ¼" thick	**N/A**	**N/A**

Note: Top layer of insulation shall be adhered with Duotack or Duotack Neo applied in ½" to ¾" wide ribbons spaced 12" o.c. 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: One layer of Modified Sopra G, Soprabase, Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS* or Sopralene 250 Sanded adhered in hot asphalt at 25 lbs./sq. or applied in COLPLY EF Adhesive, COLPLY Adhesive, applied at a rate of 1.5 – 2 gal./sq.

Or

One layer of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Colvent TG, Colvent 180 TG, Colvent Flam 180 TG*, torch-applied to substrate primed with Elastocol 500.

Or

Base Sheet: (Continued)	One layer of Elastophene Stick, Sopralene Stick, Colphene Stick, Elastophene Flam Stick* or Sopralene Flam Stick*, self-adhered to substrate primed with Elastocol Stick or Elastocol Stick Zero. *Requires torch-applied ply or cap membrane
Ply Sheet: (Optional)	One layer of Modified Sopra G, Soprabase, Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS* or Sopralene 250 Sanded adhered in hot asphalt at 25 lbs./sq. or applied in COLPLY EF Adhesive, COLPLY Adhesive, applied at a rate of 1.5 – 2 gal./sq. Or One layer of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Colvent TG, Colvent 180 TG, Colvent Flam 180 TG*, torch-applied. Or One layer of Elastophene Stick, Sopralene Stick, Colphene Stick, Elastophene Flam Stick* or Sopralene Flam Stick*, self-adhered. *Requires torch-applied ply or cap membrane
Membrane:	Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. Or Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in COLPLY Adhesive, COLPLY EF Adhesive at 1.5-2.5 gal./sq. to sand surfaced 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:	-270.0 psf. With Self-Adhered Vapor Barrier (See General Limitation #9) -315.0 psf. With Torch-Applied Vapor Barrier (See General Limitation #9) -382.5 psf. (See General Limitation #9)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(30): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

Note: All insulations shall be adhered with Duotack or Duotack Neo applied in continuous ribbons maximum spacing of 12" o.c. 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.

Base Sheet: Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Sopralene 180 Sanded 2.2, Colphene 180 Sanded, Sopralene 180 Sanded or Sopralene 250 Sanded, applied in COLPLY EF Adhesive at 1.5-2.0 gal./sq.

Or

Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene 250 SP, torch-applied.

Ply Sheet: (Optional) Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Sopralene 180 Sanded 2.2, Colphene 180 Sanded, Sopralene 180 Sanded or Sopralene 250 Sanded, applied in COLPLY EF Adhesive at 1.5-2.0 gal./sq.

Membrane: Elastophene LS FR GR, Elastophene FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, or Sopralast 50 TV ALU Sanded, applied in COLPLY EF Adhesive at 1.5-2.0 gal./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: -337.5 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(31): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

Vapor Barrier: (Optional) One layer of Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, torched-applied to concrete deck primed with asphaltic primer at 0.75 gal/sq.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
H-Shield, H-Shield CG, M-Shield, Sopra-ISO r, Sopra-ISO+ r, ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, Multi-Max FA-3, Ultra-Max, Sopra-ISO x, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, EnergyGuard POLYISO Insulation		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sopraboard		
Minimum 1/8" thick	**N/A**	**N/A**
DEXcell FA Glass Mat Roof Board, DensDeck, SECUROCK Gypsum-Fiber Roof Board		
Minimum 1/4" thick	**N/A**	**N/A**
DEXcell Cement Roof Board		
Minimum 7/16" thick	**N/A**	**N/A**

Note: All insulations shall be adhered to the vapor barrier or deck with Duotack or Duotack Neo applied in ½" to ¾" wide ribbons spaced 12" o.c. 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.

Base Sheet: One or two plies of Modified Sopra G, Soprabase, Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded or Sopralene 250 Sanded, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-25 lbs./sq. or in COLPLY Adhesive, COLPLY EF Adhesive at 1.5-2.5 gal./sq.

Or

One layer of Elastophene Stick, Sopralene Stick, Colphene Stick, self-adhered.

Ply Sheet: (Optional)	One layer of Modified Sopra G, Soprabase, Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded or Sopralene 250 Sanded adhered in hot asphalt at 25 lbs./sq. or applied in COLPLY EF Adhesive, COLPLY Adhesive at a rate of 1.5 – 2 gal./sq. Or One layer of Elastophene Stick, Sopralene Stick, Colphene Stick, self-adhered.
Membrane:	Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in COLPLY Adhesive, COLPLY EF Adhesive at 1.5-2.5 gal./sq. to sand surfaced 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:	-337.5 psf. If ply sheets are used (See General Limitation #9.) -382.5 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(32): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

Primer: Substrate primed with approved ASTM D41 primer.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam II, Sopra-ISO s, ENRGY 3, H-Shield, Sopra-ISO r, M-Shield or Multi-Max FA-3, Sopra-ISO x		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sopraboard		
Minimum 0.125" thick	**N/A**	**N/A**

Note: All insulations shall be adhered with hot asphalt at 25 lbs./sq. 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.

Base Sheet: Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Sopralene 180 Sanded 2.2, Colphene 180 Sanded, Sopralene 180 Sanded, Sopralene 250 Sanded, Elastophene PS*, Elastophene PS 3.0*, Sopralene 180 PS 2.2*, Colphene 180 PS* or Sopralene 180 PS*, applied in hot asphalt at 25 lbs./sq.

*Requires torch-applied Ply or Cap.

Ply Sheet: (Optional) Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Sopralene 180 Sanded 2.2, Colphene 180 Sanded, Sopralene 180 Sanded, Sopralene 250 Sanded, Elastophene PS*, Elastophene PS 3.0*, Sopralene 180 PS 2.2*, Colphene 180 PS* or Sopralene 180 PS* applied in hot asphalt at 25 lbs./sq.

or

Elastophene Flam HS*, Elastophene Flam 2.2*, Elastophene Flam*, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene 250 SP, torch-applied.

*Requires torch-applied Cap.

Membrane:	Elastophene LS FR GR, Elastophene FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, or Sopralast 50 TV ALU Sanded, applied in hot asphalt at 25 lbs./sq. Or Elastophene Flam LS FR GR, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam Antirock, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, or Sopralast 50 TV ALU, torch-applied.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-365 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(33): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply.

Vapor Barrier: One or two plies of Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, torched applied to ASTM D 41 primed concrete deck.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ACFoam-II, Sopra-ISO s, H-Shield, M-Shield, Sopra-ISO r, ENRGY 3, Multi-Max FA-3, Sopra-ISO x (flat or tapered)		
Minimum 2" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

Note: All insulation shall be adhered in Duotack, Duotack Neo, Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive, Millennium PG-1 Low Viscosity Insulation Adhesive or OlyBond 500 applied in ½" to ¾" wide ribbons spaced 3" 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 the final membrane substrate.

Base Sheet: Colvent Flam 180 TG, Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HS, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, torch-applied.

Ply Sheet (Optional): Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HS, Sopralene Flam 180, Colphene Flam 180, Flam 250, torch-applied.

Membrane: Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torched-applied.

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

Maximum Design Pressure: -375 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(34): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

Primer: Substrate primed with approved ASTM D41 primer.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam II, Sopra-ISO s, ENRGY 3, H-Shield, Sopra-ISO r, M-Shield, Multi-Max FA-3, Sopra-ISO x		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

Note: All insulations shall be adhered with hot asphalt at 25 lbs./sq. 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.

Base Sheet: Elastophene Flam HS*, Elastophene Flam 2.2*, Elastophene Flam*, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene 250 SP, torch-applied.

*Requires torch-applied Ply or Cap.

Ply Sheet: (Optional) Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Sopralene 180 Sanded 2.2, Colphene 180 Sanded, Sopralene 180 Sanded, Sopralene 250 Sanded, Elastophene PS*, Elastophene PS 3.0*, Sopralene 180 PS 2.2*, Colphene 180 PS* or Sopralene 180 PS* applied in hot asphalt at 25 lbs./sq.

or

Elastophene Flam HS*, Elastophene Flam 2.2*, Elastophene Flam*, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene 250 SP, torch-applied.

*Requires torch-applied Cap.

Membrane:	Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, or Sopralast 50 TV Alu Sanded, applied in hot asphalt at 25 lbs./sq. or Elastophene Flam LS FR GR, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-300 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(35): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

Vapor Barrier (Optional) One layer of Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, torch-applied over concrete deck primed with asphaltic primer at 0.75 gal/sq.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
H-Shield, M-Shield, Sopra-ISO r, Multi-Max FA-3, Ultra-Max, Sopra-ISO x, ENRGY 3, H-Shield CG, Sopra-ISO+ r, M-Shield CG, ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, ENRGY 3 AGF, ENRGY 3 CGF, EnergyGuard Polyiso Insulation		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sopraboard		
Minimum 1/8" thick	**N/A**	**N/A**
DEXcell FA Glass Mat Roof Board, DensDeck, SECUROCK Gypsum-Fiber Roof Board		
Minimum 1/4" thick	**N/A**	**N/A**
DEXcell Cement Roof Board		
Minimum 7/16" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the vapor barrier or deck with Duotack or Duotack Neo applied in ½" to ¾" wide ribbons spaced 12" o.c. 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.

Base Sheet: One layer of Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HS, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, Colvent Flam 180 TG, torch-applied.

Or

One layer of Elastophene Flam Stick, Sopralene Flam Stick, self-adhered.

Ply Sheet: (Optional) One layer of Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HS, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, Colvent Flam 180 TG, torch-applied.

Or

One layer of Elastophene Flam Stick, Sopralene Flam Stick, self-adhered.

Membrane:	Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-382.5 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(36): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

Primer: Substrate primed with approved ASTM D41 primer.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, Sopra-ISO s, ENRGY 3, H-Shield, Sopra-ISO r, M-Shield, Multi-Max FA-3, Sopra-ISO x		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

Note: All insulations shall be adhered with hot asphalt at 25 lbs./sq. 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.

Base Sheet: Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Sopralene 180 Sanded 2.2, Colphene 180 Sanded, Sopralene 180 Sanded, Sopralene 250 Sanded, Elastophene PS*, Elastophene PS 3.0*, Sopralene 180 PS 2.2*, Colphene 180 PS* or Sopralene 180 PS*, applied in hot asphalt at 25 lbs./sq.

*Requires torch-applied Ply or Cap.

Ply Sheet: (Optional) Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Sopralene 180 Sanded 2.2, Colphene 180 Sanded, Sopralene 180 Sanded, Sopralene 250 Sanded, Elastophene PS*, Elastophene PS 3.0*, Sopralene 180 PS 2.2*, Colphene 180 PS* or Sopralene 180 PS* applied in hot asphalt at 25 lbs./sq.

Or

Elastophene Flam HS*, Elastophene Flam 2.2*, Elastophene Flam*, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene 250 SP, torch-applied.

*Requires torch-applied Cap.

Membrane:	Elastophene LS FR GR, Elastophene FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, or Sopralast 50 TV ALU Sanded, applied in hot asphalt at 25 lbs./sq. Or Elastophene Flam LS FR GR, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-300 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(37): 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.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, ENRGY 3, H-Shield, M-Shield, Sopra-ISO r		
Minimum 1.4" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Fesco Board		
Minimum ¾" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered to the primed deck in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. 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 layers of Sopra G, Modified Sopra G, Sopra-IV, Sopra-VI, Soprabase, Soprabase S adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Base Sheet: (Optional) **(Required if no base sheet used)** One or more layers of Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Elastophene PS*, Elastophene PS 3.0*, Colphene 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 torch-applied cap membrane.

Membrane: Elastophene Flam FR GR, Elastophene Flam FR+ GR, Elastophene Flam LS FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied.

Membrane: (Continued)	Or Elastophene FR GR, Elastophene FR+ GR, Elastophene LS FR GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded adhered in a 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:	-420 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(38): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

Primer: Substrate primed with approved ASTM D41 primer.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, Sopra-ISO s, ENRGY 3, H-Shield, Sopra-ISO r, M-Shield, Multi-Max FA-3, Sopra-ISO x		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck		
Minimum 0.25" thick	**N/A**	**N/A**

Note: All insulations shall be adhered with hot asphalt at 25 lbs./sq. 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.

Base Sheet: Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Sopralene 180 Sanded 2.2, Colphene 180 Sanded, Sopralene 180 Sanded, Sopralene 250 Sanded, Elastophene PS*, Elastophene PS 3.0*, Sopralene 180 PS 2.2*, Colphene 180 PS* or Sopralene 180 PS*, applied in hot asphalt at 25 lbs./sq.

*Requires torch-applied Ply or Cap.

Ply Sheet: (Optional) Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Sopralene 180 Sanded 2.2, Colphene 180 Sanded, Sopralene 180 Sanded, Sopralene 250 Sanded, Elastophene PS*, Elastophene PS 3.0*, Sopralene 180 PS 2.2*, Colphene 180 PS* or Sopralene 180 PS* applied in hot asphalt at 25 lbs./sq.

Or

Elastophene Flam HS*, Elastophene Flam 2.2*, Elastophene Flam*, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene 250 SP, torch-applied.

*Requires torch-applied Cap.

Membrane:	Elastophene LS FR GR, Elastophene FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, or Sopralast 50 TV ALU Sanded, applied in hot asphalt at 25 lbs./sq. Or Elastophene Flam LS FR GR, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam Antirock, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, or Sopralast 50 TV ALU, torch-applied.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-452.5 psf. (See General Limitation #9.)

Membrane Type:	SBS
Deck Type 3I:	Concrete Decks, Insulated
Deck Description:	2500 psi structural concrete or concrete plank
System Type A(39):	One or more layers of insulation adhered with approved adhesive
Substrate Preparation:	All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants.

All General and System Limitations apply.

Primer:	Substrate primed with approved ASTM D41 primer
Vapor Barrier (Optional):	One layer of Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, Colvent TG, Colvent 180 TG, torch-applied.
Leveling Agent (Optional):	Poly Patch

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, H-Shield, M-Shield, Sopra-ISO r		
Minimum 2" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sopraboard		
Minimum 1/8" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of vapor barrier or insulation. All insulation shall be adhered to the vapor barrier or primed deck in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. 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.

Primer: (Optional)	Elastocol 500, Elastocol Stick, Elastocol Stick Zero applied at a rate of 1 gal./sq., to top surface of any insulation, base or ply sheet prior to application of next layer
Base Sheet:	One layer of Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HS, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, Colvent Flam 180 TG, torch-applied.

Ply Sheet: (Optional)	One or more layers of Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HS, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, torch-applied.
Membrane:	Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-375.0 psf. (See General Limitation #9.)

Membrane Type:	SBS
Deck Type 3I:	Concrete Decks, Insulated
Deck Description:	2500 psi structural concrete or concrete plank
System Type A(40):	One or more layers of insulation adhered with approved adhesive
Substrate Preparation:	All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants.

All General and System Limitations apply.

Primer:	Substrate primed with approved ASTM D41 primer.
Vapor Barrier (Optional):	One layer of Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, Colvent TG, Colvent 180 TG, torch-applied.
Leveling Agent (Optional):	Vinyl Patch

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, H-Shield. M-Shield, Sopra-ISO r		
Minimum 2” thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sopraboard		
Minimum 1/8” thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of vapor barrier or insulation. All insulation shall be adhered to the vapor barrier or primed deck in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. 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.

Primer: (Optional)	Elastocol 500, Elastocol Stick, Elastocol Stick Zero applied at a rate of 1 gal./sq., to top surface of any insulation, base or ply sheet prior to application of next layer.
Base Sheet:	One layer of Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HS, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, Colvent Flam 180 TG, torch-applied.
Ply Sheet: (Optional)	One or more layers of Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HS, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, torch-applied.
Membrane:	Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied.

Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-427.5 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

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

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, ACFoam-III, Sopra-ISO s, Sopra-ISO+ s, ENRGY 3, Multi-Max FA-3, Sopra-ISO x, H-Shield, M-Shield, Sopra-ISO r (flat or tapered)		
Minimum 1.5" thick	**N/A**	**N/A**
Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Structodek High Density Fiberboard Roof Insulation		
Minimum ½" thick	**N/A**	**N/A**
Fesco Board		
Minimum ¾" thick	**N/A**	**N/A**
DensDeck, SECUROCK Gypsum-Fiber Roof Board		
Minimum ¼" thick	**N/A**	**N/A**
Sopraboard		
Minimum 1/8" thick	**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. Refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One layer of Soprafix Base 612, Soprafix Base 614, Soprafix Base 613, Soprafix Base 611*, fastened to the deck as described below:

*Not for use only when using 2 in. diameter plates.

Fastening: Attach base sheet using Dekfast DF-#14-PH3 fasteners with Dekfast PLT-R-2-4B or Dekfast Galvalume Steel Round 2-3/8" 20 ga. Barbed Plates or Soprema #14 fasteners with Soprafix 2" SB Stress Plates or Soprafix 2-3/8" SB Stress Plates or Trufast #15 EHD Fasteners with Trufast 2" Barbed Metal Seam Plates or Trufast 2.4" Scoop Seam Plates or Soprema #15 HD Fasteners with Soprema 2" Seam Plates or Soprema 2.4" Seam Plates 12" o.c. in a 5" torch-applied lap.

Ply Sheet: (Optional) One or more layers of Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HS, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, Soprafix Base 613, Soprafix Base 612, or Soprafix Base 614, torch-applied.

Membrane:	Elastophene Flam FR GR, Elastophene Flam FR+ GR, Elastophene Flam LS FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Colphene Flam 180 FR GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-60 psf. (See General Limitation #7.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type D(2): Membrane fastened over preliminarily secured insulation.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Celcore MF Cellular Concrete, Siplast Lightweight Insulating Concrete, Elastizell Lightweight Insulating Concrete, Concrecel Lightweight Insulating Concrete, Mearlcrete Lightweight Insulating Concrete		
Minimum 2.0" thick, Minimum 300 psi.	**N/A**	**N/A**

Note: Load capacity of the structural substrate must be verified for the additional load of the LWC. The LWC must be properly vented.

Middle Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, Sopra-ISO s, ISO 95+ GL, Ultra-Max, H-Shield, M-Shield, Sopra-ISO r, TopRock DD, TopRock DD Plus, SopraRock DD, SopraRock DD Plus		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sopraboard		
Minimum $^1/_8$" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum ¼" thick	**N/A**	**N/A**

Note: Top layer shall have preliminary attachment, prior to the installation of the base sheet. Insulation shall be limited to maximum 1" thickness. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Base Sheet: One layer of Soprafix Base 611, Soprafix Base 622, Soprafix Base 612, Soprafix Base 613, or Soprafix Base 614 fastened to the deck as described below:

Fastening #1: Attach base sheet using Trufast #15 EHD Fasteners with Trufast 2" Barbed Metal Seam Plates or Soprema #15 HD Fasteners with Soprema 2" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 12" o.c. in a 4" wide torch-applied base sheet side laps.
(Meets Maximum Design Pressure of –67.5 psf; See General Limitation #7.)

Fastening #2: Attach base sheet using Trufast #15 EHD Fasteners with Trufast 2.4" Scoop Seam Plates or Soprema #15 HD Fasteners with Soprema 2.4" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 12" o.c. in a 4" wide torch-applied base sheet side laps.
(Meets Maximum Design Pressure of –75 psf; See General Limitation #7.)

Ply Sheet: (Optional)	One or more plies of Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HS, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, Soprafix Base 613, Soprafix Base 612, or Soprafix Base 614, torch-applied.
Membrane:	Elastophene Flam LS FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. The 3" wide side laps of the cap sheets are torch-applied.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	See Fastening Requirements above.

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type D(3): Membrane fastened over preliminarily secured insulation.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Celcore MF Cellular Concrete, Siplast Lightweight Insulating Concrete, Elastizell Lightweight Insulating Concrete, Concrecel Lightweight Insulating Concrete, Mearlcrete Lightweight Insulating Concrete		
Minimum 2.0" thick, Minimum 300 psi.	**N/A**	**N/A**

Note: Load capacity of the structural substrate must be verified for the additional load of the LWC. The LWC must be properly vented.

Middle Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, Sopra-ISO s, ISO 95+ GL, Ultra-Max, H-Shield, M-Shield, Sopra-ISO r, Sopra-ISO x, TopRock DD, TopRock DD Plus, SopraRock DD, SopraRock DD Plus		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sopraboard		
Minimum 0.125" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

Note: Top layer shall have preliminary attachment, prior to the installation of the base sheet. Insulation shall be limited to maximum 1" thickness. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Base Sheet: One layer of Soprafix Base 611, Soprafix Base 622, Soprafix Base 612, Soprafix Base 613, or Soprafix Base 614 fastened to the deck as described below:

Fastening #1: Attach base sheet using Trufast #14 HD Fasteners with Trufast 2" Barbed Metal Seam Plates or Soprema #14 MP Fasteners with Soprema 2" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 12" o.c. and centered inside the 4" wide torch-applied base sheet side laps.
(Meets Maximum Design Pressure of -67.5 psf; See General Limitation #7.)

Fastening #2: Attach base sheet using Trufast #14 HD Fasteners with Trufast 2.4" Scoop Seam Plates or Soprema #14 MP Fasteners with Soprema 2.4" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 12" o.c. and centered inside the 4" wide torch-applied base sheet side laps.
(Meets Maximum Design Pressure of -75 psf; See General Limitation #7.)

Fastening #3:	Attach base sheet using Trufast #15 EHD Fasteners with Trufast 2" Barbed Metal Seam Plates or Soprema #15 HD Fasteners with Soprema 2" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 6" o.c. in a 4" wide torch-applied base sheet side laps. ***(Meets Maximum Design Pressure of -120 psf; See General Limitation #7.)***
Fastening #4:	Attach base sheet using Trufast #15 EHD Fasteners with Trufast 2.4" Scoop Seam Plates or Soprema #15 HD Fasteners with Soprema 2.4" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 6" o.c. in a 4" wide torch-applied base sheet side laps. ***(Meets Maximum Design Pressure of -142.5 psf; See General Limitation #7.)***
Ply Sheet: (Optional)	One or more plies of Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HS, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, Soprafix Base 613, Soprafix Base 612, or Soprafix Base 614, torch-applied.
Membrane:	Elastophene Flam LS FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. The 3" wide side laps of the cap sheets are torch-applied.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	See Fastening Requirements above.

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi concrete or concrete plank

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.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ACFoam-II, Sopra-ISO s, H-Shield, M-Shield, Sopra-ISO r (flat or tapered)		
Minimum 1.5" thick	**N/A**	**N/A**
DensDeck, SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**
Sopraboard		
Minimum 1/8" thick	**N/A**	**N/A**
Fesco Board		
Minimum 0.75" thick	**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. Refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One layer of Soprafix Base 622, Soprafix Base 612, Soprafix Base 613, Soprafix Base 614 or Soprafix Base 641, fastened to the deck as described below:

Fastening: Attach base sheet using Trufast Recessed Batten Bar or Soprafix MBB-R with Trufast #14 HD Fastener spaced 12" o.c. in the minimum 5" wide lap.

Ply Sheet: (Optional) One or more layers of Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HS, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, Soprafix Base 613, Soprafix Base 612, or Soprafix Base 614, torch-applied.

Membrane: Elastophene Flam FR GR, Elastophene Flam FR+ GR, Elastophene Flam LS FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied.

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

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

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type D(5): Membrane fastened over preliminarily secured insulation.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Celcore MF Cellular Concrete, Siplast Lightweight Insulating Concrete, Elastizell Lightweight Insulating Concrete, Concrecel Lightweight Insulating Concrete, Mearlcrete Lightweight Insulating Concrete		
Minimum 2.0" thick, Minimum 300 psi.	**N/A**	**N/A**

Note: Load capacity of the structural substrate must be verified for the additional load of the LWC. The LWC must be properly vented.

Middle Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ACFoam-II, Sopra-ISO s, ISO 95+ GL, Ultra-Max, H-Shield, M-Shield, Sopra-ISO r, Sopra-ISO x, TopRock DD, TopRock DD Plus, SopraRock DD, SopraRock DD Plus		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Sopraboard		
Minimum 1/8" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum ¼" thick	**N/A**	**N/A**

Note: Top layer shall have preliminary attachment, prior to the installation of the base sheet. Insulation shall be limited to maximum 1" thickness. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Base Sheet: One layer of Soprafix Base 614 fastened to the deck as described below:

Fastening#1: Attach base sheet using Trufast #15 EHD Fasteners and Soprema #15 HD Fasteners with Trufast 2.4" Scoop Seam Plates and Soprema 2.4" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 12" o.c. and centered inside the 4" wide torch-applied base sheet side laps.
(Meets Maximum Design Pressure of -97.5 psf; See General Limitation #7.)

Fastening #2: Attach base sheet using Trufast #15 EHD Fasteners and Soprema #15 HD Fasteners with Trufast 2.4" Scoop Seam Plates and Soprema 2.4" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 6" o.c. and centered inside the 4" wide torch-applied base sheet side laps.
(Meets Maximum Design Pressure of -172.5 psf; See General Limitation #7.)

Ply Sheet: (Optional)	One or more plies of Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HS, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, Soprafix Base 613, Soprafix Base 612, or Soprafix Base 614, torch-applied.
Membrane:	Elastophene Flam LS FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. The 3" wide side laps of the cap sheets are torch-applied.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	See Fastening Requirements above.

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type D(6): Base Sheet mechanically attached over preliminarily secured insulation

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Celcore MF Cellular Concrete, Siplast Lightweight Insulating Concrete, Elastizell Lightweight Insulating Concrete, Concrecel Lightweight Insulating Concrete, Mearlcrete Lightweight Insulating Concrete		
Minimum 2.0" thick, Minimum 300 psi.	**N/A**	**N/A**

Note: Load capacity of the structural substrate must be verified for the additional load of the LWC. The LWC must be properly vented.

Middle Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ACFoam-II, Sopra-ISO s, ISO 95+ GL, Ultra-Max, H-Shield, M-Shield, Sopra-ISO r, Sopra-ISO x, TopRock DD, TopRock DD Plus, SopraRock DD, SopraRock DD Plus		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Sopraboard		
Minimum 1/8" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum ¼" thick	**N/A**	**N/A**

Note: Top layer shall have preliminary attachment, prior to the installation of the base sheet. Insulation shall be limited to maximum 1" thickness. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Base Sheet: One layer of Soprafix Base 611, Soprafix Base 622, Soprafix Base 612, Soprafix Base 613, or Soprafix Base 614 fastened to the deck as described below:

Fastening: Attach base sheet using Trufast #15 EHD Fasteners with Trufast 2" Barbed Metal Seam Plates or Trufast 2.4" Scoop Seam Plates or Soprema #15 HD Fasteners with Soprema 2" Seam Plates or Soprema 2.4" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 6" o.c. in a 4" wide torch-applied base sheet side laps.

Ply Sheet: (Optional) One or more plies of Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HS, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, Soprafix Base 613, Soprafix Base 612, or Soprafix Base 614, torch-applied

Membrane:	Elastophene Flam LS FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. The 3" wide side laps of the cap sheets are torch-applied.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-112.5 psf; (See General Limitation #7.)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type D(7): Membrane fastened over preliminarily secured insulation.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Celcore MF Cellular Concrete, Siplast Lightweight Insulating Concrete, Elastizell Lightweight Insulating Concrete, Concrecel Lightweight Insulating Concrete, Mearlcrete Lightweight Insulating Concrete		
Minimum 2.0" thick, Minimum 300 psi.	**N/A**	**N/A**

Note: Load capacity of the structural substrate must be verified for the additional load of the LWC. The LWC must be properly vented.

Middle Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, Sopra-ISO s, ISO 95+ GL, Ultra-Max, H-Shield, M-Shield, Sopra-ISO r, Sopra-ISO x, TopRock DD, TopRock DD Plus, SopraRock DD, SopraRock DD Plus		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sopraboard		
Minimum 0.125" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

Note: Top layer shall have preliminary attachment, prior to the installation of the base sheet. Insulation shall be limited to maximum 1" thickness. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Base Sheet: One layer of Soprafix Base 611, Soprafix Base 622, Soprafix Base 612, Soprafix Base 613, or Soprafix Base 614 fastened to the deck as described below:

Fastening #1: Attach base sheet using Trufast #14 HD Fasteners with Trufast 2" Barbed Metal Seam Plates or Soprema #14 MP Fasteners with Soprema 2" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 6" o.c. and centered inside the 4" wide torch-applied base sheet side laps.
(Meets Maximum Design Pressure of -120 psf; See General Limitation #7.)

Fastening #2: Attach base sheet using Trufast #14 HD Fasteners with Trufast 2.4" Scoop Seam Plates or Soprema #14 MP Fasteners with Soprema 2.4" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 6" o.c. and centered inside the 4" wide torch-applied base sheet side laps.
(Meets Maximum Design Pressure of -135 psf; See General Limitation #7.)

Ply Sheet: (Optional)	One or more plies of Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HS, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, Soprafix Base 613, Soprafix Base 612, or Soprafix Base 614, torch-applied.
Membrane:	Elastophene Flam LS FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. The 3" wide side laps of the cap sheets are torch-applied.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	See Fastening Requirements above.

Membrane Type: SBS

Deck Type 3: Concrete Decks, Non-insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(1): Base sheet torch-applied to primed deck.

All General and System Limitations apply.

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

Base Sheet:	One ply of Colvent TG, Colvent 180 TG, Colvent Flam 180 TG*, torch-applied. *Requires torch-applied ply or cap membrane.
Ply Sheet: (Optional)	One or more layers of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180*, Colphene Flam 180*, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Soprafix Base 622, Sopralene Flam 250* or Sopralene 250 SP, torch-applied. Or One or more layers of Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS*, Sopralene 250 Sanded, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base membrane. *Requires torch-applied cap membrane.
Membrane:	Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. Or Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded 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:	-187.5 psf. (See General Limitation #9.)

Membrane Type:	SBS
Deck Type 3:	Concrete Decks, Non-Insulated
Deck Description:	2500 psi structural concrete or concrete plank
System Type F(2):	Base sheet adhered to primed substrate.

All General and System Limitations apply.

Primer: (Optional)	Elastocol 500, Elastocol Stick, Elastocol Stick Zero 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: (Optional)	One layer of Modified Sopra G, Soprabase, Soprabase S, Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS*, Sopralene 250 Sanded, adhered in COLPLY Adhesive, at 1.5 – 2.0 gallons/square or in hot asphalt at 25 lbs./sq. Requires torch-applied ply or cap membrane.
Ply Sheet:	Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Soprabase, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS*, Sopralene 250 Sanded, adhered in COLPLY Adhesive, at 1.5 – 2.0 gallons/square or in hot asphalt at 25 lbs./sq. Or Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180*, Colphene Flam 180*, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Soprafix Base 622, Sopralene Flam 250*, Sopralene 250 SP, torch-applied. *Requires torch-applied cap membrane.
Membrane:	Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded adhered in COLPLY Adhesive, at 1.5 – 2.0 gallons/square or in hot asphalt at 25 lbs./sq. to sand surfaced ply membrane Or Elastophene Flam FR GR, Elastophene Flam FR+ GR, Elastophene Flam LS FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-187.5 psf. (See General Limitation #9.)

Membrane Type:	SBS
Deck Type 3:	Concrete Decks, Non-Insulated
Deck Description:	2500 psi structural concrete or concrete plank
System Type F(3):	Membranes adhered to primed substrate.

All General and System Limitations apply.

Substrate Preparation:	All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants.
Primer:	Elastocol 500, Elastocol Stick, Elastocol Stick Zero at an application rate of 100 ft^2/gallon.
Base Sheet:	One layer of Sopralene Stick or Colphene Stick, self-adhered. Or One layer of Colvent TG or Colvent 180 TG, torch-applied.
Ply Sheet: (Optional)	One or more layers of Colphene Sanded, Elastophene Sanded 2.2, Elastophene Sanded 3.0, Elastophene HS, Colphene 180 Sanded, Soprabase, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded, Sopralene 250 Sanded, adhered in hot asphalt at 25 lbs./sq. to sand surfaced base membrane.
Primer: (Optional)	Elastocol 500, Elastocol Stick, Elastocol Stick Zero applied at a rate of 1 gal./sq. to top surface of any base or ply sheet prior to application of next layer
Membrane:	(With torch-applied base sheets) Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded adhered in hot asphalt at 25 lbs./sq. to sand surfaced base or ply membrane. Or (With self-adhered base sheets) Elastophene LS FR GR, Sopralast 50 TV Alu Sanded 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:	-242.5 psf. With Self-Adhered Base Sheet (See General Limitation #9.) -267.5 psf. With Torch-Applied Base Sheet (See General Limitation #9.)

Membrane Type:	SBS
Deck Type 3:	Concrete Decks, Non-Insulated
Deck Description:	2500 psi structural concrete or concrete plank
System Type F(4):	Membranes adhered to primed substrate.

All General and System Limitations apply.

Substrate Preparation:	All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants.
Primer:	Elastocol 500, Elastocol Stick, Elastocol Stick Zero at an application rate of 100 ft^2/gallon.
Base Sheet:	One layer of Elastophene Flam Stick or Sopralene Flam Stick, self-adhered Or One layer of Colvent Flam 180 TG, torch-applied.
Ply Sheet: (Optional)	One or more layers of Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HS, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, torch-applied.
Primer: (Optional)	Elastocol 500, Elastocol Stick, Elastocol Stick Zero applied at a rate of 1 gal./sq. to top surface of any base or ply sheet prior to application of next layer
Membrane:	Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-272.5 psf. With Self-Adhered Base Sheet (See General Limitation #9.) -295 psf. With Torch-Applied Base Sheet (See General Limitation #9.)

Membrane Type:	SBS
Deck Type 3I:	Concrete Decks, Non-Insulated
Deck Description:	2500 psi structural concrete or concrete plank
System Type F(5):	Non-Insulated, Roof cover to concrete
All General and System Limitations apply.	
Primer:	ASTM D41 or Elastocol 500 primer applied at a rate of 0.75 gal./sq.
Base Sheet:	Elastophene Flam HS, Elastophene Flam 2.2, Elastophene Flam, Sopralene Flam 180, Colphene Flam 180 or Sopralene Flam 250, torch-applied.
Ply Sheet: (Optional)	Elastophene Flam HS, Elastophene Flam 2.2, Elastophene Flam, Sopralene Flam 180, Colphene Flam 180 or Sopralene Flam 250, torch-applied.
Membrane:	Elastophene Flam LS FR GR, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied.
Surfacing:	Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
Maximum Design Pressure:	-367.5 psf. (See General Limitation #9.)

CONCRETE DECK SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each 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 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE