



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

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

NOTICE OF ACCEPTANCE (NOA)

**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 by the BCCO and accepted by the Building Code and Product Review Committee 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 BCCO (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. BCCO reserves the right to revoke this acceptance, if it is determined by BCCO 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 and the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Soprema Modified Bitumen Roofing Systems Over Recover Decks

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

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

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

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

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

This NOA revises NOA No. 07-1217.07 and consists of pages 1 through 82.
The submitted documentation was reviewed by Jorge L. Acebo.



**NOA No.: 09-0402.17
Expiration Date: 03/01/11
Approval Date: 06/10/09
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ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Modified Bitumen
Material: SBS
Deck Type: Recover
Maximum Design Pressure See Specific Deck Types

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|------------------|----------------------|------------------------------|---|
| Sopra-G | 39" x 108' (3.5 sq.) | ASTM D 4601 | Fiberglass reinforced oxidized asphalt base sheet for bonding or mechanically attaching to substrate. |
| Modified Sopra-G | 39" x 108' (3.5 sq.) | ASTM D 4601 | Fiberglass reinforced modified asphalt base sheet for bonding or mechanically attaching to substrate. |
| Sopraglass M | 39" x 66' (2 sq.) | ASTM D 5147 ASTM D 6163 | Fiberglass reinforced modified bitumen base sheet. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Sopraglass M GR | 39" x 33' (1 sq.) | ASTM D 5147 ASTM D 6163 | Fiberglass reinforced modified bitumen base sheet with a mineral granular top surface. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Sopra ESHAvent | 39" x 49' (1.5 sq.) | ASTM D 1970 | Fiberglass reinforced modified bitumen membrane with self-adhering round areas on back side and a sanded top side. |
| Sopraglass 40 | 39" x 82' (2.5 sq.) | ASTM D 4601 Type I | Fiberglass reinforced oxidized asphalt base sheet for bonding, mechanically attaching or ribbon stripping to substrate. |
| Sopraglass 100 | 39" x 66' (2 sq.) | ASTM D 4601 | Fiberglass reinforced oxidized asphalt base sheet for bonding or mechanically attaching to substrate. |
| Soprabase | 39" x 99' (3 sq.) | ASTM D 6164 | Oxidized asphalt, polyester reinforced base sheets. Primarily used as a mechanically attached anchor sheet. Applied in hot asphalt, cold adhesive or ribbon stripped. |
| Sopra IV or VI | 36" x 180' (5 sq.) | ASTM D 2178 Type IV or VI | Type IV or VI, fiberglass reinforced, smooth surfaced ply sheet. Sopra IV or VI are used in multi-ply systems and complies with ASTM and UL Standards. Applied in hot asphalt or cold adhesive. |
| Colvent TG | 39" x 49' (1.5 sq.) | ASTM D 6163 | Fiberglass reinforced, modified bitumen membrane with 1" wide factory applied heat weldable strips on back side. |



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|------------------------------------|---------------------|----------------------------|---|
| Colvent SA | 39" x 49' (1.5 sq.) | ASTM D 6163 | Fiberglass reinforced, modified bitumen membrane with 1" wide factory applied self-adhering strips on back side |
| Colvent 180 TG | 39" x 33' (1 sq.) | ASTM D 6164 | Polyester reinforced, modified bitumen membrane with 1" wide factory applied heat weld strips on back side. |
| Colvent 180 SA | 39" x 33' (1 sq.) | ASTM D6164 | Polyester reinforced, modified bitumen membrane with 1" wide factory applied self-adhering strips on back side |
| Colvent 180 TG GR | 39" x 33' (1 sq.) | ASTM D 6164 | Polyester reinforced, modified bitumen membrane with 1" wide factory applied heat weld strips on back side, and a mineral granular top surface. |
| Colvent 180 SA GR | 39" x 33' (1 sq.) | ASTM D6164 | Polyester reinforced, modified bitumen membrane with 1" wide factory applied self-adhering strips on back side and a mineral granular top surface. |
| Elastophene Sanded, Elastophene FR | 39" x 49' (1.5 sq.) | ASTM D 6163 | Fiberglass reinforced modified bitumen membrane sanded on both sides, used as a base and top ply. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Elastophene Sanded 3.0 | 39" x 33' (1sq.) | ASTM D 6163 | Fiberglass reinforced modified bitumen membrane sanded on both sides, used as a base and top ply. Applied in hot asphalt, cold adhesive or ribbon stripped. |
| Elastophene HD | 39" x 33' (1 sq.) | ASTM D 6163 | Fiberglass reinforced modified bitumen membrane sanded on both sides, used as a base and top ply. Applied in hot asphalt, cold adhesive or ribbon stripped. |
| Elastophene HS FR | 39" x 66' (2 sq.) | ASTM D 6162 | Woven fiberglass/polyester composite reinforced modified bitumen membrane with fire retardants and sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Elastophene Sanded FR | 39" x 49' (1.5 sq.) | ASTM D 6163 | Fiberglass reinforced modified bitumen membrane with fire retardants and sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Elastophene HR | 39" x 49' (1.5 sq.) | ASTM D 6163 | Fiberglass scrim reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Elastophene HR FR | 39" x 49' (1.5 sq.) | ASTM D 6163 | Fiberglass scrim reinforced modified bitumen membrane with fire retardants and sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Elastophene HP | 39" x 66' (2 sq.) | ASTM D 5147 ASTM D 6162 | Fiberglass/non-woven polyester reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping. |



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| Elastophene PS, Elastophene PS 3.0 | 39" x 49' (1.5 sq.) | ASTM D 6163 | 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 2.2mm | 39" x 49' (1.5 sq.) | ASTM D 6163 | Glass reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top. Applied b heat welding or ribbon stripping (after removal of plastic burn-off film). |
| Elastophene SP 3.0mm | 39" x 49' (1 sq.) | ASTM D 6163 | Glass reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top. Applied b heat welding or ribbon stripping (after removal of plastic burn-off film). |
| Elastophene Flam | 39" x 33' (1 sq.) | ASTM D 6163 | Fiberglass reinforced modified bitumen membrane covered on both sides with a plastic burn-off film. Applied by heat welding. |
| Elastophene Flam 2.2 | 39" x 49' (1.5 sq.) | ASTM D 6163 | Fiberglass reinforced modified bitumen membrane covered on both sides with a plastic burn-off film. Applied by heat welding. |
| Elastophene Flam HS FR | 39" x 33' (1 sq.) | ASTM D6162 | Woven fiberglass/polyester composite reinforced modified bitumen membrane with fire retardants and plastic burn-off film on both sides. Applied by heat welding. |
| Elastophene Flam HP | 39" x 66' (2 sq.) | ASTM D 5147 ASTM D 6162 | Fiberglass/non-woven polyester reinforced modified bitumen membrane with plastic burn-off film on both sides. Applied by heat welding. |
| Elastophene 180 Sanded | 39" x 49' (1.5 sq.) | ASTM D 6164 | Non-woven polyester reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Elastophene 180 PS | 39" x 49' (1.5 sq.) | ASTM D 6164 | Non-woven polyester reinforced modified bitumen membrane with a sanded bottom and a plastic burn-off film on the top, used as a base sheet. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Elastophene GR, Elastophene LS FR GR | 39" x 33' (1 sq.) | ASTM D 6163 | 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 or FR+ GR | 39" x 33' (1 sq.) | ASTM D 6163 | 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 HR FR GR | 39" x 33' (1 sq.) | ASTM D 6163 | Fiberglass scrim 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. |



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| Elastophene HS FR GR | 39" x 33' (1 sq.) | ASTM D 6162 | Woven fiberglass/polyester composite reinforced modified bitumen membrane with fire retardants, sanded on the bottom and mineral granules on the top. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Elastophene HP FR GR | 39" x 33' (1 sq.) | ASTM D 5147 ASTM D 6162 | Fiberglass/non-woven polyester reinforced modified bitumen membrane with fire retardants, sanded on the bottom and mineral granules on the top. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Elastophene Flam GR, Elastophene Flam LS FR GR | 39" x 33' (1 sq.) | ASTM D 6163 | 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 or FR+ GR | 39" x 33' (1 sq.) | ASTM D 6163 | 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 HR FR GR | 39" x 33' (1 sq.) | ASTM D 6163 | Fiberglass scrim 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). |
| Elastophene Flam HS FR GR | 39" x 33' (1 sq.) | ASTM D 6162 | Woven fiberglass composite reinforced modified bitumen membrane with fire retardants, a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film). |
| Elastophene Flam HP FR GR | 39" x 33' (1 sq.) | ASTM D 5147 ASTM D 6162 | Fiberglass/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 180, 250 or 350 | 39" x 33' (1 sq.) 39" x 26' (¾ sq.) | ASTM D 6164 | Non-woven polyester reinforced modified bitumen membrane sanded on both sides, used as a base/ply/cap. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Sopralene 180 SP 3.5 mm | 39" x 33' (1 sq.) | ASTM D 6164 | 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). |
| Soprafix [S], [H], [F] and [X] | 39" x 33' (1 sq.) | ASTM D 6164 | Non-woven polyester reinforced modified bitumen membrane. Applied by mechanical attachment. |



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| Soprafix | 39" x 33' (1 sq.) | ASTM D 6164 | Non-woven polyester reinforced modified bitumen membrane with a 4-inch or 5-inch wide side lap with a plastic burn-off film on the bottom and sanded on the top. Applied by mechanical attachment. Lap heat welded or sealed with an approved cold adhesive. |
| Soprafix-e | 39" x 33' (1 sq.) | ASTM D 6164 | Non-woven polyester reinforced modified bitumen membrane with a 5-inch wide side lap with a self-adhering compound and release film and sanded on the bottom and top surfaces. Applied by mechanical attachment. Lap self-adhered or sealed with approved cold adhesive. |
| Soprafix (X) | 39" x 33' (1 sq.) | ASTM D 6164 | Non-woven polyester reinforced modified bitumen membrane with plastic burn-off film or sanded on the top and bottom surfaces and a 6-inch wide side lap. Applied by heat welding. |
| Sopralene Flam 180, 250 or 350 | 39" x 33' (1 sq.) | ASTM D 6164 | Non-woven polyester reinforced SBS modified bitumen membrane, both sides covered with a plastic burn-off film, used as a base/ply. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film). |
| Sopralene 180, 250 or 350 GR or FR GR | 39" x 33' (1 sq.) | ASTM D 6164 | 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, 250 or 350 GR | 39" x 33' (1 sq.) | ASTM D 6164 | 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, 250 or 350 FR GR or FR+ GR | 39" x 33' (1 sq.) | ASTM D 6164 | 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 2.7 mm | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with fire retardants a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film). |
| Sopralast | various | ASTM D 6298 | Fiberglass reinforced modified bitumen sheeting faced with aluminum, copper or stainless steel foil. Applied by heat welding of ribbon stripping (after removal of plastic burn-off film). |
| Soprarstar Flam | 39" x 33' (1 sq.) | ASTM D6163 | Fiberglass reinforced SBS modified bitumen membrane with a plastic burn-off film on the bottom side and a reflective white top surface. Applied by heat welding. |



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| Soprastar Stick | 39" x 33' (1 sq) | ASTM D6163 | Fiberglass reinforced SBS modified bitumen membrane with a release film covered self-adhering bottom side and a reflective white top surface. |
| Soprastar 180 Sanded | 39"x33' (1sq) | ASTM D6162 ASTM D6164 | Non-woven polyester reinforced SBS modified bitumen membrane with a sanded bottom side and reflective white top surface. Applied by hot asphalt, cold adhesive or ribbon stripping. |
| Soprastar Flam 180 | 39"x33' (1sq) | ASTM D6162 ASTM D6164 | Non-woven polyester reinforced SBS modified bitumen membrane with a plastic burn-off film on the bottom side and reflective white top surface. Applied by heat welding. |
| UNILAY | 39" x 33' (1 sq.) | ASTM D 6164 | Non-woven polyester reinforced modified bitumen membrane with fire retardants and surfaced with mineral granules. Applied by mechanical attachment, heat welding or ribbon stripping (after removal of plastic burn-off film). |
| Sopralene Stick | 39" x 33' (1 sq.) | ASTM D 6164 | Self adhered, polyester reinforced membrane with a release film on the bottom and a sanded top. |
| Sopralene Flam Stick | 39" x 33' (1 sq.) | ASTM D 6164 | Self adhered, polyester reinforced membrane with a release film on the bottom and a plastic burn-off film on the top. |
| EPS Flam Stick | 39" x 33' (1 sq.) | ASTM D 6163 | Self adhered, film surfaced, glass mat/glass grid reinforced membrane with a release film on the bottom and a plastic burn-off film on the top. |
| Colphene 1500 | 39" x 33' (1 sq.) 39" x 132' (4 sq.) 39" x 66' (2.1 sq.) | ASTM D 1970 | Self adhered, non-reinforced membranes used as a vapor retarder. |
| Colphene FR GR, Colphene GR | 39" x 33' (1 sq.) | ASTM D 6163 | Self adhered, granule surfaced, fiberglass reinforced membranes. |
| Colphene HR FR GR | 39" x 33' (1 sq.) | ASTM D 6163 | Self adhered, granule surfaced, fiberglass scrim reinforced membranes. |
| Lastobond S | 39" x 49' (1.5 sq.) | ASTM D 1970 | Self-adhered underlayment membrane. |
| Lastobond Shield | various | ASTM D 1970 | Self-adhering underlayment membrane. |
| Lastobond Shield HT | various | ASTM D 1970 | Self-adhering underlayment membrane. |
| Lastobond Shield- R | various | ASTM D 1970 | Self-adhering underlayment membrane. |
| Lastobond Shield- HT RW | various | ASTM D 1970 | Self-adhering underlayment membrane. |
| Sopratape 606 | 5" wide | Proprietary | Bituminous tape for sealing of side and head laps. |
| Sopramastic 200 | 17 oz. pouch or 10.4 oz cartridge | Proprietary | Caulking compound. |
| Elastocol 400, 500 and 600c | various | ASTM D 41 | Asphalt primers. |
| Sopracolle "E" | keg | Proprietary | Cold-applied adhesive used to bond membrane to prepared substrates or to other membranes. |
| ALSAN Flashing™ | 1.25 gallon pail or 3.75 gallon pail | Proprietary | One part polyurethane/bitumen resin, moisture cure compound. |



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| ALSAN Polyfleece | 4", 8" or 39" wide by 50' long | Proprietary | Non-woven polyester reinforcement used in the ALSAN Flashing system. |
| SBS Mastic | 10.4 oz tube | Proprietary | Plasticized rubber/bitumen mastic compound. |
| SBS Elastic Cement | 5 gallon pail | Proprietary | Elastomeric bitumen based mastic compound. |
| Soprawalk | 39" x 26' (3/4 sq) | Proprietary | Non-woven polyester reinforced modified bitumen membrane with a sanded bottom and mineral granules on the top. Applied by hot asphalt, cold adhesive or ribbon stripping. |
| High Velocity® Insulation Adhesive II (HVIA-II) | 3 gal pail | Proprietary | One part elastomeric urethane foam adhesive. |
| High Velocity® Insulation Adhesive III (HVIA-III) | 4 dual cartridges per carton | Proprietary | Two part elastomeric urethane foam adhesive. |
| FM Adhesive | 5 gallon pail, 55 gallon drum or 350 gallon tote | Proprietary | Plastomeric bitumen based cold adhesive. |
| FM Adhesive Trowel Grade | 5 gallon pail | Proprietary | Plastomeric bitumen based cold adhesive. |
| FM Adhesive (VOC) | 5 gallon pail, 55 gallon drum or 350 gallon tote | Proprietary | Elastomeric bitumen based cold adhesive. |
| FM Adhesive (VOC) Trowel Grade | 5 gallon pail | Proprietary | Elastomeric bitumen based cold adhesive. |
| High Velocity® Membrane Adhesive (HVMA) | 5 gallon pail or 55 gallon drum | Proprietary | Polyurethane bitumen adhesive. |
| Sopraboard | various | Proprietary | Mineral fortified asphaltic cored coverboard between two layers of asphalt saturated fiberglass mat. |
| Granules | 5 gallon pail or Supersac | | Semi-ceramic coated colored granules. |



APPROVED INSULATIONS:

TABLE 2

| Product Name | Product Description | Manufacturer (With Current NOA) |
|---|--|--|
| Apache Pyrox, Apache White Line, Apache Pyrox PSI-25, Apache White Line PSI-25 | Polyisocyanurate foam insulation | Apache Products Company |
| Apache Millox, Apache Millox-P ACFoam II, ACFoam III | Composite polyisocyanurate insulation Polyisocyanurate foam insulation | Apache Products Company Atlas Energy Products |
| ACFoam Composite | Composite polyisocyanurate insulation board | Atlas Energy Products |
| FlintBoard ISO, FlintBoard ISO Cold FlintBoard ISO Plus | Polyisocyanurate foam insulation Composite polyisocyanurate insulation board | CertainTeed Corp. CertainTeed Corp. |
| Hytherm AP | Polyisocyanurate foam insulation | Dow |
| Hytherm Composite | Composite polyisocyanurate insulation | Dow |
| ISO 95+, ISO 95+ (25psi) | Polyisocyanurate foam insulation | Firestone |
| ISO 95+ Composite | Composite polyisocyanurate insulation board | Firestone |
| EnergyGuard ISO, EnergyGuard Ultra | Polyisocyanurate foam insulation | GAF |
| EnergyGuard Composite | Composite polyisocyanurate insulation board | GAF |
| Extruded or Expanded Polystyrene Gypsum | Polystyrene Insulation Gypsum board | generic generic |
| High Density Wood Fiberboard | Wood fiber insulation board | generic |
| Perlite Insulation | Perlite insulation board | generic |
| DensDeck, DensDeck Prime, DensDeck Fireguard, DensDeck Prime Fireguard, DensDeck DuraGuard | Water resistant gypsum board | G-P Gypsum Corp. |
| H-Shield | Polyisocyanurate foam insulation | Hunter Panels, Inc. |
| H-Shield CG | Polyisocyanurate foam insulation | Hunter Panels, Inc. |
| H-Shield-P, H-Shield-WF | Composite Insulation board | Hunter Panels, Inc. |
| ENRGY-2 | Polyisocyanurate foam insulation | Johns Manville |
| ENRGY-2 Plus, Composite, Fesco Foam | Composite Insulation board | Johns Manville |
| ENRGY-3 | Polyisocyanurate foam insulation | Johns Manville |
| ENRGY-3 Plus | Composite Insulation board | Johns Manville |
| Multi-Max FA | Polyisocyanurate foam insulation | RMax |
| Thermarroof Composite | Composite Insulation board | RMax |
| UltraMax | Polyisocyanurate foam insulation | RMax |
| Multi-Max FA-3 | Polyisocyanurate foam insulation | RMax |
| Thermarroof Composite-3 | Composite insulation board | RMax |



APPROVED FASTENERS:

TABLE 3

| Fastener Number | Product Name | Product Description | Dimensions | Manufacturer (With Current NOA) |
|------------------------|--------------------------------------|--|---|--|
| 1. | Tri-Fix Fastening System | Fastening system for base sheet attachment to lightweight concrete, gypsum or cementitious wood fiber decks. | 3" diameter plate with various length fasteners | Soprema, Inc. |
| 2. | #12, #14 & #15 Soprema Fasteners | Fasteners for membrane or insulation attachment to wood, steel or concrete decks. | | Soprema, Inc. |
| 3. | Soprafix [X]-EL #15 | Fasteners for membrane attachment to steel or concrete decks. | | Soprema, Inc. |
| 4. | Soprafix Plates | AZ-55 Galvalume steel plate for use with the Soprafix system. | 2" diameter | Soprema, Inc. |
| 5. | Soprema Plates | Metal or plastic stress plates for use with Soprema Fasteners. | 3" diameter | Soprema, Inc. |
| 6. | Sopradisc | Galvanized metal bearing plate used for side lap attachment of Soprafix system. | 2" diameter | Soprema, Inc. |
| 7. | Soprema Isofast IF/IFT | AZ-50 Galvalume steel plate for use with the Soprafast System. | 2 3/4" diameter | Soprema, Inc. |
| 8. | Soprafix/Soprafast | Stress plates for membrane securement. | 3" diameter | Soprema, Inc. |
| 9. | UNILAY Plate | Stress plates for Unilay membrane securement. | 2-3/8" diameter | Soprema, Inc. |
| 10. | #12, #14 & #15 Dekfast Fastener | Insulation fastener | | SFS Intec |
| 11. | Omega Fastener | Stainless steel insulation fastener | | SFS Intec |
| 12. | Dekfast Hex Plate | Galvalume AZ50 steel plate | 2 7/8" x 3 1/4" | SFS Intec |
| 13. | Dekfast Lock Plate | Polypropylene locking plate. | 3" x 3 1/4" | SFS Intec |
| 14. | Twin Loc-Nails | Base ply fastening systems for lightweight concrete, gypsum or cementitious wood fiber decks | | ES Products, Inc. |
| 15. | FM-30, FM-45, FM-60, FM-90 Fasteners | Base ply fastening systems for lightweight concrete decks | | ES Products, Inc. |
| 16. | OMG AccuTrac Hextra Fastener | Insulation fastener for wood and steel. | | OMG, Inc. |
| 17. | OMG AccuTrac Plate | Galvalume square stress plate | 3" square | OMG, Inc. |
| 18. | OMG 3" Standard Steel Plate | Galvalume stress plate. | 3" round 3" square | OMG, Inc. |
| 19. | Olympic CR Base Ply Fasteners | Base ply fastening assembly | | OMG, Inc. |



NOA No.: 09-0402.17
 Expiration Date: 03/01/11
 Approval Date: 06/10/09
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APPROVED FASTENERS:

TABLE 3

| Fastener Number | Product Name | Product Description | Dimensions | Manufacturer (With Current NOA) |
|------------------------|---------------------------------|---|------------------------------|--|
| 20. | NTB Magnum | Glass reinforced Nylon insulation fastener for gypsum & CWF decks with barbs. | | OMG, Inc. |
| 21. | NTB Plate | Galvalume stress plate | 3" round | OMG, Inc. |
| 22. | Lite-Deck | Insulation fastener for CWF and Gypsum decks. | | OMG, Inc. |
| 23. | Lite-Deck Plate | Galvalume stress plate | 3" round | OMG, Inc. |
| 24. | Olympic Fastener #12, #14 & #15 | Insulation fastener. | | OMG, Inc. |
| 25. | Olympic CD-10 | Insulation fastener. | | OMG, Inc. |
| 26. | Olympic Fluted Nail | Insulation fastener. | | OMG, Inc. |
| 27. | Olympic Standard | Galvalume AZ50 steel plate | 3" round | OMG, Inc. |
| 28. | Olympic Plastic | Polypropylene stress plate | 3.25" round | OMG, Inc. |
| 29. | Powerlite | Insulation fastener. | | Powers Fasteners, Inc. |
| 30. | Powerlite | Galvalume stress plate. | 3" round | Powers Fasteners, Inc. |
| 31. | Base-Lok Fasteners | Base sheet fastener for lightweight concrete, cwf and gypsum decks | 1.75" long with 3" dia. head | Simplex Nails |
| 32. | Turbo Tube-Lok Fasteners | Base sheet fastener for lightweight concrete, cwf and gypsum decks | 1.75" long with 2" dia. head | Simplex Nails |
| 33. | SFS Base-Lok Fasteners | Base sheet fastener for lightweight concrete, cwf and gypsum decks | 1.75" long with 3" dia. head | SFS Intec, Inc. |
| 34. | Insul-Fixx Fastener | Insulation fastener for wood, steel and concrete. | | SFS Intec, Inc. |
| 35. | Isofast Fasteners | Insulation fastener for wood, steel and concrete. | | SFS Intec, Inc. |
| 36. | Extra Load Fasteners #15 | Fasteners for membrane attachment to steel or concrete decks. | | SFS Intec, Inc. |
| 37. | Insul-Fixx S Plate | Galvalume AZ50 steel plate | 3" round | SFS Intec, Inc. |
| 38. | Insul-Fixx P Plate | Polyethylene stress plate | 3" round | SFS Intec, Inc. |
| 39. | Isofast Plate | Square or oblong galvalume steel plates for use with Isofast fasteners | | SFS Intec, Inc. |



APPROVED FASTENERS:

TABLE 3

| Fastener Number | Product Name | Product Description | Dimensions | Manufacturer (With Current NOA) |
|------------------------|---|--|-------------------|--|
| 40. | ES-I Fastening Systems | Insulation fastening assembly with plate. | 3" round | SFS Intec, Inc. |
| 41. | #12, #14 & #15 Dekfast Fastener | Insulation fastener | | SFS Intec, Inc. |
| 42. | Omega Fastener | Stainless steel insulation fastener | | SFS Intec, Inc. |
| 43. | Dekfast Hex Plate | Galvalume AZ50 steel plate | 2 7/8" x 3 1/4" | SFS Intec, Inc. |
| 44. | DekFlat Lock Plate | Polypropylene locking plate. | 3" x 3 1/4" | SFS Intec, Inc. |
| 45. | Tru-Fast TL Fastener | Insulation fastener for lightweight concrete, CWF and gypsum decks | | The Tru-Fast Corp. |
| 46. | Tru-Fast Fastener | Insulation fastener for wood, steel and concrete. | | The Tru-Fast Corp. |
| 47. | Tru-Fast HD or EHD | Insulation fastener for wood, steel and concrete. | | The Tru-Fast Corp. |
| 48. | Tru-Fast MP-3 | Galvalume AZ50 steel plate | 3" round | The Tru-Fast Corp. |
| 49. | Tru-Fast Metal | Galvalume AZ55 steel plate | 3" round | The Tru-Fast Corp. |
| 50. | Tru-Fast Plastic | Polypropylene plate | 3" round | The Tru-Fast Corp. |
| 51. | ES Products Batten Bar-TL | Batten bar | | ES Products, Inc. |
| 52. | OMG #12 | Insulation fastener | | OMG, Inc. |
| 53. | OMG Polymer Batten Strip | Modified polymer batten bar | | OMG, Inc. |
| 54. | OMG MAXLoad | Insulation fastener | | OMG, Inc. |
| 55. | Olympic Heavy Duty | Insulation fastener | | OMG, Inc. |
| 56. | Olympic ASAP 3P | Pre-assembled insulation fastener and plastic plate | 3" round | OMG, Inc. |
| 57. | Olympic ASAP 3S | Pre-assembled insulation fastener and steel plate | 3" round | OMG, Inc. |
| 58. | Isofast IF2 | Insulation fastener | | SFS Intec, Inc. |
| 59. | Isofast IF/IG | Galvalume AZ50 steel plate | 82 x 40 mm | SFS Intec, Inc. |
| 60. | Isofast IFC/IW | Galvalume AZ50 steel plate | 70 x70 mm | SFS Intec, Inc. |
| 61. | #15 Dekfast HS | Insulation fastener | | SFS Intec, Inc. |
| 62. | Galvalume Steel 3" Round Insulation Plate | Galvalume AZ50 steel plate | 3" round | SFS Intec, Inc. |
| 63. | K-Fast Fastener | Insulation Fastener | | SFS Intec, Inc. |



APPROVED FASTENERS:

TABLE 3

| Fastener Number | Product Name | Product Description | Dimensions | Manufacturer (With Current NOA) |
|------------------------|-------------------------------------|---|-------------------|--|
| 64. | Dekfast Steel Batten Bar | Galvalume AZ50 steel | | SFS Intec, Inc. |
| 65. | Dekfast Coiled Batten Strip | Batten bar | | SFS Intec, Inc. |
| 66. | Soprafix #14 PAS-2" SB Stress Plate | Pre-assembled plate and fastener | 2" diameter | Soprema, Inc. |
| 67. | Soprema 3" Insulation Plate | Stress plate | 3" diameter | Soprema, Inc. |
| 68. | Soprafix 2" – SB Stress Plate | Stress plate | 2" diameter | Soprema, Inc. |
| 69. | Soprafix 2-3/8" – SB Stress Plate | Stress plate | 2-3/8" diameter | Soprema, Inc. |
| 70. | Soprafix (X) 2-3/4" Stress Plate | Stress plate | 2-3/4" diameter | Soprema, Inc. |
| 71. | Soprafix MBB-R | Metal Batten Bar | | Soprema, Inc. |
| 72. | Soprema #12, #14, #15 Fastener | Insulation and membrane fasteners | | Soprema, Inc. |
| 73. | Soprema PAS #12-3" Insulation Plate | Pre-assembled plate and fastener | 3" diameter | Soprema, Inc. |
| 74. | Soprafix #21-K Fastener | Insulation and membrane fastener | | Soprema, Inc. |
| 75. | Tru-Fast DP | Insulation fastener for wood, steel and concrete | | The Tru-Fast Corp. |
| 76. | Tru-Fast SHD | Insulation fastener for wood, steel and concrete | | The Tru-Fast Corp. |
| 77. | Tru-Fast MPH-3 | Galvalume AZ50 steel plate | 3" round | The Tru-Fast Corp. |
| 78. | Tru-Fast MP-2000 | | | The Tru-Fast Corp. |
| 79. | Tru-Fast MPB-2000 | | | The Tru-Fast Corp. |
| 80. | Tru-Fast MPB-2400 | | | The Tru-Fast Corp. |
| 81. | Tru-Fast BB-18 Batten Bar | Galvalume AZ55 steel batten bar | | The Tru-Fast Corp. |
| 82. | Tru-Fast BB-18-R Batten Bar | Galvalume AZ55 steel batten bar with recessed holes | | The Tru-Fast Corp. |
| 83. | Tru-Fast Twin-Loc Batten Bar | Batten bar | | The Tru-Fast Corp. |



APPROVED SURFACING/COATING OPTIONS:

TABLE 4

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



EVIDENCE SUBMITTED:

| <u>Test Agency/Identifier</u> | <u>Report</u> | <u>Name</u> | <u>Date</u> | |
|-------------------------------|----------------------------|---------------------------------|--------------|----------|
| Factory Mutual Research Corp. | J.I. 1Z3A6.AM | FM 4470 | 04.27.95 | |
| | J.I. 2D0A0.AM | FM 4470 | 08.15.97 | |
| | J.I. 3009814 | FM 4470 | 09.06.02 | |
| | 3002351 | FM 4470 | 02.28.03 | |
| | 3017614 | FM 4470 | 02.27.06 | |
| | 3025860 | FM 4470 | 04.17.06 | |
| | 3026028 | FM 4470 | 05.25.06 | |
| | 3023749 | FM 4470 | 09.28.06 | |
| | 3029098 | FM 4470 | 10.25.07 | |
| | 3032109 | FM 4470 | 07.21.08 | |
| | Dynatech Engineering Corp. | 2491-04.95 | TAS 114 | 01.04.95 |
| | | Exterior Research & Design, LLC | 2003.02.97-1 | TAS 114 |
| | 2003-2.04.97-1 | | TAS 114 | 04.15.97 |
| | 2002.07.97-1 | | TAS 114 | 08.15.97 |
| 2738.10.00-1 | TAS 114 | | 10.20.02 | |
| 2109.08.02 | TAS 114 | | 08.06.02 | |
| 2764.09.03 | TAS 114 | | 09.16.03 | |
| 2766.12.03 | TAS 114 | | 12.01.03 | |
| 2779.11.05-R1 | TAS 114 | | 04.18.07 | |
| 2774.04.05-R1 | TAS 114 | | 04.18.07 | |
| S6740.11.07 | ASTM D 6163 | | 11.02.07 | |
| S12370.03.09-1 | ASTM D 6164 | | 03.06.09 | |
| S12370.03.09-2 | ASTM D 6164 | | 03.06.09 | |
| S12370.03.09-3 | ASTM D 6162 | | 03.06.09 | |
| IRT of S. Florida, Inc. | 990028 | | TAS 114 | 09.30.99 |
| | 02-017 | TAS 114 | 04.16.02 | |
| | 02-022 | TAS 114 | 07.07.02 | |
| | 02-031 | TAS 114 | 09.06.02 | |



APPROVED ASSEMBLIES:

Deck Type 7I: Recover
Deck Description: wood/steel/concrete/lightweight concrete/cementitious wood fiber/gypsum
System Type A(1): Anchor sheet mechanically fastened; all layers of insulation adhered with approved asphalt.

All General and System Limitations apply.
 One or more layers of any of the following insulations.

| <u>Base Insulation Layer</u> | <u>Insulation Fasteners (Table 3)</u> | <u>Fastener Density/ft²</u> |
|---|---|--|
| AC Foam II, AC Foam III, ENRGY-2, ENRGY-3, PSI-25, Multi-Max FA, Multi-Max FA-3, H-Shield (flat or tapered) Minimum 1.5" thick | N/A | N/A |
| <u>Base or Top Insulation Layer</u> | <u>Insulation Fasteners (Table 3)</u> | <u>Fastener Density/ft²</u> |
| Toprox Minimum 1" thick | N/A | N/A |
| <u>Top Insulation Layer</u> | <u>Insulation Fasteners (Table 3)</u> | <u>Fastener Density/ft²</u> |
| BP High Strength, FM-90 Traffic Top/High Density, GAFTEMP High Density, Roof Insulation Board, High Density Fiberboard, Fiber Base HD1, HD6, Structodek Minimum 1/2" thick | N/A | N/A |
| GAFTEMP Permalite, Fesco Board Minimum 3/4" thick | N/A | N/A |
| DensDeck Minimum 1/4" thick | N/A | N/A |
| Fireguard, Type X gypsum Minimum 5/8" thick | N/A | N/A |

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

Anchor Sheet: One ply of Sopra-G, Modified Sopra-G, Soprabase, Sopraglass 100, GAFGLAS #75 or JM Perma Ply 28 fastened to the deck as described below:

Fastening #1: (*wood, steel, concrete*) Attach anchor sheet using CF #14 Dekfast with Hex Plates or SFS Insulfixx S or HD Insulfixx S spaced 9" o.c. in a 4" lap and 12" o.c. in two staggered rows in the center of the sheet.

Fastening #2: (*gypsum*) Attach anchor sheet using 1.8" long Twin Loc-Nails spaced 9" o.c. in a 2" lap and 18" o.c. in two staggered rows in the center of the sheet.



Fastening #3: (*lightweight concrete, cementitious wood fiber, gypsum*) Attach anchor sheet using Simplex Turbo Tube-Lok fasteners spaced 9" o.c. in a 4" lap and 12" o.c. in two staggered rows in the center of the sheet.

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

Base Sheet: (Optional) One or more plies of Sopra-G, Modified Sopra-G, Sopraglass 40, Sopraglass 100, Sopra-IV, Sopra-VI, Soprabase, GAFGLAS #75, JM Perma Ply 28, GlasPly IV or GlasPly Premier adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional, required if no base sheet used) One or more plies of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene (180, 250 or 350) Flam* or Sopralene (180, 250 or 350) SP, heat welded

Or

One or more plies of Elastophene Sanded, Elastophene Sanded FR, Elastophene HR, Elastophene HR FR, Elastophene 180 Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Sopralene (180, 250 or 350) PS*, Sopralene (180, 250 or 350) Sanded or ASTM D 2178 Type IV or VI ply sheet, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

*Requires heat welded cap membrane.

Membrane: Elastophene SP 2.2mm*, Elastophene SP 3.0mm*, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, Elastophene Flam LS FR GR, Soprastar Flam, Soprastar Flam 180, Sopralene (180, 250, 350) Flam GR, Sopralene (180, 250, 350) Flam FR GR or FR+ GR, or Sopralast heat welded

Or

Elastophene Sanded*, Elastophene Sanded FR*, Elastophene HR*, Elastophene HR FR*, Elastophene 180 Sanded*, Sopralene (180, 250, 350) Sanded*, Elastophene FR GR or FR+ GR, Elastophene LS FR GR, Elastophene GR, Soprastar 180 Sanded, Sopralene (180, 250, 350) GR, or Sopralene (180, 250, 350) FR GR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base or ply membrane.

*Requires approved Surfacing.

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

Maximum Design Pressure: -45 psf (See General Limitation #9)



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Deck Type 7I: Recover
Deck Description: wood/steel/concrete/lightweight concrete/cementitious wood fiber/gypsum
System Type A(2): 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.

| <u>Base Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|---|---|--|
| AC Foam II, AC Foam III, ENRGY-2, ENRGY-3, PSI-25, H-Shield (flat or tapered) Minimum 1.5" thick | N/A | N/A |
| <u>Base or Top Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
| Toprox Minimum 1" thick | N/A | N/A |
| <u>Top Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
| BP High Strength, FM-90 Traffic Top/High Density, GAFTEMP High Density, Roof Insulation Board, High Density Fiberboard, Fiber Base HD1, HD6, Structodek Minimum 1/2" thick | N/A | N/A |
| GAFTEMP Permalite, Fesco Board Minimum 3/4" thick | N/A | N/A |
| DensDeck Minimum 1/4" thick | N/A | N/A |
| Fireguard, Type X gypsum Minimum 5/8" thick | N/A | N/A |

Note: Existing roof surface shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of vapor barrier or insulation. All insulation shall be adhered to the deck in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft² or in Henry III Insulbond at 2.0-2.5 gallons/sq. Please refer to Roofing Application Standard PA 117 for insulation attachment. Insulations listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) One or more plies of Sopra-G, Modified Sopra-G, Sopraglass 40, Sopraglass 100, Sopra-IV, Sopra-VI, Soprabase, GAFGLAS #75, JM Perma Ply 28, GlasPly IV or GlasPly Premier adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.



Ply Sheet: (Optional, required if no base sheet used) One or more plies of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene (180, 250 or 350) Flam* or Sopralene (180, 250 or 350) SP, heat welded

Or

One or more plies of Elastophene Sanded, Elastophene Sanded FR, Elastophene HR, Elastophene HR FR, Elastophene 180 Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Sopralene (180, 250 or 350) PS*, Sopralene (180, 250 or 350) Sanded or ASTM D 2178 Type IV or VI ply sheet, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

*Requires heat welded cap membrane.

Membrane: Elastophene SP 2.2mm*, Elastophene SP 3.0mm*, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, Elastophene Flam LS FR GR, Soprastar Flam, Soprastar Flam 180, Sopralene (180, 250, 350) Flam GR, Sopralene (180, 250, 350) Flam FR GR or FR+ GR or Sopralast, heat welded

Or

Elastophene Sanded*, Elastophene Sanded FR*, Elastophene HR*, Elastophene HR FR*, Elastophene 180 Sanded*, Sopralene (180, 250, 350) Sanded*, Elastophene FR GR or FR+ GR, Elastophene LS FR GR, Elastophene GR, Soprastar 180 Sanded, Sopralene (180, 250, 350) GR, or Sopralene (180, 250, 350) FR GR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base or ply membrane.

*Requires approved Surfacing.

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

Maximum Design Pressure: -420 psf; (for min. 1.5" thick Approved polyisocyanurate in asphalt followed by min. 3/4" thick Fesco Board in asphalt over concrete deck.) (See General Limitation #9.)
-345 psf; (for min. 1.5" thick Approved polyisocyanurate in asphalt followed by min. 1/2" thick High Density Fiberboard or 3/4" thick GAFTEMP Permalite in asphalt over concrete deck.) (See General Limitation #9.)
-177 psf; (for min. 1.5" thick Approved polyisocyanurate in asphalt followed by min. 1/4" thick Georgia Pacific DensDeck in asphalt over concrete deck.) (See General Limitation #9.)
-237 psf; (for min. 1/4" thick Georgia Pacific DensDeck in asphalt only over concrete deck.) (See General Limitation #9.)
-60 psf; (for all other applications and deck types) (See General Limitation #9.)



Deck Type 7I: Recover
Deck Description: wood/steel/concrete/lightweight concrete/cementitious wood fiber/gypsum
System Type A(3): 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.

| <u>Base Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|---|---|--|
| AC Foam II, AC Foam III, ENRGY 2, ENRGY-3, H-Shield (flat or tapered) Minimum 1.5" thick | N/A | N/A |

Note: Existing roof surface shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of vapor barrier or insulation. Base insulation layer shall be adhered to the vapor barrier or primed deck in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft² or OlyBond Insulation Adhesive applied at a rate of 1 gal./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

| <u>Top Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|---|---|--|
| DensDeck Minimum ¼" thick | N/A | N/A |
| BP High Strength, FM-90 Traffic Top/High Density, GAFTEMP High Density, Roof Insulation Board, High Density Fiberboard, Fiber Base HD1, HD6, Structodek Minimum ½" thick | N/A | N/A |

Note: Apply top layer of insulation in a full mopping of any approved mopping hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft² or OlyBond Insulation Adhesive applied at a rate of 1 gal./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as Base Layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) One or more plies of Sopra-G, Modified Sopra-G, Sopraglass 40, Sopraglass 100, Sopra-IV, Sopra-VI, Soprabase, GAFGLAS #75, Perma Ply 28, JM GlasPly IV or JM GlasPly Premier adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional, required if no base sheet used) One or more plies of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene (180, 250 or 350) Flam* or Sopralene (180, 250 or 350) SP, heat welded

Or

One or more plies of Elastophene Sanded, Elastophene Sanded FR, Elastophene HR, Elastophene HR FR, Elastophene 180 Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Sopralene (180, 250 or 350) PS*, Sopralene (180, 250 or 350) Sanded or ASTM D 2178 Type IV or VI ply sheet, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

*Requires heat welded cap membrane.



Membrane: Elastophene SP 2.2mm*, Elastophene SP 3.0mm*, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, Elastophene Flam LS FR GR, Soprastar Flam, Soprastar Flam 180, Sopralene (180, 250, 350) Flam GR, Sopralene (180, 250, 350) Flam FR GR or FR+ GR, or Sopralast, heat welded

Or

Elastophene Sanded*, Elastophene Sanded FR*, Elastophene HR*, Elastophene HR FR*, Elastophene 180 Sanded*, Sopralene (180, 250, 350) Sanded*, Elastophene FR GR or FR+ GR, Elastophene LS FR GR, Elastophene GR, Soprastar 180 Sanded, Sopralene (180, 250, 350) GR, or Sopralene (180, 250, 350) FR GR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base or ply membrane.

*Requires approved Surfacing.

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

Maximum Design Pressure: -127.5 psf; (See General Limitation #9.)



Deck Type 7I: Recover
Deck Description: wood/steel/concrete/lightweight concrete/cementitious wood fiber/gypsum
System Type A(4): All layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations.

| <u>Base Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|---|---|--|
| ENRGY-2, ENRGY-3, AC Foam II, AC Foam III, H-Shield (flat or tapered) Minimum 1.5" thick | N/A | N/A |
| <u>Top Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
| DensDeck Minimum ¼" thick | N/A | N/A |

Note: Existing roof surface shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of vapor barrier or insulation. All insulation shall be adhered to the vapor barrier or primed deck in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft² or High Velocity® Insulation Adhesive II (HVIA-II) or High Velocity® Insulation Adhesive III (HVIA-III) applied in continuous ¾" to 1" wide ribbons at a maximum spacing of 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) One or more plies of Sopra-G, Modified Sopra-G, Sopraglass 40, Sopraglass 100, Sopra-IV, Sopra-VI, Soprabase, GAFGLAS #75, Perma Ply 28, JM GlasPly IV or JM GlasPly Premier adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: One or more plies of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene (180, 250 or 350) Flam*, or Sopralene (180, 250 or 350) SP, heat welded

Or

One or more plies of Elastophene Sanded, Elastophene Sanded FR, Elastophene HR, Elastophene HR FR, Elastophene 180 Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Sopralene (180, 250 or 350) PS*, or Sopralene (180, 250 or 350) Sanded or one or more plies of Type IV or Type VI ply sheets, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

*Requires heat weld cap membrane.



Membrane:

Elastophene SP 2.2mm*, Elastophene SP 3.0mm*, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, Elastophene Flam LS FR GR, Soprastar Flam, Soprastar Flam 180, Sopralene (180, 250, 350) Flam GR, Sopralene (180, 250, 350) Flam FR GR or FR+ GR, or Sopralast, heat welded

Or

Elastophene Sanded*, Elastophene Sanded FR*, Elastophene HR*, Elastophene HR FR*, Elastophene 180 Sanded*, Sopralene (180, 250, 350) Sanded*, Elastophene FR GR or FR+ GR, Elastophene LS FR GR, Elastophene GR, Soprastar 180 Sanded, Sopralene (180, 250, 350) GR, or Sopralene (180, 250, 350) FR GR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base or ply membrane.

*Requires approved Surfacing.

Surfacing:

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

Maximum Design

Pressure:

-60 psf; (See General Limitation #9.)



Deck Type 7I: Recover
Deck Description: wood/steel/concrete/lightweight concrete/cementitious wood fiber/gypsum
System Type A(5): One or more layers of insulation adhered with approved adhesive or asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer

AC Foam II, AC Foam III, H-Shield (flat or tapered)
 Minimum 1.5" thick

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

N/A

N/A

Top Insulation Layer

DensDeck
 Minimum 1/4" thick

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

N/A

N/A

Note: Existing roof surface shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of vapor barrier or insulation. All insulation shall be adhered to the vapor barrier or primed deck in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft² or Insta-Stik Adhesive applied in continuous 3/4" to 1" wide ribbons at a maximum spacing of 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) One or more plies of Sopra-G, Modified Sopra-G, Sopraglass 40, Sopraglass 100, Sopra-IV, Sopra-VI, Soprabase, GAFGLAS #75, Perma Ply 28, JM GlasPly IV or JM GlasPly Premier adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: One or more plies of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene (180, 250 or 350) Flam*, or Sopralene (180, 250 or 350) SP, heat welded

Or

One or more plies of Elastophene Sanded, Elastophene Sanded FR, Elastophene HR, Elastophene HR FR, Elastophene 180 Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Sopralene (180, 250 or 350) PS*, or Sopralene (180, 250 or 350) Sanded or one or more plies of Type IV or Type VI ply sheets, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

*Requires heat welded cap membrane.



Membrane:

Elastophene SP 2.2mm*, Elastophene SP 3.0mm*, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, Elastophene Flam LS FR GR, Soprastar Flam, Soprastar Flam 180, Sopralene (180, 250, 350) Flam GR, Sopralene (180, 250, 350) Flam FR GR or FR+ GR, or Sopralast, heat welded

Or

Elastophene Sanded*, Elastophene Sanded FR*, Elastophene HR*, Elastophene HR FR*, Elastophene 180 Sanded*, Sopralene (180, 250, 350) Sanded*, Elastophene FR GR or FR+ GR, Elastophene LS FR GR, Elastophene GR, Soprastar 180 Sanded, Sopralene (180, 250, 350) GR, or Sopralene (180, 250, 350) FR GR, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base or ply membrane.

*Requires approved Surfacing.

Surfacing:

Surfacing is Optional on granular surfaced field cap membranes.

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

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

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

Maximum Design

Pressure:

-90 psf; (See General Limitation #9.)



Deck Type 7I: Recover
Deck Description: wood/steel/concrete/lightweight concrete/cementitious wood fiber/gypsum
System Type A(6): 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.

| <u>Base Insulation Layer</u> | <u>Insulation Fasteners (Table 3)</u> | <u>Fastener Density/ft²</u> |
|---|---|--|
| AC Foam II, AC Foam III, ENRGY 2, ENRGY-3, H-Shield (flat or tapered) Minimum 1.5" thick | N/A | N/A |
| <u>Top Insulation Layer</u> | <u>Insulation Fasteners (Table 3)</u> | <u>Fastener Density/ft²</u> |
| DensDeck Minimum ¼" thick | N/A | N/A |
| High Density Wood Fiberboard Minimum ½" thick | N/A | N/A |

Note: Existing roof surface shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of vapor barrier or insulation. All insulation shall be adhered to the vapor barrier or primed deck in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft² or High Velocity® Insulation Adhesive II (HVIA-II) or High Velocity® Insulation Adhesive III (HVIA-III) applied in continuous ¾" to 1" wide ribbons at a maximum spacing of 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) One or more plies of Sopra-G, Modified Sopra-G, Sopraglass 40, Sopraglass 100, Sopra-IV, Sopra-VI, Soprabase, GAFGLAS #75, Perma Ply 28, JM GlasPly IV or JM GlasPly Premier adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: One or more plies of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene (180, 250 or 350) Flam*, or Sopralene (180, 250 or 350) SP, heat welded
 Or
 One or more plies of Elastophene Sanded, Elastophene Sanded FR, Elastophene HR, Elastophene HR FR, Elastophene 180 Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Sopralene (180, 250 or 350) PS*, or Sopralene (180, 250 or 350) Sanded or one or more plies of Type IV or Type VI ply sheets, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

*Requires heat welded cap membrane.



Membrane:

Elastophene SP 2.2mm*, Elastophene SP 3.0mm*, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, Elastophene Flam LS FR GR, Soprastar Flam, Soprastar Flam 180, Sopralene (180, 250, 350) Flam GR, Sopralene (180, 250, 350) Flam FR GR or FR+ GR, or Sopralast, heat welded

Or

Elastophene Sanded*, Elastophene Sanded FR*, Elastophene HR*, Elastophene HR FR*, Elastophene 180 Sanded*, Sopralene (180, 250, 350) Sanded*, Elastophene FR GR or FR+ GR, Elastophene LS FR GR, Elastophene GR, Soprastar 180 Sanded, Sopralene (180, 250, 350) GR, or Sopralene (180, 250, 350) FR GR, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base or ply membrane.

*Requires approved Surfacing.

Surfacing:

Surfacing is Optional on granular surfaced field cap membranes.

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

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

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

Maximum Design Pressure:

-105 psf; (for 1/2" thick High Density Wood Fiberboard)

(See General Limitation #9.)

-127.5 psf; (for 1/4" thick Dens Deck) (See General Limitation #9.)



Deck Type 7I: Recover
Deck Description: wood/steel/concrete/lightweight concrete/cementitious wood fiber/gypsum
System Type A(7): One or more layers of insulation adhered with approved adhesive or asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations.

| <u>Base Insulation Layer</u> | <u>Insulation Fasteners (Table 3)</u> | <u>Fastener Density/ft²</u> |
|---|---|--|
| AC Foam II, AC Foam III, ENRGY 2, ENRGY-3 Minimum 1.5" thick | N/A | N/A |

Note: Existing roof surface shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of vapor barrier or insulation. All insulation shall be adhered to the vapor barrier or primed deck in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft² or High Velocity® Insulation Adhesive II (HVIA-II) or High Velocity® Insulation Adhesive III (HVIA-III) 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.

Base Sheet: One ply of Sopralene Flam Stick*, self adhered.
 *Requires heat welded ply or cap membrane

Ply Sheet: (Optional) One or more plies of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene (180, 250 or 350) Flam*, or Sopralene (180, 250 or 350) SP, heat welded
 *Requires heat welded cap membrane

Membrane: Elastophene SP 2.2mm*, Elastophene SP 3.0mm*, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, Elastophene Flam LS FR GR, Soprastar Flam, Soprastar Flam 180, Sopralene (180, 250, 350) Flam GR, Sopralene (180, 250, 350) Flam FR GR or FR+ GR, or Sopralast, heat welded
 *Requires approved Surfacing.

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

Maximum Design Pressure: -225 psf; (See General Limitation #9.)



Deck Type 7: Recover
Deck Description: lightweight concrete/cementitious wood fiber/gypsum
System Type A(8): Anchor sheet mechanically fastened, all layers of insulation adhered with approved asphalt or adhesive

All General and System Limitations apply.

Vapor Barrier: One layer Elastophene HP, Soprabase, Elastophene 180 Sanded, Sopralene 180 Sanded, Sopralene 180 Sanded 2.2 mm, Sopralene 180 Sanded 3.5mm, Sopralene 250 Sanded 3.5mm, Sopralene 250 SP, Sopralene 350 Sanded or Sopralene 350 SP, mechanically attached with 1.8" long Twin Loc-Nails spaced 6" o.c. in min. 4" lap and 6" o.c. in two evenly spaced, staggered rows in the field.

One or more layers of the following.

| <u>Base Insulation Layer</u> | <u>Insulation Fasteners (Table 3)</u> | <u>Fastener Density/ft²</u> |
|---|---|--|
| ACFoam II, ENRGY 2, ENRGY 3, Multi-Max FA, Multi-Max FA-3 or H-Shield Minimum 1.5" thick | N/A | N/A |
| <u>Top Insulation Layer</u> | <u>Insulation Fasteners (Table 3)</u> | <u>Fastener Density/ft²</u> |
| DensDeck Minimum ¼" thick | N/A | N/A |
| Sopraboard Minimum 1/8" thick | N/A | N/A |
| Temple HD6 Minimum ½" thick | N/A | N/A |

Note: All insulation shall be adhered to the vapor barrier in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft², or in Soprema HighVelocity® Insulation Adhesive (HVIA-II) in ¾" wide ribbons spaced 6" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as a final membrane substrate.

Primer: Elastocol 400, 500, Elastocol 600c or AquaTac at a rate of 1 gal/sq, for use of Colvent SA, Colvent 180 SA, Sopralene Stick or Sopralene Flam Stick application.
 (Optional) Elastocol 400, 500, Elastocol 600C or AquaTac at a rate of 1 gal/sq for Colvent TG or Colvent 180 TG application.
 (Optional) Elastocol 400, 500, Elastocol 600c or AquaTac applied at a rate of 1 gal/sq, to top surface of any insulation, base or ply sheet prior to application of next layer.

Base Sheet: One layer Colvent SA, Colvent 180 SA, Sopralene Stick or Sopralene Flam Stick*, self-adhered.
 Or
 One layer Colvent TG or Colvent 180 TG (to DensDeck or Sopraboard only), heat welded.

*Requires heat welded ply or cap membrane.



**Ply Sheet:
(Optional)**

One or more layers of Sopralene Flam Stick*, EPS Flam Stick*, Sopralene Stick, self-adhered to sand surfaced base membrane.

Or

Elastophene Flam*, Elastophene Flam FR*, Elastophene Flam 2.2 mm*, Elastophene Flam HS FR*, Elastophene Flam HR 3.0 mm*, Elastophene Flam HP* Elastophene SP 2.2mm, Elastophene SP 3.0mm, Sopralene Flam 180*, Sopralene Flam 180 2.7 mm*, Sopralene 180 SP 3.5 mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350* or Sopralene 350 SP, heat welded.

Or

Elastophene Sanded, Elastophene Sanded FR, Elastophene Sanded 3.0 mm, Elastophene HR, Elastophene HR 3.0 mm, Elastophene HD, Elastophene HP, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 Sanded, Elastophene 180 PS*, Sopralene 180 Sanded, Sopralene 180 Sanded 3.5 mm, Sopralene 180 PS*, Sopralene 250 Sanded, Sopralene 250 Sanded 3.5 mm, Sopralene 250 PS*, Sopralene 250 PS 2.7 mm, Sopralene 350 Sanded, Sopralene 350 PS*, adhered in hot asphalt at 25 lbs/sq. or applied in FM Adhesive or FM Adhesive (VOC) at a rate of 1.5 gal/sq. to sand surfaced base membrane.

*Requires heat welded cap membrane.

Membrane:

One layer of Colphene HR FR GR, Colphene FR GR, Colphene GR, Sopralene Stick* or Colphene SA GR, self-adhered to sand surfaced base or ply membrane.

Or

Soprastar Stick, self-adhered to Elastocol 600c primed sand surfaced base or ply membrane

Or

Elastophene Flam GR, Elastophene Flam UW GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR UW GR, Elastophene Flam FR+ GR, Elastophene Flam FR+ UW GR, Elastophene Flam HR FR GR, Elastophene Flam HS FR GR, Elastophene Flam HS FR UW GR, Elastophene Flam HP FR GR, Soprastar Flam, Soprastar Flam 180, Sopralene 180 SP 3.5mm*, Soprafix*, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR UW GR, Sopralene Flam 180 FR+ GR, Sopralene 250 SP*, Sopralene Flam 250 GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR UW GR, Sopralene Flam 250 FR+ GR, Sopralene Flam 250 FR+ UW GR, Sopralene 350 SP*, Sopralene Flam 350 GR, Sopralene Flam 350 FR GR, Sopralene Flam Jardin, Sopralene Mammoth GR, Sopralast 50 TV Alu, Sopralast 50 TV Alu White, Sopralast Alu, Sopralast TV Copper, Sopralast Copper, Sopralast TV Inox or Sopralast Stainless Steel, heat welded.

Or

One layer of Elastophene Sanded*, Elastophene 180 Sanded*, Elastophene GR, Elastophene UW GR, Elastophene FR GR, Elastophene LS FR GR, Elastophene FR UW GR, Elastophene FR+ GR, Elastophene HD FR GR, Elastophene HR FR GR, Elastophene HS FR GR, Elastophene HS FR UW GR, Elastophene HP FR GR, Soprastar 180 Sanded, Sopralene 180 Sanded*, Sopralene 180 GR, Sopralene 180 FR GR, Sopralene 180 FR UW GR, Sopralene 250 Sanded*, Sopralene 250 GR, Sopralene 250 FR GR, Sopralene 250 FR UW GR, Sopralene 350 Sanded*, Sopralene 350 GR or Sopralene 350 FR GR, adhered in hot asphalt at 25 lbs/sq. or applied in FM Adhesive or FM Adhesive (VOC) at a rate of 1.5 gal/sq. to sand surfaced base or ply membrane.

*Requires approved Surfacing.

Surfacing:

Surfacing is Optional on granular surfaced field cap membranes.

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

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

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

**Maximum Design
Pressure:**

-60 psf (See General Limitation #7.)



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Deck Type 7I: Recover
Deck Description: wood/steel/concrete/lightweight concrete/cementitious wood fiber/gypsum
System Type B(1): Base layer of insulation mechanically fastened, optional top layer adhered with approved asphalt.

All General and System Limitations apply.
 One or more layers of any of the following insulations.

| <u>Base Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|---|---|--|
| AC Foam II, AC Foam III, Multi-Max FA, Multi-Max FA-3, H-Shield (flat or tapered) Minimum 1.5" thick | 2, 10, 11, 23, 24, 25, 33, 34, 39, 45 | 1:2 ft ² |
| ENRGY-2, ENRGY-3, PSI-25, H-Shield (flat or tapered) Minimum 1.4" thick | 2, 10, 11, 19, 21, 23, 24, 25, 28, 33, 34, 39, 44, 45 | 1:2.67 ft ² |
| AC Foam II, AC Foam III, ENRGY 2, ENRGY-3, PSI-25, Multi-Max FA, Multi-Max FA-3, H-Shield (flat or tapered) Minimum 2" thick | 2, 10, 11, 19, 21, 23, 24, 25, 28, 33, 34, 39, 44, 45 | 1:4 ft ² |
| AC Foam Composite, ENRGY-2 Composite, ENRGY-2 Plus, ENRGY-3 Plus, Thermarroof Composite (flat or tapered) Minimum 1.5" thick | 2, 10, 11, 19, 21, 23, 24, 25, 28, 33, 34, 39, 44, 45 | 1:4 ft ² |
| Toprox Minimum 1" thick | 2, 23 | 1:2.4 ft ² |
| DensDeck Minimum ¼" thick | 2, 11, 21, 23, 24, 25, 33 | 1:4 ft ² |
| Fireguard Minimum 5/8" thick | 2, 11, 21, 23, 24, 25, 33 | 1:4 ft ² |
| GAFTEMP Permalite, Fesco Board Minimum ¾" thick | 10, 11 | 1:2 ft ² |

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements set forth in applicable Building Code. (See Roofing Application Standard RAS 117 for fastening details).

| <u>(Optional) Middle Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|--|---|--|
| EPS Board - For use between DensDeck or Fireguard base layer and Approved wood fiber top layer only. Minimum 1" thick | N/A | N/A |

| <u>Top Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|---|---|--|
| BP High Strength, FM-90 Traffic Top/High Density, GAFTEMP High Density, Roof Insulation Board, High Density Fiberboard, Fiber Base HD1, HD6, Structodek Minimum ½" thick | N/A | N/A |
| GAFTEMP Permalite, Fesco Board Minimum ¾" thick | N/A | N/A |
| DensDeck Minimum ¼" thick | N/A | N/A |
| Fireguard, Type X gypsum Minimum 5/8" thick | N/A | N/A |



Toprox

Minimum 1" thick

N/A

N/A

Note: Apply optional top layer of insulation shall be adhered with approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as the base layer shall only be used as the base layer with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: (Optional) One or more plies of Sopra-G, Modified Sopra-G, Sopraglass 40, Sopraglass 100, Sopra-IV, Sopra-VI, Soprabase, GAFGLAS #75, JM Perma Ply 28, GlasPly IV or GlasPly Premier adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional, required if no base sheet used) One or more plies of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene (180, 250 or 350) Flam* or Sopralene (180, 250 or 350) SP, heat welded

Or

One or more plies of Elastophene Sanded, Elastophene Sanded FR, Elastophene HR, Elastophene HR FR, Elastophene 180 Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Sopralene (180, 250 or 350) PS*, Sopralene (180, 250 or 350) Sanded or ASTM D 2178 Type IV or VI ply sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

*Requires heat welded cap membrane.

Membrane: Elastophene SP 2.2mm*, Elastophene SP 3.0mm*, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, Elastophene Flam LS FR GR, Soprastar Flam, Soprastar Flam 180, Sopralene (180, 250, 350) Flam GR, Sopralene (180, 250, 350) Flam FR GR or FR+ GR or Sopralast, heat welded

Or

Elastophene Sanded*, Elastophene Sanded FR*, Elastophene HR*, Elastophene HR FR*, Elastophene 180 Sanded*, Sopralene (180, 250, 350) Sanded*, Elastophene FR GR or FR+ GR, Elastophene LS FR GR, Elastophene GR, Soprastar 180 Sanded, Sopralene (180, 250, 350) GR, or Sopralene (180, 250, 350) FR GR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base or ply membrane.

*Requires approved Surfacing.

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

Maximum Design Pressure:

-52.5 psf; (See General Limitation #9.)



Deck Type 7I: Recover
Deck Description: Steel/Concrete.
System Type B(2): Base layer of insulation mechanically fastened, optional top layer adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations.

| <u>Base Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|---|---|--|
| AC Foam II, AC Foam III, ENRGY-2, ENRGY-3, PSI-25, H-Shield (flat or tapered) Minimum 1.5" thick | 2, 10, 11, 23, 24, 25, 33, 34, 39, 45 | 1:1.33 ft ² |

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements set forth in applicable Building Code. (See Roofing Application Standard RAS 117 for fastening details).

| <u>Top Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|---|---|--|
| BP High Strength, FM-90 Traffic Top/High Density, GAFTEMP High Density, Roof Insulation Board, High Density Fiberboard, Fiber Base HD1, HD6, Structodek Minimum 1/2" thick | N/A | N/A |
| GAFTEMP Permalite, Fesco Board Minimum 3/4" thick | N/A | N/A |

Note: Apply optional top layer of insulation shall be adhered with approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as the base layer shall only be used as the base layer with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: (Optional) One or more plies of Sopra-G, Modified Sopra-G, Sopraglass 40, Sopraglass 100, Sopra-IV, Sopra-VI, Soprabase, GAFGLAS #75, JM Perma Ply 28, GlasPly IV or GlasPly Premier adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional, Required if no base membrane) One or more plies of Elastophene Sanded, Elastophene Sanded FR, Elastophene HR, Elastophene HR FR, Elastophene 180 Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Sopralene (180, 250 or 350) PS*, Sopralene (180, 250 or 350) Sanded or ASTM D 2178 Type IV or VI ply sheet, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

*Requires heat welded cap membrane.



Membrane: Elastophene SP 2.2mm*, Elastophene SP 3.0mm*, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, Elastophene Flam LS FR GR, Soprastar Flam, Soprastar Flam 180, Sopralene (180, 250, 350) Flam GR, Sopralene (180, 250, 350) Flam FR GR or FR+ GR, or Sopralast, heat welded

Or

Elastophene Sanded*, Elastophene Sanded FR*, Elastophene HR*, Elastophene HR FR*, Elastophene 180 Sanded*, Sopralene (180, 250, 350) Sanded*, Elastophene FR GR or FR+ GR, Elastophene LS FR GR, Elastophene GR, Soprastar 180 Sanded, Sopralene (180, 250, 350) GR, or Sopralene (180, 250, 350) FR GR, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base or ply membrane.

*Requires approved Surfacing.

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

Maximum Design Pressure: -67.5 psf (For perlite) (See General Limitation #7)
-75 psf (For High Density Wood Fiberboard) (See General Limitation #7)



Deck Type 7I: Recover
Deck Description: wood/steel/concrete
System Type C(1): All layers of insulation simultaneously attached.

All General and System Limitations apply.

One or more layers of any of the following insulations.

| <u>Base Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|--|---|--|
| AC Foam II, AC Foam III, ENRGY 2, ENRGY-3, PSI-25, Multi-Max FA, Multi-Max FA-3, H-Shield (flat or tapered) Minimum 1.4" thick | N/A | N/A |
| DensDeck Minimum ¼" thick | N/A | N/A |
| Fireguard, Type X gypsum Minimum 5/8" thick | N/A | N/A |
| Toprox Minimum 1" thick | N/A | N/A |
| GAFTEMP Permalite, Fesco Board Minimum ¾" thick | N/A | N/A |

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

| <u>Top Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|---|---|--|
| ACFoam Composite, ENRGY-2 Composite, ENRGY-2 Plus, ENRGY-3 Plus, Thermarroof Composite (flat or tapered) Minimum 1.5" thick | 2, 10, 11, 23, 24, 25, 33, 34, 39, 45 | 1:4 ft ² |
| Toprox Minimum 1" thick | 2, 23 | 1:2.4 ft ² |
| GAFTEMP Permalite, Fesco Board Minimum ¾" thick | 2, 10, 11, 23, 24, 25, 33, 34, 39, 45 | 1:2 ft ² |
| Esgard, High Density Fiberboard, GAFTEMP Fiberboard, Huebert Fiberboard Minimum 1" thick | 2, 10, 11, 23, 24, 25, 33, 34, 39, 45 | 1:4 ft ² |
| DensDeck Minimum ¼" thick | 2, 23, 24, 25, 33 | 1:4 ft ² |
| Fireguard Minimum 5/8" thick | 2, 23, 24, 25, 33 | 1:4 ft ² |



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

Base Sheet: (Optional) One or more plies of Sopra-G, Modified Sopra-G, Sopraglass 40, Sopraglass 100, Sopra-IV, Sopra-VI, Soprabase, GAFGLAS #75, JM Perma Ply 28, GlasPly IV or GlasPly Premier adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional, required if no base sheet used) One or more plies of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene (180, 250 or 350) Flam* or Sopralene (180, 250 or 350) SP, heat welded

Or

One or more plies of Elastophene Sanded, Elastophene Sanded FR, Elastophene HR, Elastophene HR FR, Elastophene 180 Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Sopralene (180, 250 or 350) PS*, Sopralene (180, 250 or 350) Sanded or ASTM D 2178 Type IV or VI ply sheet, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

*Requires heat welded cap membrane.

Membrane: Elastophene SP 2.2mm*, Elastophene SP 3.0mm*, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, Elastophene Flam LS FR GR, Soprastar Flam, Soprastar Flam 180, Sopralene (180, 250, 350) Flam GR, Sopralene (180, 250, 350) Flam FR GR or FR+ GR or Sopralast, heat welded

Or

Elastophene Sanded*, Elastophene Sanded FR*, Elastophene HR*, Elastophene HR FR*, Elastophene 180 Sanded*, Sopralene (180, 250, 350) Sanded*, Elastophene FR GR or FR+ GR, Elastophene LS FR GR, Elastophene GR, Soprastar 180 Sanded, Sopralene (180, 250, 350) GR, or Sopralene (180, 250, 350) FR GR, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base or ply membrane.

*Requires approved Surfacing.

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

Maximum Design Pressnre: -52.5 psf (See General Limitation #9)



Deck Type 7I: Recover
Deck Description: wood/steel/concrete
System Type C(2): All layers of insulation simultaneously attached.

All General and System Limitations apply.

One or more layers of any of the following insulations.

| <u>Base Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|---|---|--|
| AC Foam II, AC Foam III, ENRGY 2, ENRGY-3, PSI-25, Multi-Max FA, Multi-Max FA-3, H-Shield (flat or tapered) Minimum 1.5" thick | N/A | N/A |

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

| <u>Top Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|--|---|--|
| High Density Wood Fiberboard Minimum 1/2" thick | 2, 10, 11, 23, 24, 25, 33, 34, 39, 45 | 1:2 ft ² |

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

Base Sheet: (Optional) One or more plies of Sopra-G, Modified Sopra-G, Sopraglass 40, Sopraglass 100, Sopra-IV, Sopra-VI, Soprabase, GAFGLAS #75, JM Perma Ply 28 or JM GlasPly IV adhered in CIM 162 Adhesive applied at a rate of 1.5 gal./sq.

Ply Sheet: (Optional, required if no base sheet used) One or more plies of Elastophene Sanded, Elastophene Sanded FR, Elastophene HR, Elastophene HR FR, Elastophene 180 Sanded, Sopralene (180, 250 or 350) Sanded or ASTM D 2178 Type IV or VI ply sheet adhered in CIM 162 Adhesive applied at a rate of 1.5 gal./sq.

Membrane: Elastophene Sanded*, Elastophene Sanded FR*, Elastophene HR*, Elastophene HR FR*, Elastophene 180 Sanded*, Sopralene (180, 250, 350) Sanded*, Elastophene FR GR or FR+ GR, Elastophene LS FR GR, Elastophene GR, Soprastar 180 Sanded, Sopralene (180, 250, 350) GR, or Sopralene (180, 250, 350) FR GR adhered in CIM 162 Adhesive applied at a rate of 1.5 gal./sq. to sand surfaced base or ply membrane.
*Requires approved Surfacing.

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

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



Deck Type 7I: Recover
Deck Description: cementitious wood fiber/gypsum
System Type C(3): All layers of insulation simultaneously attached.

All General and System Limitations apply.

One or more layers of any of the following insulations.

| <u>Base Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|---|---|--|
| AC Foam II, AC Foam III, ENRGY 2, ENRGY-3, PSI-25, Multi-Max FA, Multi-Max FA-3, H-Shield (flat or tapered) Minimum 1.5" thick | N/A | N/A |

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

| <u>Top Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|--|---|--|
| High Density Wood Fiber Minimum 1/2" thick | 19 | 1:1.3 ft ² |
| DensDeck Minimum 1/4" thick | 19 | 1:2 ft ² |

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

Base Sheet: (Optional) One or more plies of Sopra-G, Modified Sopra-G, Sopraglass 40, Sopraglass 100, Sopra-IV, Sopra-VI, Soprabase, GAFGLAS #75, Perma Ply 28, JM GlasPly IV or JM GlasPly Premier adhered in CIM 162 Adhesive applied at a rate of 1.5 gal./sq.
 Or
 Prime DensDeck (only) with ASTM D 41 primer followed by one ply of Sopralene Flam Stick*, Sopralene Stick or EPS Flam Stick*, self adhered.
 *Requires heat welded ply or cap membrane.

Ply Sheet: (Optional, required if no base sheet used) One or more plies of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene (180, 250 or 350) Flam*, or Sopralene (180, 250 or 350) SP, heat welded
 Or
 One or more plies of Elastophene Sanded, Elastophene Sanded FR, Elastophene HR, Elastophene HR FR, Elastophene 180 Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Sopralene (180, 250 or 350) PS*, or Sopralene (180, 250 or 350) Sanded or Type IV or Type VI ply sheets adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
 Or
 One ply of Sopralene Flam Stick* or Sopralene Stick self adhered. (Note: Prime sanded surfaced Base Sheet.)
 *Requires heat welded cap membrane.



Membrane: Elastophene SP 2.2mm*, Elastophene SP 3.0mm*, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, Elastophene Flam LS FR GR, Soprastar Flam, Soprastar Flam 180, Sopralene (180, 250, 350) Flam GR, Sopralene (180, 250, 350) Flam FR GR or FR+ GR or Sopralast, heat welded

Or

Elastophene Sanded*, Elastophene Sanded FR*, Elastophene HR*, Elastophene HR FR*, Elastophene 180 Sanded*, Sopralene (180, 250, 350) Sanded*, Elastophene FR GR or FR+ GR, Elastophene LS FR GR, Elastophene GR, Soprastar 180 Sanded, Sopralene (180, 250, 350) GR, or Sopralene (180, 250, 350) FR GR, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base or ply membrane

Or

Colphene FR GR, Colphene GR, Colphene HR FR GR or Soprastar Stick, self adhered. (Note: Prime sanded surfaced Base or Ply Sheet.)

*Requires approved Surfacing.

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

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



Deck Type 4: Lightweight Concrete

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

System Type C(4): All layers of insulation simultaneously attached.

All General and System Limitations apply.

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

| <u>Insulation Layer</u> | <u>Insulation Fasteners (Table 3)</u> | <u>Fastener Density/ft²</u> |
|---|---|--|
| Sopraboard Minimum 1/8" thick | 3 | 1:1.33 ft ² |

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

Primer: (Optional) Elastocol 400, 500, Elastocol 600c or AquaTac applied at a rate of 1 gal/sq, to top surface of any base or ply sheet prior to application of next layer.

Base Sheet: One layer of Elastophene Flam*, Elastophene Flam FR*, Elastophene Flam 2.2 mm*, Elastophene Flam HS FR*, Elastophene Flam HR 3.0 mm*, Elastophene Flam HP*, Elastophene SP 2.2mm, Elastophene SP 3.0mm, Sopralene Flam 180*, Sopralene Flam 180 2.7 mm*, Sopralene 180 SP 3.5 mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350*, Sopralene 350 SP, Colvent TG or Colvent 180 TG, heat welded.

Or

One layer of Elastophene Sanded, Elastophene Sanded FR, Elastophene Sanded 3.0 mm, Elastophene HR, Elastophene HR 3.0 mm, Elastophene HD, Elastophene HP, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 Sanded, Elastophene 180 PS*, Sopralene 180 Sanded, Sopralene 180 Sanded 3.5 mm, Sopralene 180 PS*, Sopralene 250 Sanded, Sopralene 250 Sanded 3.5 mm, Sopralene 250 PS*, Sopralene 250 PS 2.7 mm*, Sopralene 350 Sanded, Sopralene 350 PS*, applied in hot asphalt at 25 lbs/sq.

*Requires heat welded ply or cap membrane.

Ply Sheet: (Optional)

Elastophene Flam*, Elastophene Flam FR*, Elastophene Flam 2.2 mm*, Elastophene Flam HS FR*, Elastophene Flam HR 3.0 mm*, Elastophene Flam HP*, Elastophene SP 2.2mm, Elastophene SP 3.0mm, Sopralene Flam 180*, Sopralene Flam 180 2.7 mm*, Sopralene 180 SP 3.5 mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350*, Sopralene 350 SP, heat welded.

Or

Elastophene Sanded, Elastophene Sanded FR, Elastophene Sanded 3.0 mm, Elastophene HR, Elastophene HR 3.0 mm, Elastophene HD, Elastophene HP, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 Sanded, Elastophene 180 PS*, Sopralene 180 Sanded, Sopralene 180 Sanded 3.5 mm, Sopralene 180 PS*, Sopralene 250 Sanded, Sopralene 250 Sanded 3.5 mm, Sopralene 250 PS*, Sopralene 250 PS 2.7 mm*, Sopralene 350 Sanded, Sopralene 350 PS*, adhered in hot asphalt at 25 lbs/sq. to sand surfaced base membrane.

*Requires heat welded cap membrane.



Membrane:

Elastophene Flam GR, Elastophene Flam UW GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR UW GR, Elastophene Flam FR+ GR, Elastophene Flam FR+ UW GR, Elastophene Flam HR FR GR, Elastophene Flam HS FR GR, Elastophene Flam HS FR UW GR, Elastophene Flam HP FR GR, Sopralene 180 SP 3.5mm*, Soprafix*, Soprastar Flam, Soprastar Flam 180, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR UW GR, Sopralene Flam 180 FR+ GR, Sopralene 250 SP*, Sopralene Flam 250 GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR UW GR, Sopralene Flam 250 FR+ GR, Sopralene Flam 250 FR+ UW GR, Sopralene 350 SP*, Sopralene Flam 350 GR, Sopralene Flam 350 FR GR, Sopralene Flam Jardin, Sopralene Mammoth GR, Sopralast 50 TV Alu, Sopralast 50 TV Alu White, Sopralast Alu, Sopralast TV Copper, Sopralast Copper, Sopralast TV Inox or Sopralast Stainless Steel, heat welded.

Or

One layer of Elastophene Sanded*, Elastophene 180 Sanded*, Elastophene GR, Elastophene UW GR, Elastophene FR GR, Elastophene FR UW GR, Elastophene LS FR GR, Elastophene FR+ GR, Elastophene HD FR GR, Elastophene HR FR GR, Elastophene HS FR GR, Elastophene HS FR UW GR, Elastophene HP FR GR, Sopralene 180 Sanded*, Soprastar 180 Sanded, Sopralene 180 GR, Sopralene 180 FR GR, Sopralene 180 FR UW GR, Sopralene 250 Sanded*, Sopralene 250 GR, Sopralene 250 FR GR, Sopralene 250 FR UW GR, Sopralene 350 Sanded*, Sopralene 350 GR or Sopralene 350 FR GR, adhered in hot asphalt at 25 lbs/sq. to sand surfaced base or ply membranes.

*Requires approved Surfacing.

Surfacing:

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

Maximum Design Pressure:

-82.5 psf (See General Limitation #7.)



Deck Type 7I: Recover

Deck Description: steel

System Type C(5): All layers of insulation simultaneously attached.

All General and System Limitations apply.

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

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

| <u>Base Insulation Layer</u> | <u>Insulation Fasteners (Table 3)</u> | <u>Fastener Density/ft²</u> |
|--|---|--|
| Any approved polyisocyanurate or polystyrene Minimum 1" thick | N/A | N/A |

| <u>Top Insulation Layer</u> | <u>Insulation Fasteners (Table 3)</u> | <u>Fastener Density/ft²</u> |
|-----------------------------------|---|--|
| Soprapboard Minimum 1/8" thick | 2, 10, 23, 46 (minimum #14) | 1:2 |

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Refer to Roofing Application Standard RAS 117 for insulation attachment.

Primer: (Optional) Elastocol 400, 500, Elastocol 600c or AquaTac applied at a rate of 1 gal/sq, to top surface of any insulation, base or ply sheet prior to application of next layer

Base Sheet: One or more plies of Sopra-G, Modified Sopra-G or any approved ASDTM D4601 Type II base sheet, Elastophene Sanded, Elastophene Sanded 3.0, Elastophene Sanded FR, Elastophene HS FR, Elastophene PS 2.2*, Elastophene PS 3.0*, Elastophene HD, Elastophene 180 Sanded, Elastophene 180 PS*, Elastophene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded 3.5, Sopralene 180 PS 3.5*, Sopralene 250 Sanded, Sopralene 250 PS*, Sopralene 250 Sanded 4.0, Sopralene 350 Sanded, Sopralene 350 PS*, Elastophene HP, adhered in hot asphalt at 25 lbs/sq.

Or

Elastophene Flam*, Elastophene Flam FR*, Elastophene Flam 2.2 mm*, Elastophene Flam HS FR*, Elastophene Flam HP*, Elastophene SP 2.2mm, Elastophene SP 3.0mm, Sopralene Flam 180*, Sopralene Flam 180 2.7 mm*, Sopralene 180 SP 3.5 mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350*, Sopralene 350 SP, heat welded.

*Requires heat welded ply or cap membrane.



Ply Sheet:

(Optional)

EPS Flam Stick*, EPS Flam Stick FR*, Sopralene Stick or Sopralene Flam Stick*, self-adhered to primed sand surfaced base membrane.

One or more plies of Sopra-IV, Sopra-VI or any approved ASTM D2178 Type IV or VI ply sheet, Elastophene Sanded, Elastophene Sanded 3.0, Elastophene Sanded FR, Elastophene HS FR, Elastophene PS 2.2*, Elastophene PS 3.0*, Elastophene HD, Elastophene 180 Sanded, Elastophene 180 PS*, Elastophene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded 3.5, Sopralene 180 PS 3.5*, Sopralene 250 Sanded, Sopralene 250 PS*, Sopralene 250 Sanded 4.0, Sopralene 350 Sanded, Sopralene 350 PS*, Elastophene HP, adhered in hot asphalt at 25 lbs/sq. to sand surfaced base membrane.

Or

Elastophene Flam*, Elastophene Flam FR*, Elastophene Flam 2.2 mm*, Elastophene Flam HS FR*, Elastophene Flam HP*, Elastophene SP 2.2mm, Elastophene SP 3.0mm, Sopralene Flam 180*, Sopralene Flam 180 2.7 mm*, Sopralene 180 SP 3.5 mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350*, Sopralene 350 SP, heat welded.

*Requires heat welded cap membrane.

Membrane:

Colphene GR, Colphene FR GR, Colphene HR FR GR, self-adhered to sand surfaced base or ply membrane

Or

Soprastar Stick, self-adhered to Elastocol 600c primed sand surfaced base or ply membrane

or

Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Elastophene Flam HS FR GR, Elastophene Flam HP FR GR, Soprastar Flam, Soprastar Flam 180, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralene Flam 350 GR, Sopralene Flam 350 FR GR, Sopralast 50 TV Alu, Sopralast 50 TV Alu White, Sopralast Alu, Sopralast TV Copper, Sopralast Copper, Sopralast TV Inox or Sopralast Stainless Steel, heat welded.

Or

Elastophene GR, Elastophene FR GR, Elastophene LS FR GR, Elastophene FR+ GR, Elastophene HD FR GR, Elastophene HR FR GR, Elastophene HS FR GR, Elastophene HP FR GR, Soprastar 180 Sanded, Sopralene 180 GR, Sopralene 180 FR GR, Sopralene 250 GR, Sopralene 250 FR GR, Sopralene 350 GR or Sopralene 350 FR GR, adhered in hot asphalt at 25 lbs/sq. to sand surfaced base or ply membrane.

Surfacing:

Surfacing is Optional on granular surfaced field cap membranes.

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

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

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

Maximum Design

Pressure:

-60 psf (See General Limitation #7.)



Deck Type 7I: Recover
Deck Description: steel
System Type C(6): All layers of insulation simultaneously attached.
All General and System Limitations apply.

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

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

| <u>Base Insulation Layer</u> | <u>Insulation Fasteners (Table 3)</u> | <u>Fastener Density/ft²</u> |
|--|---|--|
| Any approved polyisocyanurate or polystyrene | | |
| Minimum 1" thick | N/A | N/A |
| <u>Top Insulation Layer</u> | <u>Insulation Fasteners (Table 3)</u> | <u>Fastener Density/ft²</u> |
| Sopraboard | | |
| Minimum 1/8" thick | 2, 10, 23, 46 (minimum #14) | 1:2 |

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Refer to Roofing Application Standard RAS 117 for insulation attachment.

Primer: (Optional) Elastocol 400, 500, Elastocol 600c or AquaTac applied at a rate of 1 gal/sq, to top surface of any insulation, base or ply sheet prior to application of next layer

Base Sheet: One or more plies of Sopralene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded 3.5, Sopralene 180 PS 3.5*, Sopralene 250 Sanded, Sopralene 250 PS*, Sopralene 250 Sanded 4.0, Sopralene 350 Sanded, Sopralene 350 PS*, adhered in hot asphalt at 25 lbs/sq.
 Or
 Sopralene Flam 180*, Sopralene Flam 180 2.7 mm*, Sopralene 180 SP 3.5 mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350*, Sopralene 350 SP, heat welded.
 *Requires heat welded ply or cap membrane.

Ply Sheet: (Optional)
 Sopralene Stick or Sopralene Flam Stick*, self-adhered to primed sand surfaced base membrane.
 Sopralene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded 3.5, Sopralene 180 PS 3.5*, Sopralene 250 Sanded, Sopralene 250 PS*, Sopralene 250 Sanded 4.0, Sopralene 350 Sanded, Sopralene 350 PS*, adhered in hot asphalt at 25 lbs/sq. to sand surfaced base membrane.
 Or
 Sopralene Flam 180*, Sopralene Flam 180 2.7 mm*, Sopralene 180 SP 3.5 mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350*, Sopralene 350 SP, heat welded.
 *Requires heat welded cap membrane.



Membrane: SopraStar Flam 180, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Sopralene Flam 350 GR, Sopralene Flam 350 FR GR, heat welded.
Or
SopraStar 180 Sanded, Sopralene 180 GR, Sopralene 180 FR GR, Sopralene 250 GR, Sopralene 250 FR GR, Sopralene 350 GR or Sopralene 350 FR GR, adhered in hot asphalt at 25 lbs/sq. to sand surfaced base or ply membrane.

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

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



Deck Type 7I: Recover
Deck Description: wood/steel/concrete/lightweight concrete/cementitious wood fiber/gypsum
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.

| <u>Base Insulation Layer</u> | <u>Insulation Fasteners (Table 3)</u> | <u>Fastener Density/ft²</u> |
|---|---|--|
| AC Foam II, AC Foam III, ENRGY-2, ENRGY-3, PSI-25, Multi-Max FA, Multi-Max FA-3, H-Shield (flat or tapered) Minimum 1.4" thick | N/A | N/A |
| <u>Base or Top Insulation Layer</u> | <u>Insulation Fasteners (Table 3)</u> | <u>Fastener Density/ft²</u> |
| Toprox Minimum 1" thick | N/A | N/A |
| <u>(Optional) Top Insulation Layer</u> | <u>Insulation Fasteners (Table 3)</u> | <u>Fastener Density/ft²</u> |
| BP High Strength, FM-90 Traffic Top/High Density, GAFTEMP High Density, Roof Insulation Board, High Density Fiberboard, Fiber Base HD1, HD6, Structodek Minimum 1/2" thick | N/A | N/A |
| GAFTEMP Permalite, Fesco Board Minimum 3/4" thick | N/A | N/A |
| DensDeck, Securock Minimum 1/4" thick | N/A | N/A |
| Sopraboard Minimum 1/8" thick | N/A | N/A |
| Fireguard, Type X gypsum Minimum 5/8" 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.

- Base Sheet:** One ply of Sopra-G, Modified Sopra-G, Sopraglass 100, Soprabase, GAFGLAS #75 or JM Perma-Ply 28 fastened to the deck as described below:
- Fastening #1:** (*wood, steel, concrete*) Attach base sheet using SFS #14 Dekfast with Hex Plates or SFS Insulfixx S or HD Insulfixx S spaced 9" o.c. in a 4" lap and 12" o.c. in two staggered rows in the center of the sheet.
- Fastening #2:** (*lightweight concrete, cementitious wood fiber, gypsum*) Attach base sheet using TPR fasteners with SFS Insulfixx S Plates spaced 9" o.c. in a 4" lap and 12" o.c. in two staggered rows in the center of the sheet.



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

Ply Sheet: One or more plies of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene (180, 250 or 350) Flam* or Sopralene (180, 250 or 350) SP, heat welded

Or

One or more plies of Elastophene Sanded, Elastophene Sanded FR, Elastophene HR, Elastophene HR FR, Elastophene 180 Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Sopralene (180, 250 or 350) PS*, Sopralene (180, 250 or 350) Sanded or ASTM D 2178 Type IV or VI ply sheet, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base membrane.

*Requires heat welded cap membrane.

Membrane: Elastophene SP 2.2mm*, Elastophene SP 3.0mm*, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, Elastophene Flam LS FR GR, Soprastar Flam, Soprastar Flam 180, Sopralene (180, 250, 350) Flam GR, Sopralene (180, 250, 350) Flam FR GR or FR+ GR, or Sopralast, heat welded

Or

Elastophene Sanded*, Elastophene Sanded FR*, Elastophene HR*, Elastophene HR FR*, Elastophene 180 Sanded*, Sopralene (180, 250, 350) Sanded*, Elastophene FR GR or FR+ GR, Elastophene LS FR GR, Elastophene GR, Soprastar 180 Sanded, Sopralene (180, 250, 350) GR, or Sopralene (180, 250, 350) FR GR, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced ply membrane.

*Requires approved Surfacing.

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

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



Deck Type 7I: Recover
Deck Description: wood/steel/concrete/lightweight concrete/cementitious wood fiber/gypsum
System Type D(2): All layers of insulation and base sheet simultaneously attached.

All General and System Limitations apply.
 One or more layers of any of the following insulations.

| <u>Base Insulation Layer</u> | <u>Insulation Fasteners (Table 3)</u> | <u>Fastener Density/ft²</u> |
|--|---|--|
| AC Foam II, AC Foam III, ENRGY-2, ENRGY-3, Multi-Max FA, Multi-Max FA-3, H-Shield (flat or tapered) Minimum 1.4" thick | N/A | N/A |
| Toprox Minimum 2" thick | N/A | N/A |
| <u>(Optional) Top Insulation Layer</u> | <u>Insulation Fasteners (Table 3)</u> | <u>Fastener Density/ft²</u> |
| BP High Strength, FM-90 Traffic Top/High Density, GAFTEMP High Density, Roof Insulation Board, High Density Fiberboard, Fiber Base HD1, HD6, Structodek Minimum 1/2" thick | N/A | N/A |
| GAFTEMP Permalite, Fesco Board Minimum 3/4" thick | N/A | N/A |
| DensDeck, Securock Minimum 1/4" thick | N/A | N/A |
| Sopraboard Minimum 1/8" thick | N/A | N/A |
| Fireguard, Type X gypsum Minimum 5/8" 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.

Base Sheet: One ply of Soprafix, Soprafix [S]*, Soprafix [X]*, Soprafix [H], Sopralene Flam 180*, Sopralene Flam 250* or Elastophene Flam 180 2.5 mm*, fastened to the deck as described below:

*Requires heat welded ply or cap membrane.

Fastening #1: (wood, steel, concrete) Attach base sheet using HD Insulfixx or SOPREMA #14 fasteners with Soprafix 2" Round Barbed Plates spaced 18" o.c. in a 4" wide heat welded or bituminous taped seam.
(Maximum Design Pressure -45 psf See General Limitation #9)

Fastening #2: (wood, steel, concrete) Attach base sheet using HD Insulfixx S fasteners spaced 24" o.c. in the center of the sheet. Laps are heat welded. Fastener rows are stripped in with a 7" wide section of heat welded base sheet membrane.
(Maximum Design Pressure -45 psf See General Limitation #9)



- Fastening #3:** (steel) (Excludes use of Elastophene Flam 180 2.5 mm as base sheet.) Attach base sheet using SFS #15 High Load Fasteners or Soprafix[X]-EL fasteners and 70 mm Round Plates or Soprafix 2" Round Barbed Plates spaced 12" o.c. in a 5" wide heat welded lap.
(Maximum Design Pressure –75 psf See General Limitation #9)
- Fastening #4:** (lightweight concrete, cementitious wood fiber, gypsum) Attach base sheet using TPR fasteners with Soprafix 2" Round Barbed Plates spaced 18" o.c. in a 4" wide heat welded or bituminous taped seam.
(Maximum Design Pressure –45 psf See General Limitation #9)
- Fastening #5:** (lightweight concrete, cementitious wood fiber, gypsum) Attach base sheet using TPR fasteners with Soprafix 2" Round Barbed Plates spaced 24" o.c. in the center of the sheet. Laps are heat welded. Fastener rows are stripped in with a 7" wide section of heat welded base sheet membrane.
(Maximum Design Pressure –45 psf) See General Limitation #9)
- Fastening #6:** (gypsum) (Excludes the use of Elastophene Flam 180 2.5 mm as base sheet) Attach base sheet using ES Twin Loc-Nails spaced 9' o.c. in a 5" lap and 9" o.c. in one row in the center of the sheet. Laps are heat welded. Fastener rows are stripped in with an 8" wide section of heat welded base sheet membrane.
(Maximum Design Pressure –60 psf) See General Limitation #7)
- Fastening #7:** (steel, concrete) (Excludes the use of Elastophene Flam 180 2.5 mm as base sheet.) Attach base sheet using #14 Soprafix Fasteners and Soprafix 2" Round Barbed Plates spaced 12" o.c. in a 5" wide heat welded lap.
(Maximum Design Pressure –60 psf – See General Limitation #7.)

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

Ply Sheet: (Optional) One ply of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene (180, 250 or 350) Flam*, or Sopralene (180, 250 or 350) SP, heat welded
Or
One ply of Sopralene Flam Stick* or Sopralene Stick, self adhered. (Note: Prime sanded surfaced Base Sheet.)
*Requires heat welded cap membrane.

Membrane: Elastophene SP 2.2mm*, Elastophene SP 3.0mm*, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, Elastophene Flam LS FR GR, Soprastar Flam, Soprastar Flam 180, Sopralene (180, 250, 350) Flam GR, Sopralene (180, 250, 350) Flam FR GR or FR+ GR, UNILAY or Sopralast, heat welded
Or
Colphene FR GR, Colphene GR, or Colphene HR FR GR, self adhered. (Note: Prime sanded surfaced Base or Ply Sheet.)
or
Soprastar Stick, self-adhered to Elastocol 600c primed sand surfaced base or ply membrane
*Require approved Surfacing.

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

Maximum Design Pressure: See Fastening Requirements above.



Deck Type 7I: Recover
Deck Description: Steel/Concrete
System Type D(3): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply.

Insulation Layer

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

Any listed insulation listed herein, flat or tapered.

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

Base Sheet: None

Ply Sheet: None

Membrane: One ply of UNILAY membrane fastened through the insulation to the deck using Soprafix [X]-EL fastener and UNILAY plates spaced 12" o.c. in a 6" wide lap. The side lap fastener row is encapsulated in the heat welded lap.

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

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



Deck Type 7: Recover
Deck Description: lightweight concrete/cementitious wood fiber/gypsum
System Type D(4): Membrane fastened over preliminary fastened insulation.

All General and System Limitations apply.

| <u>Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|---|---|--|
| Any Approved Polyisocyanurate insulation listed herein, flat or tapered. Minimum 1.5" thick | Approved Fastener for Deck | 1:6.4 |

Primer: (Optional) Elastocol 400, 500, Elastocol 600c or AquaTac applied at a rate of 1 gal/sq, to top surface of any insulation, base or ply sheet prior to application of next layer

Base Layer: One layer Soprafix, Soprafix (X), Sopralene Flam 180* or Sopralene Flam 250*, mechanically attached with minimum 2.7" Twin-loc nails spaced 9" o.c. within the 4" wide lap and 9" o.c. in one row centered in the field. Center row is covered with an 8" wide strip of Soprafix, Soprafix (X)*, Sopralene Flam 180* or Sopralene Flam 250*.

*Requires heat welded ply or cap membrane.

Ply Sheet: (Optional)
 One or more layers of Sopralene Flam Stick*, EPS Flam Stick* or Sopralene Stick, self-adhered to sand surfaced base membrane.

Or

Elastophene Flam*, Elastophene Flam FR*, Elastophene Flam 2.2 mm*, Elastophene Flam HS FR*, Elastophene Flam HR 3.0 mm*, Elastophene Flam HP*, Elastophene SP 2.2mm, Elastophene SP 3.0mm, Sopralene Flam 180*, Sopralene Flam 180 2.7 mm*, Sopralene 180 SP 3.5 mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350*, Sopralene 350 SP, heat welded.

Or

Elastophene Sanded, Elastophene Sanded FR, Elastophene Sanded 3.0 mm, Elastophene HR, Elastophene HR 3.0 mm, Elastophene HD, Elastophene HP, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 Sanded, Elastophene 180 PS*, Sopralene 180 Sanded, Sopralene 180 Sanded 3.5 mm, Sopralene 180 PS*, Sopralene 250 Sanded, Sopralene 250 Sanded 3.5 mm, Sopralene 250 PS*, Sopralene 250 PS 2.7 mm*, Sopralene 350 Sanded, Sopralene 350 PS*, adhered in hot asphalt at 25 lbs/sq. or applied in FM Adhesive or FM Adhesive (VOC) at a rate of 1.5 gal/sq. to sand surfaced base membrane.

*Requires heat welded cap membrane.



Membrane:

One layer of Elastophene Flam GR, Elastophene Flam UW GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR UW GR, Elastophene Flam FR+ GR, Elastophene Flam FR+ UW GR, Elastophene Flam HR FR GR, Elastophene Flam HS FR GR, Elastophene Flam HS FR UW GR, Elastophene Flam HP FR GR, Sopralene 180 SP 3.5mm*, Soprafix*, Soprastar Flam, Soprastar Flam 180, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR UW GR, Sopralene Flam 180 FR+ GR, Sopralene 250 SP*, Sopralene Flam 250 GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR UW GR, Sopralene Flam 250 FR+ GR, Sopralene Flam 250 FR+ UW GR, Sopralene 350 SP*, Sopralene Flam 350 GR, Sopralene Flam 350 FR GR, Sopralene Flam Jardin, Sopralene Mammoth GR, Sopralast 50 TV Alu, Sopralast 50 TV Alu White, Sopralast Alu, Sopralast TV Copper, Sopralast Copper, Sopralast TV Inox or Sopralast Stainless Steel, heat welded.

*Requires approved Surfacing.

Surfacing:

Surfacing is Optional on granular surfaced field cap membranes.

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

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

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

Maximum Design Pressure:

-60 psf (See General Limitation #7.)



Deck Type 7I: Recover
Deck Description: lightweight concrete/cementitious wood fiber/gypsum
System Type D(5): Membrane fastened over preliminary fastened insulation.

All General and System Limitations apply.

| <u>Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|--|---|--|
| One or more layers of any approved insulation and/or coverboard. | 14 | 1:6.4 |

Primer: (Optional) Elastocol 400, 500, Elastocol 600c or AquaTac applied at a rate of 1 gal/sq. to top surface of any insulation, base or ply sheet prior to application of next layer

Base Layer: One layer Soprafix, Soprafix (X)*, Sopralene Flam 180*, or Sopralene Flam 250*, mechanically attached with Twin-Loc Nails spaced 6" o.c. through OMG Polymer Batten Strip-TL, ES Products Batten Bar-TL, Tru-Fast Twin Loc Batten Bar or Dekfast Coiled Batten Strip, placed in the lap and in one row centered in the field. Center fastener row is covered with an 8" wide strip of Sopralene Flam Stick*, EPS Flam Stick*, Sopralene Stick, self-adhered.
 Or
 Elastophene Flam*, Elastophene Flam FR*, Elastophene Flam 2.2 mm*, Elastophene Flam HS FR*, Elastophene Flam HR 3.0 mm*, Elastophene Flam HP*, Elastophene SP 2.2mm, Elastophene SP 3.0mm, Sopralene Flam 180*, Sopralene Flam 180 2.7 mm*, Sopralene 180 SP 3.5 mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350*, Sopralene 350 SP, heat welded.
 *Requires heat welded ply or cap membrane.

Ply Sheet: (Optional) One or more layers of Elastophene Flam HP*, Sopralene Flam 180*, Sopralene Flam 180 2.7mm*, Sopralene Flam 250* or Sopralene Flam 350*, heat welded.
 *Requires heat welded cap membrane.

Membrane: Soprastar Flam, Soprastar Flam 180, Elastophene Flam HP FR GR, Sopralene 180 SP 3.5mm*, Soprafix*, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR UW GR, Sopralene Flam 180 FR+ GR, Sopralene 250 SP*, Sopralene Flam 250 GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR UW GR, Sopralene Flam 250 FR+ GR, Sopralene Flam 250 FR+ UW GR, Sopralene 350 SP*, Sopralene Flam 350 GR, Sopralene Flam 350 FR GR, heat welded.
 Or
 Soprastar Stick, self-adhered to Elastocol 600c primed sand surfaced base or ply membrane.
 *Requires approved Surfacing.

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

Maximum Design Pressure: -52.5 psf (with Soprastar Stick as a cap membrane) (See General Limitation #7)
 -82.5 psf (with all other cap membranes) (See General Limitation #7.)



Deck Type 7I: Recover
Deck Description: lightweight concrete/cementitious wood fiber/gypsum
System Type D(6): Membrane fastened over preliminarily secured insulation

All General and System Limitations apply.

| <u>Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|---|---|--|
| One or more layers of any approved insulation and/or coverboard. | 14 | 1:6.4 |

Primer: (Optional) Elastocol 400, 500, Elastocol 600c or AquaTac applied at a rate of 1 gal/sq, to top surface of any insulation, base or ply sheet prior to application of next layer

Base Layer: One layer Soprafix , Soprafix (X) or Soprafix-e, mechanically attached with Twin-Loc Nails spaced 6" o.c. through OMG Polymer Batten Strip-TL, ES Products Batten Bar-TL, Tru-Fast Twin Loc Batten Bar or Dekfast Coiled Batten Strip, placed in the lap and in one row centered in the field. Center fastener row is covered with an 8" wide strip of Sopralene Flam Stick*, EPS Flam Stick*, Sopralene Stick, self-adhered.
 Or
 Elastophene Flam*, Elastophene Flam FR*, Elastophene Flam 2.2 mm*, Elastophene Flam HS FR*, Elastophene Flam HR 3.0 mm*, Elastophene Flam HP*, Elastophene SP 2.2mm, Elastophene SP 3.0mm, Sopralene Flam 180*, Sopralene Flam 180 2.7 mm*, Sopralene 180 SP 3.5 mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350*, Sopralene 350 SP, heat welded.
 *Requires heat welded ply or cap membrane.

Ply Sheet: One or more layers of Sopralene Flam Stick*, EPS Flam Stick*, Sopralene Stick, self-adhered to sand surfaced base membrane.

(Optional)

Or
 Elastophene Flam*, Elastophene Flam FR*, Elastophene Flam 2.2 mm*, Elastophene Flam HS FR*, Elastophene Flam HR 3.0 mm*, Elastophene Flam HP*, Elastophene SP 2.2mm, Elastophene SP 3.0mm, Sopralene Flam 180*, Sopralene Flam 180 2.7 mm*, Sopralene 180 SP 3.5 mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350*, Sopralene 350 SP, heat welded.
 Or
 Elastophene Sanded, Elastophene Sanded FR, Elastophene Sanded 3.0 mm, Elastophene HR, Elastophene HR 3.0 mm, Elastophene HS, Elastophene HD, Elastophene HP, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 Sanded, Elastophene 180 PS*, Sopralene 180 Sanded, Sopralene 180 Sanded 3.5 mm, Sopralene 180 PS*, Sopralene 250 Sanded, Sopralene 250 Sanded 3.5 mm, Sopralene 250 PS*, Sopralene 250 PS 2.7 mm, Sopralene 350 Sanded, Sopralene 350 PS*, adhered in hot asphalt at 25 lbs/sq. or applied in FM Adhesive or FM Adhesive (VOC) at a rate of 1.5 gal/sq. to sand surfaced base membrane.

*Requires heat welded cap membrane.



Membrane:

One layer of Colphene HR FR GR, Colphene FR GR, Colphene GR, Sopralene Stick*, Soprastar Stick or Colphene SA GR, self-adhered to sand surfaced base or ply membrane.

Or

Elastophene Flam GR, Elastophene Flam UW GR, Elastophene Flam FR GR, Elastophene Flam FR UW GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Elastophene Flam FR+ UW GR, Elastophene Flam HR FR GR, Elastophene Flam HS FR GR, Elastophene Flam HS FR UW GR, Elastophene Flam HP FR GR, Sopralene 180 SP 3.5mm*, Soprafix*, Soprastar Flam, Soprastar Flam 180, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR UW GR, Sopralene Flam 180 FR+ GR, Sopralene 250 SP*, Sopralene Flam 250 GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR UW GR, Sopralene Flam 250 FR+ GR, Sopralene Flam 250 FR+ UW GR, Sopralene 350 SP*, Sopralene Flam 350 GR, Sopralene Flam 350 FR GR, Sopralene Flam Jardin, Sopralene Mammoth GR, Sopralast 50 TV Alu, Sopralast 50 TV Alu White, Sopralast Alu, Sopralast TV Copper, Sopralast Copper, Sopralast TV Inox or Sopralast Stainless Steel, heat welded.

Or

One layer of Elastophene Sanded*, Elastophene 180 Sanded*, Elastophene GR, Elastophene UW GR, Elastophene FR GR, Elastophene FR UW GR, Elastophene LS FR GR, Elastophene FR+ GR, Elastophene HD FR GR, Elastophene HR FR GR, Elastophene HS FR GR, Elastophene HS FR UW GR, Elastophene HP FR GR, Sopralene 180 Sanded*, Soprastar 180 Sanded, Sopralene 180 GR, Sopralene 180 FR GR, Sopralene 180 FR UW GR, Sopralene 250 Sanded*, Sopralene 250 GR, Sopralene 250 FR GR, Sopralene 250 FR UW GR, Sopralene 350 Sanded*, Sopralene 350 GR or Sopralene 350 FR GR, adhered in hot asphalt at 25 lbs/sq. or applied in FM Adhesive or FM Adhesive (VOC) at a rate of 1.5 gal/sq. to sand surfaced base or ply membrane.

*Requires approved Surfacing.

Surfacing:

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

Maximum Design Pressure:

-45 psf (See General Limitation #7.)



Deck Type 7I: Recover
Deck Description: wood/steel/concrete/lightweight concrete/cementitious wood fiber/gypsum
System Type D(7): Membrane fastened over preliminarily secured insulation

All General and System Limitations apply.

| | | |
|---|---|--|
| <u>Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
| One or more layers of any approved insulation and/or coverboard. | | |
| | Approved Fastener for Deck | 1:6.4 |

Base Sheet: Soprafix mechanically attached with OMG Polymer Batten Strip and Large Head #15 Roofgrip fasteners, Tru-Fast BB-18 Batten Bar and Tru-Fast EHD fasteners, Soprema Soprafix MBB-R and Soprema #15 fasteners or SFS Intec Dekfast Batten Bar and #15 Dekfast fasteners, spaced 12" o.c. in the min. 4" heat welded lap.
 *Requires heat welded ply or cap membrane.

Ply Sheet:
(Optional) One or more layers of Sopralene Flam 180*, Sopralene Flam 180 2.7 mm*, Sopralene 180 SP 3.5 mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350*, Sopralene 350 SP, heat welded.
 *Requires heat welded cap membrane.

Membrane: SopraStar Flam, SopraStar Flam 180, Sopralene 180 SP 3.5mm*, Soprafix*, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR UW GR, Sopralene Flam 180 FR+ GR, Sopralene 250 SP*, Sopralene Flam 250 GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR UW GR, Sopralene Flam 250 FR+ GR, Sopralene Flam 250 FR+ UW GR, Sopralene 350 SP*, Sopralene Flam 350 GR, Sopralene Flam 350 FR GR, heat welded.
 Or
 SopraStar Stick, self-adhered to Elastocol 600c primed sand surfaced base or ply membrane.
 *Requires approved Surfacing.

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

Maximum Design Pressure: -52.5 psf (with SopraStar Stick as cap membrane) (See General Limitation #7)
 -105 psf (with all other cap membranes) (See General Limitation #7.)



Deck Type 7I: Recover
Deck Description: wood/steel/concrete/lightweight concrete/cementitious wood fiber/gypsum
System Type D(8): Membrane fastened over preliminarily secured insulation

All General and System Limitations apply.

| <u>Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|---|---|--|
| One or more layers of any approved insulation and/or coverboard. | Approved Fastener for Deck | 1:6.4 |

Base Sheet: Soprafix, mechanically attached with OMG Polymer Batten Strip and OMG Large Head #15 Roofgrip fasteners, Tru-Fast BB-18 Batten Bar and Tru-Fast EHD fasteners, Soprema Soprafix MBB-R and Soprema #15 fasteners or SFS Intec Dekfast Batten Bar and #15 Dekfast fasteners, spaced 6" o.c. in every other minimum 4" heat welded lap.
 Intermediate, non-fastened laps are minimum 3" wide and heat welded.
 *Requires heat welded ply or cap membrane.

Ply Sheet: (Optional)
 One or more layers of Sopralene Flam 180*, Sopralene Flam 180 2.7 mm*, Sopralene 180 SP 3.5 mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350*, Sopralene 350 SP, heat welded.
 *Requires heat welded cap membrane.

Membrane: Soprapstar Flam, Soprapstar Flam 180, Sopralene 180 SP 3.5mm*, Soprafix*, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR UW GR, Sopralene Flam 180 FR+ GR, Sopralene 250 SP*, Sopralene Flam 250 GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR UW GR, Sopralene Flam 250 FR+ GR, Sopralene Flam 250 FR+ UW GR, Sopralene 350 SP*, Sopralene Flam 350 GR, Sopralene Flam 350 FR GR, heat welded.
 Or
 Soprapstar Stick, self-adhered to Elastocol 600c primed sand surfaced base or ply membrane
 *Requires approved Surfacing.

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

Maximum Design Pressure: -52.5 psf (with Soprapstar Stick as cap membrane) (See General Limitation #7)
 -120 psf (with all other cap membranes) (See General Limitation #7.)



Deck Type 7I: Recover
Deck Description: wood/steel/concrete/lightweight concrete/cementitious wood fiber/gypsum
System Type D(9): Membrane fastened over preliminarily secured insulation

All General and System Limitations apply.

Insulation Layer

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

One or more layers of any approved insulation and/or coverboard.

Approved Fastener for Deck 1:6.4

Base Sheet: Soprafix, Soprafix (X) or Soprafix-e, mechanically attached with OMG Polymer Batten Strip and OMG Large Head #15 Roofgrip fasteners, Tru-Fast BB-18 Batten Bar and Tru-Fast EHD fasteners, Soprema Soprafix MBB-R and Soprema #15 fasteners or SFS Intec Dekfast Batten Bar and #15 Dekfast fasteners, spaced 12" o.c. in the min. 5" lap.

*Requires heat welded ply or cap membrane.

Ply Sheet: (Optional)

One or more layers of Sopralene Flam 180*, Sopralene Flam 180 2.7 mm*, Sopralene 180 SP 3.5 mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350*, Sopralene 350 SP, heat welded.

*Requires heat welded cap membrane.

Membrane: SopraStar Flam, SopraStar Flam 180, Sopralene 180 SP 3.5mm*, Soprafix*, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR UW GR, Sopralene Flam 180 FR+ GR, Sopralene 250 SP*, Sopralene Flam 250 GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR UW GR, Sopralene Flam 250 FR+ GR, Sopralene Flam 250 FR+ UW GR, Sopralene 350 SP*, Sopralene Flam 350 GR, Sopralene Flam 350 FR GR, heat welded.

Or

SopraStar Stick, self-adhered to Elastocol 600c primed sand surfaced base or ply membrane

*Requires approved Surfacing.

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

Maximum Design Pressure: -52.5 psf (with SopraStar Stick as cap membrane)(See General Limitation #7)
-97.5 psf (with all other cap membranes) (See General Limitation #7.)



Deck Type 7I: Recover
Deck Description: wood/steel/concrete/lightweight concrete/cementitious wood fiber/gypsum
System Type D(10): All layers of insulation and base sheet simultaneously attached

All General and System Limitations apply.

| <u>Insulation Layer</u> | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|---|---|--|
| ACFoam II, ACFoam III (flat or tapered) Minimum 1.5" thick | Approved Fastener for Deck | 1:6.4 |
| Base Sheet: | Soprafix, Soprafix (X) or Soprafix-e, mechanically attached with OMG Polymer Batten Strip and OMG Large Head #15 Roofgrip fasteners, Tru-Fast BB-18 or Tru-Fast BB-18-R and Tru-Fast EHD fasteners, spaced 12" o.c. in the min. 5" lap. *Requires heat welded ply or cap membrane. | |
| Ply Sheet: | (Optional) One or more layers of Sopralene Flam 180*, Sopralene Flam 180 2.7 mm*, Sopralene 180 SP 3.5 mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350*, Sopralene 350 SP, heat welded. *Requires heat welded cap membrane. | |
| Membrane: | Soprastar Flam, Soprastar Flam 180, Sopralene 180 SP 3.5mm*, Soprafix*, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR UW GR, Sopralene Flam 180 FR+ GR, Sopralene 250 SP*, Sopralene Flam 250 GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR UW GR, Sopralene Flam 250 FR+ GR, Sopralene Flam 250 FR+ UW GR, Sopralene 350 SP*, Sopralene Flam 350 GR, Sopralene Flam 350 FR GR, heat welded. Or Soprastar Stick, self-adhered to Elastocol 600c primed sand surfaced base or ply membrane *Requires approved Surfacing. | |
| Surfacing: | Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. | |
| Maximum Design Pressure: | -52.5 psf (with Soprastar Stick as cap membrane) (See General Limitation #7) -75 psf (with all other cap membranes) (See General Limitation #7.) | |



Deck Type 7I: Recover

Deck Description: Steel/concrete

System Type D(11): 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.

| <u>Insulation Layer</u> | <u>Insulation Fasteners (Table 3)</u> | <u>Fastener Density/ft²</u> |
|---|---|--|
| AC Foam II, H-Shield, M-Shield, Hy-Therm AP (flat or tapered) Minimum 1.5" thick | N/A | N/A |
| DensDeck, Securock Minimum 0.25" thick | N/A | N/A |
| Sopraboard Minimum 1/8" thick | N/A | N/A |
| ConPearl, GAFTEMP Permalite, EnergyGuard Perlite Roof Insulation, Fesco Board, Perlite 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.

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

Fastening #1: Attach base sheet using Tru-Fast BB-18-R Batten Bar with Tru-Fast HD Fasteners spaced 12" o.c. in the minimum 5" wide lap.

Ply Sheet: (Optional)
One or more plies of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene (180, 250 or 350) Flam*, or Sopralene (180, 250 or 350) SP heat welded
*Requires heat welded cap membrane.

Membrane: Elastophene SP 2.2mm*, Elastophene SP 3.0mm*, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, Elastophene Flam LS FR GR, Soprapstar Flam, Soprapstar Flam 180, Sopralene (180, 250, 350) Flam GR, Sopralene (180, 250, 350) Flam FR GR or FR+ GR or Sopralast, heat welded
*Requires approved Surfacing.

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

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



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Deck Type 7I: Recover

Deck Description: Steel/concrete

System Type D(12): 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.

| <u>Insulation Layer</u> | <u>Insulation Fasteners</u> (Table 3) | <u>Fastener Density/ft²</u> |
|--|--|--|
| AC Foam II (flat or tapered) Minimum 1.5" thick | N/A | N/A |
| DensDeck, Securock Minimum 0.25" thick | N/A | N/A |
| Sopraboard Minimum 1/8" thick | N/A | N/A |
| ConPearl, GAFTEMP Permalite, EnergyGuard Perlite Roof Insulation, Fesco Board, Perlite 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.

Base Sheet: One ply of Soprafix, Soprafix-e, fastened to the deck using OMG Polymer Batten Strip with OMG Large Head #15 Roofgrip fasteners or Tru-Fast BB-18-R Batten Bar with Tru-Fast HD Fasteners spaced 12" o.c. in the minimum 5" wide lap.

Ply Sheet: (Optional)
One or more plies of Elastophene Sanded, Elastophene Sanded FR, Elastophene HR, Elastophene HR FR, Elastophene 180 Sanded or Sopralene (180, 250 or 350) Sanded or one or more plies of Type IV or Type VI ply sheets adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base membrane.

Membrane: Elastophene Sanded*, Elastophene Sanded FR*, Elastophene HR*, Elastophene HR FR*, Elastophene 180 Sanded*, Sopralene (180, 250, 350) Sanded*, Elastophene FR GR or FR+ GR, Elastophene LS FR GR, Elastophene GR, SopraStar 180 Sanded, Sopralene (180, 250, 350) GR, or Sopralene (180, 250, 350) FR GR, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base or ply membrane.
*Requires approved Surfacing.

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

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



Deck Type 7I: Recover, Insulated

Deck Description: Steel/Concrete

System Type D(13): All layers of insulation and base sheet simultaneously attached.

All General and System Limitations apply.

Thermal Barrier: (Optional) Minimum 5/8" thick Securock, DensDeck, DensDeck Prime or DensDeck DuraGuard, pre-secured with a maximum contributory area of 1:4 ft²

Vapor Barrier: (Optional) One or more layers of Elastophene Sanded, Elastophene Sanded 3.0, Elastophene HD, Elastophene HS, Elastophene HS FR, Elastophene Sande FR, Elastophene HR 2.2 mm, Elastophene HR 3.0 mm, Elastophene HR FR, Elastophene HP, Elastophene 180 Sanded, Sopralene 180 Sanded, Sopralene 250 Sanded, Sopralene 350 Sanded, Elastophene PS, Elastophene 180 PS, Elastophene 250 PS, Elastophene 350 PS, adhered in hot asphalt at 25 lbs/sq. or applied in FM Adhesive or FM Adhesive (VOC) at a rate of 1.5 gal/sq.

Or

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

Or

Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2 mm, Elastophene SP 3.0 mm, Elastophene Flam HS, Elastophene Flam HS FR, Elastophene Flam HR, Elastophene Flam HR FR, Elastophene Flam HP, Sopralene 180 SP, Sopralene 180 SP 3.5 mm, Sopralene 250 SP, Sopralene 350 SP, Sopralene Flam 180, Sopralene Flam 250, Sopralene Flam 350, heat welded

Or

EPS Flam Stick, Sopralene Stick of Sopralene Flam Stick, self-adhered.

One or more layers of any of the following insulations.

Base Insulation Layer

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

AC Foam II, Hy-Therm AP, ISO 95+ GL, H-Shield, ENRGY 3, Multi-Max 3, M-Shield
Minimum 1.5" thick

N/A

N/A

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

Top Insulation Layer

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

Securock, DensDeck, DensDeck Prime, DensDeck DuraGuard
Minimum 0.5" thick

2, 3, 72, 10, 41, 46, 47

1:4 ft²

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

Primer: (Optional) Coverboard is primed with an approved ASTM D41 asphalt primer at a rate of 100-150 ft²/gal.

Base Sheet: Sopralene Flam 180, Sopralene Flam 250, Sopralene Flam 350, Soprafix, Soprafix [F], Soprafix [H], Soprafix [S], Soprafix [X] or Soprafix-e fastened as specified below:



- Fastening #1:** Heat weld base membrane to the coverboard with minimum 3" laps. Mechanically attach heat welded base sheet with Soprema #14 or Soprema #15-EL fasteners and Soprema Soprafix 2" SB Stress plates, Dekfast #14 of Dekfast #15 HS fasteners with Dekfast IF-2-SB, Dekfast Galvalume Steel Round 2-3/8" 20 ga. Barbed plates, Tru-Fast EHD fasteners with Tru-Fast 2" Barbed Metal Stress Plates or Tru-Fast 2.4" Barbed Seam Plates, spaced maximum 12" o.c. through the side laps and two equally spaced staggered rows in the field of the membrane.
(Maximum Design Pressures –165 psf; See General Limitation #7.)
- Fastening #2** Mechanically attach base sheet with Soprema #14 or Soprema #15-EL fasteners and Soprema Soprafix 2" SB Stress plates, Dekfast #14 of Dekfast #15 HS fasteners with Dekfast IF-2-SB, Dekfast Galvalume Steel Round 2-3/8" 20 ga. Barbed plates, Tru-Fast EHD fasteners with Tru-Fast 2" Barbed Metal Stress Plates or Tru-Fast 2.4" Barbed Seam Plates, spaced maximum 12" o.c. through the minimum 3" wide side lap and two equally spaced staggered rows in the field of the membrane.
(Maximum Design Pressures –150 psf; See General Limitation #7.)
- Ply Sheet:** Elastophene Flam, Elastophene Flam 2.2, Elastophene Flam HP, Elastophene Flam HP FR, Elastophene Flam HR 2.2 mm, Elastophene Flam HR 3.0 mm, Elastophene Flam HR FR, Elastophene Flam HS, Elastophene Flam HS FR, Sopralene Flam 180, Sopralene Flam 250, Sopralene Flam 350, heat welded
- Membrane:** Elastophene Flam FR GR, Elastophene Flam GR, Elastophene Flam HP FR GR, Elastophene Flam HP GR, Elastophene Flam HS GR, Elastophene Flam HR GR, Elastophene Flam HS FR GR, Elastophene Flam HS GR, Elastophene Flam LS FR GR, Sopralast 50 TV Alu, Sopralast 50 TV Copper, Sopralast 50 TV Inox, Soprastar Flam, Soprastar Flam 180, Sopralene Flam, 180 FR GR, Sopralene Flam 180 GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 GR, Sopralene Flam 350 FR GR, Sopralene Flam 350 GR, Sopralene Flam Jardin, Sopralene Mammoth GR, heat welded
- Surfacing:** Surfacing is Optional on granular surfaced field cap membranes. Surfacing is Required for smooth or sanded surfaced field cap membranes. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system.
- Maximum Design Pressure:** See Fastening Options Above



Deck Type 3I: Recover, Insulated

Deck Description: Steel/Concrete

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

All General and System Limitations apply.

Thermal Barrier: (Optional) Minimum 5/8" thick Securock, DensDeck, DensDeck Prime or DensDeck DuraGuard, pre-secured with a maximum contributory area of 1:4 ft²

Vapor Barrier: (Optional) One or more layers of Elastophene Sanded, Elastophene Sanded 3.0, Elastophene HD, Elastophene HS, Elastophene HS FR, Elastophene Sande FR, Elastophene HR 2.2 mm, Elastophene HR 3.0 mm, Elastophene HR FR, Elastophene HP, Elastophene 180 Sanded, Sopralene 180 Sanded, Sopralene 250 Sanded, Sopralene 350 Sanded, Elastophene PS, Elastophene 180 PS, Elastophene 250 PS, Elastophene 350 PS, adhered in hot asphalt at 25 lbs/sq. or applied in FM Adhesive or FM Adhesive (VOC) at a rate of 1.5 gal/sq.

Or

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

Or

Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2 mm, Elastophene SP 3.0 mm, Elastophene Flam HS, Elastophene Flam HS FR, Elastophene Flam HR, Elastophene Flam HR FR, Elastophene Flam HP, Sopralene 180 SP, Sopralene 180 SP 3.5 mm, Sopralene 250 SP, Sopralene 350 SP, Sopralene Flam 180, Sopralene Flam 250, Sopralene Flam 350, heat welded

Or

EPS Flam Stick, Sopralene Stick of Sopralene Flam Stick, self-adhered.

One or more layers of any of the following insulations.

Base Insulation Layer

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

AC Foam II, Hy-Therm AP, ISO 95+ GL, H-Shield, ENRGY 3, Multi-Max 3, M-Shield
Minimum 1.5" thick

N/A

N/A

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

Top Insulation Layer

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

Securock, DensDeck, DensDeck Prime, DensDeck DuraGuard
Minimum 0.5" thick

2, 3, 72, 10, 41, 46, 47

1:4 ft²

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

Primer: (Optional) Coverboard is primed with an approved ASTM D41 asphalt primer at a rate of 100-150 ft²/gal.

Base Sheet: Sopralene 180 SP, Sopralene 3.5 mm, Sopralene 250 SP, Sopralene 350 SP fastened as specified below:



Fastening #1: Heat weld base sheet to coverboard with minimum 3" wide side lap. Mechanically attach heat welded base sheet with Soprema #14 or Soprema #15-EL fasteners and Soprema Soprafix 2" SB Stress plates, Dekfast #14 of Dekfast #15 HS fasteners with Dekfast IF-2-SB, Dekfast Galvalume Steel Round 2-3/8" 20 ga. Barbed plates, Tru-Fast EHD fasteners with Tru-Fast 2" Barbed Metal Stress Plates or Tru-Fast 2.4" Barbed Seam Plates, spaced maximum 12" o.c. through the side laps and two equally spaced staggered rows in the field of the membrane.
(Maximum Design Pressures –165 psf; See General Limitation #7.)

Fastening #2 Mechanically attach heat welded base sheet with Soprema #14 or Soprema #15-EL fasteners and Soprema Soprafix 2" SB Stress plates, Dekfast #14 of Dekfast #15 HS fasteners with Dekfast IF-2-SB, Dekfast Galvalume Steel Round 2-3/8" 20 ga. Barbed plates, Tru-Fast EHD fasteners with Tru-Fast 2" Barbed Metal Stress Plates or Tru-Fast 2.4" Barbed Seam Plates, spaced maximum 12" o.c. through the minimum 3" wide side lap and two equally spaced staggered rows in the field of the membrane.
(Maximum Design Pressures –150 psf; See General Limitation #7.)

Ply Sheet: Elastophene 180 PS, Elastophene PS, adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: Elastophene Flam FR GR, Elastophene Flam GR, Elastophene Flam HP FR GR, Elastophene Flam HP GR, Elastophene Flam HS GR, Elastophene Flam HR GR, Elastophene Flam HS FR GR, Elastophene Flam HS GR, Elastophene Flam LS FR GR, Sopralast 50 TV Alu, Sopralast 50 TV Copper, Sopralast 50 TV Inox, Soprastar Flam, Soprastar Flam 180, Sopralene Flam, 180 FR GR, Sopralene Flam 180 GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 GR, Sopralene Flam 350 FR GR, Sopralene Flam 350 GR, Sopralene Flam Jardin, Sopralene Mammoth GR, heat welded with minimum 3" wide side lap

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

Maximum Design Pressure: See Fastening Options Above



Deck Type 7I: Recover, Insulated

Deck Description: Steel/Concrete

System Type D(15): All layers of insulation and base sheet simultaneously attached.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

AC Foam II, Hy-Therm AP, ISO 95+ GL, H-Shield, ENRGY 3, Multi-Max 3, M-Shield
Minimum 1.5" thick

N/A

N/A

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

Top Insulation Layer

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

Securock, DensDeck, DensDeck Prime, DensDeck DuraGuard
Minimum 0.5" thick

2, 3, 72, 10, 41, 46, 47

1:4 ft²

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

Primer: (Optional) Coverboard is primed with an approved ASTM D41 asphalt primer at a rate of 100-150 ft²/gal.

Base Sheet: Sopralene 180 SP, Sopralene 3.5 mm, Sopralene 250 SP, Sopralene 350 SP, Soprafix [F]*, Soprafix [H]*, Soprafix [S]*, Soprafix [X]* or Soprafix*, heat welded to coverboard.

*Requires heat welded cap membrane.

Fastening #1: Heat weld base sheet to coverboard with minimum 3" wide side lap. Mechanically attach heat welded base sheet with Soprema #14 or Soprema #15-EL fasteners and Soprema Soprafix 2" SB Stress plates, Dekfast #14 of Dekfast #15 HS fasteners with Dekfast IF-2-SB, Dekfast Galvalume Steel Round 2-3/8" 20 ga. Barbed plates, Tru-Fast EHD fasteners with Tru-Fast 2" Barbed Metal Stress Plates or Tru-Fast 2.4" Barbed Seam Plates, spaced maximum 12" o.c. through the side laps and two equally spaced staggered rows in the field of the membrane.
(Maximum Design Pressures -165 psf; See General Limitation #7.)

Fastening #2 Mechanically attach base sheet with Soprema #14 or Soprema #15-EL fasteners and Soprema Soprafix 2" SB Stress plates, Dekfast #14 of Dekfast #15 HS fasteners with Dekfast IF-2-SB, Dekfast Galvalume Steel Round 2-3/8" 20 ga. Barbed plates, Tru-Fast EHD fasteners with Tru-Fast 2" Barbed Metal Stress Plates or Tru-Fast 2.4" Barbed Seam Plates, spaced maximum 12" o.c. through the minimum 3" wide side lap and two equally spaced staggered rows in the field of the membrane.
(Maximum Design Pressures -150 psf; See General Limitation #7.)



Ply Sheet: Elastophene SP, Elastophene SP 3.0 mm, Sopralene 180 SP, Sopralene 180 SP 3.5 mm, Sopralene 250 SP, Sopralene 350 SP, heat welded

Or

Elastophene 180 Sanded, Elastophene HP, Elastophene HR 2.2, Elastophene HR 3.0, Elastophene HR FR, Elastophene HS, Elastophene HS FR, Elastophene Sanded, Elastophene Sanded FR, Sopralene 180, Sopralene 180 Sanded, Sopralene 250 Sanded, Sopralene 350 Sanded, or 1-2 plies of Sopra IV or Sopra VI, adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: Elastophene FR GR, Elastophene GR, Elastophene HP FR GR, Elastophene HP GR, Elastophene HR FR GR, Elastophene HS FR GR, Elastophene HS GR, Elastophene LS FR GR, SopraStar 180 Sanded, Sopralene 180 FR GR, Sopralene 180 GR, Sopralene 250 FR GR, Sopralene 250 GR, Sopralene 350 FR GR, Sopralene 350 GR, SopraStar Sanded, adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

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

Maximum Design Pressure: See Fastening Options Above



Deck Type 7: Recover
Deck Description: wood/steel/concrete/lightweight concrete/cementitious wood fiber/gypsum
System Type E(1): Base sheet mechanically fastened.

All General and System Limitations apply.

Fire Barrier: (Optional) Tritex Rocroof, loose laid
Base Sheet: One ply of Sopra-G, Modified Sopra-G, Sopraglass 100, Sopra 4897, Soprabase, GAFGLAS #75, GAFGLAS Stratavent or Channel Vent fastened to the deck as described below:
Fastening #1: (*wood, steel, concrete*) Attach base sheet using SFS #14 Dekfast with Hex Plates or SFS Insulfixx S or HD Insulfixx S spaced 9" o.c. in a 4" lap and 12" o.c. in two staggered rows in the center of the sheet.
Fastening #2: (*lightweight concrete, cementitious wood fiber, gypsum*) Attach base sheet using TPR fasteners with SFS Insulfixx S Plates spaced 9" o.c. in a 4" lap and 12" o.c. in two staggered rows in the center of the sheet.
Fastening #3: (*lightweight concrete, cementitious wood fiber, gypsum*) Attach base sheet using Twin Loc-Nails spaced 9" o.c. in a 2" lap and 18" o.c. in two staggered rows in the center of the sheet.
Fastening #4: (*lightweight concrete, cementitious wood fiber, gypsum*) Attach base sheet using Simplex Turbo Tube-Lok fasteners spaced 9" o.c. in a 4" lap and 12" o.c. in two staggered rows in the center of the sheet.

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

Ply Sheet: One or more plies of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene (180, 250 or 350) Flam* or Sopralene (180, 250 or 350) SP, heat welded
Or
One or more plies of Elastophene Sanded, Elastophene Sanded FR, Elastophene HR, Elastophene HR FR, Elastophene 180 Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Sopralene (180, 250 or 350) PS*, Sopralene (180, 250 or 350) Sanded or ASTM D 2178 Type IV or VI ply sheet, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base membrane.

*Requires heat welded cap membrane.

Membrane: Elastophene SP 2.2mm*, Elastophene SP 3.0mm*, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, Elastophene Flam LS FR GR, Soprastar Flam, Soprastar Flam 180, Sopralene (180, 250, 350) Flam GR, Sopralene (180, 250, 350) Flam FR GR or FR+ GR or Sopralast, heat welded

Or

Elastophene Sanded*, Elastophene Sanded FR*, Elastophene HR*, Elastophene HR FR*, Elastophene 180 Sanded*, Sopralene (180, 250, 350) Sanded*, Elastophene FR GR or FR+ GR, Elastophene LS FR GR, Elastophene GR, Soprastar 180 Sanded, Sopralene (180, 250, 350) GR, or Sopralene (180, 250, 350) FR GR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced ply membrane.

*Requires approved Surfacing.

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

Maximum Design Pressure: -45 psf (See General Limitation #9)



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Deck Type 7: Recover
Deck Description: wood/steel/concrete/lightweight concrete/cementitious wood fiber/gypsum
System Type E(2): Base sheet mechanically fastened.

All General and System Limitations apply.

Fire Barrier: (Optional) Tritex Rocroof, loose laid
Base Sheet: One ply of Soprafix, Soprafix [S]*, Soprafix [X]*, Soprafix [H], Sopralene Flam 180* or Elastophene Flam 180 2.5 mm*, Sopralene Flam 250, fastened to the deck as described below:
*Require heat welded ply or cap membrane.

Fastening #1: *(wood, steel, concrete)* Attach base sheet using HD Insulfixx or SOPREMA #14 fasteners with Soprafix 2" Round Barbed Plates spaced 18" o.c. in a 4" wide heat welded or bituminous taped seam.

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

Fastening #2: *(wood, steel, concrete)* Attach base sheet using HD Insulfixx S fasteners spaced 24" o.c. in the center of the sheet. Laps are heat welded. Fastener rows are stripped in with a 7" wide section of heat welded base sheet membrane.

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

Fastening #3: *(steel)* (Excludes use of Elastophene Flam 180 2.5 mm as base sheet.) Attach base sheet using SFS #15 High Load Fasteners or Soprafix [X]-EL fasteners and 70 mm Round Plates or Soprafix 2" Round Barbed Plates spaced 12" o.c. in a 5" wide heat welded lap.

(Maximum Design Pressure –75 psf See General Limitation #9)

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

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

Fastening #5: *(lightweight concrete, cementitious wood fiber, gypsum)* Attach base sheet using TPR fasteners with Soprafix 2" Round Barbed Plates spaced 24" o.c. in the center of the sheet. Laps are heat welded. Fastener rows are stripped in with a 7" wide section of heat welded base sheet membrane.

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

Fastening #6: *(lightweight concrete, gypsum)* (Excludes the use of Elastophene Flam 180 2.5 mm as base sheet) Attach base sheet using Tri-Fix Fasteners spaced 10" o.c. in a 5" lap. The side lap fastener row is encapsulated in the heat welded lap.

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

Fastening #7: *(gypsum)* (Excludes the use of Elastophene Flam 180 2.5 mm as base sheet) Attach base sheet using ES Twin Loc-Nails spaced 9' o.c. in a 5" lap and 9" o.c. in one row in the center of the sheet. Laps are heat welded. Fastener rows are stripped in with a 8" wide section of heat welded base sheet membrane.

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



Fastening #8: (*lightweight concrete, gypsum*) (Excludes the use of Elastophene Flam 180 2.5 mm as base sheet) Attach base sheet using Tri-Fixx Fasteners spaced 8" o.c. in a 5" lap and 8" o.c. in one center row. The side lap fastener row is encapsulated in the heat welded lap and the center row is stripped-in with a 8" wide strip of heat welded membrane.

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

Fastening #9: (*steel, concrete*) (Excludes the use of Elastophene Flam 180 2.5 mm as base sheet.) Attach base sheet using #14 Soprafix Fasteners and Soprafix 2" Round Barbed Plates spaced 12" o.c. in a 5" wide heat welded lap.

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

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

Ply Sheet: (Optional) One or more plies of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene (180, 250 or 350) Flam*, or Sopralene (180, 250 or 350) SP, heat welded.

Or

One ply of Sopralene Flam Stick*, Sopralene Stick or EPS Flam Stick*, self adhered. (Note: Prime sanded surfaced Base Sheet.)

*Requires heat welded cap membrane.

Membrane: Elastophene SP 2.2mm*, Elastophene SP 3.0mm*, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, Elastophene Flam LS FR GR, SopraStar Flam, SopraStar Flam 180, Sopralene (180, 250, 350) Flam GR, Sopralene (180, 250, 350) Flam FR GR or FR+ GR or Sopralast, heat welded

Or

Colphene FR GR, Colphene GR, Colphene HR FR GR self adhered. (Note: Prime sanded surfaced Base or Ply Sheet.)

Or

SopraStar Stick, self-adhered to Elastocol 600c primed sand surfaced base or ply membrane.

*Requires approved Surfacing.

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

Maximum Design Pressure: See Fastening Requirements above.



Deck Type 7: Recover
Deck Description: lightweight concrete/gypsum
System Type E(3): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of Sopra-G, Soprabase, GAFGLAS #75 or GAFGLAS Stratavent, Flex-I-Glas Base, All weather/Empire, Parabase Plus or Vapor Chan fastened to the deck as described below:

Fastening: Attach base sheet using ES Products Twin Loc-nails spaced 9" o.c. in a 4" lap and 9" o.c. in two staggered rows in the center of the sheet.

Ply Sheet: (Optional) One or more plies of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene (180, 250 or 350) Flam* or Sopralene (180, 250 or 350) SP, heat welded

Or

One or more plies of Elastophene Sanded, Elastophene Sanded FR, Elastophene HR, Elastophene HR FR, Elastophene 180 Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Sopralene (180, 250 or 350) PS*, Sopralene (180, 250 or 350) Sanded or ASTM D 2178 Type IV or VI ply sheet, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base membrane.

*Requires heat welded cap membrane.

Membrane: Elastophene SP 2.2mm*, Elastophene SP 3.0mm), Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, Elastophene Flam LS FR GR, Soprastar Flam, Soprastar Flam 180, Sopralene (180, 250, 350) Flam GR, Sopralene (180, 250, 350) Flam FR GR or FR+ GR or Sopralast, heat welded

Or

Elastophene Sanded*, Elastophene Sanded FR*, Elastophene HR*, Elastophene HR FR*, Elastophene 180 Sanded*, Sopralene (180, 250, 350) Sanded*, Elastophene FR GR or FR+ GR, Elastophene LS FR GR, Elastophene GR, Soprastar 180 Sanded, Sopralene (180, 250, 350) GR, or Sopralene (180, 250, 350) FR GR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base or ply membrane.

*Requires approved Surfacing.

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

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



Deck Type 7: Recover
Deck Description: lightweight concrete/gypsum
System Type E(4): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of Soprabase or Vapor Chan fastened to the deck as described below:

Fastening: Attach base sheet using ES Products Twin Loc-nails spaced 9" o.c. in a 4" lap and 9" o.c. in two staggered rows in the center of the sheet.

Ply Sheet: One or more plies of Elastophene Sanded, Elastophene Sanded FR, Elastophene HR, Elastophene HR FR, Elastophene 180 Sanded, Sopralene (180, 250 or 350) Sanded or ASTM D 2178 Type IV or VI ply sheet, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base membrane.

Membrane: Elastophene Sanded*, Elastophene Sanded FR*, Elastophene HR*, Elastophene HR FR*, Elastophene 180 Sanded*, Sopralene (180, 250, 350) Sanded*, Elastophene FR GR or FR+ GR, Elastophene LS FR GR, Elastophene GR, SopraStar 180 Sanded, Sopralene (180, 250, 350) GR, or Sopralene (180, 250, 350) FR GR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced ply membrane.

*Requires approved Surfacing.

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

Maximum Design Pressure:

-75 psf (See General Limitation #7)



Deck Type 7: Recover
Deck Description: steel/concrete
System Type E(5): Base sheet mechanically fastened.

All General and System Limitations apply.

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

Base Sheet: None

Ply Sheet: None

Membrane: One ply of UNILAY membrane fastened through the insulation to the deck using Soprafix [X]-EL fastener and UNILAY plates spaced 12" o.c. in a 6" wide lap. The side lap fastener row is encapsulated in the heat welded lap.

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

Maximum Design

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



Deck Type 7: Recover
Deck Description: lightweight concrete/cementitious wood fiber/gypsum
System Type E(6): Base sheet mechanically fastened

All General and System Limitations apply.

Primer: (Optional) Elastocol 400, 500, Elastocol 600c or AquaTac applied at a rate of 1 gal/sq, to top surface of any base or ply sheet prior to application of next layer

Base Layer: One layer Soprafix, Soprafix (X)*, Sopralene Flam 180* or Sopralene Flam 250*, mechanically attached with 1.8" Twin-loc fasteners spaced 9" o.c. within the 4" wide lap and 9" o.c. in one row centered in the field. Center fastener row is covered with an 8" wide strip of Soprafix, Soprafix (X)*, Sopralene Flam 180* or Sopralene Flam 250*.

*Requires heat welded ply or cap membrane..

Ply Sheet: (Optional)

One or more layers of Sopralene Flam Stick*, EPS Flam Stick*, Sopralene Stick, self-adhered to sand surfaced base membrane.

Or

Elastophene Flam*, Elastophene Flam FR*, Elastophene Flam 2.2 mm*, Elastophene Flam HS FR*, Elastophene Flam HR 3.0 mm*, Elastophene Flam HP*, Elastophene SP 2.2mm, Elastophene SP 3.0mm, Sopralene Flam 180*, Sopralene Flam 180 2.7 mm*, Sopralene 180 SP 3.5 mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350*, Sopralene 350 SP, heat welded.

Or

Elastophene Sanded, Elastophene Sanded FR, Elastophene Sanded 3.0 mm, Elastophene HR, Elastophene HR 3.0 mm, Elastophene HD, Elastophene HP, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 Sanded, Elastophene 180 PS*, Sopralene 180 Sanded, Sopralene 180 Sanded 3.5 mm, Sopralene 180 PS*, Sopralene 250 Sanded, Sopralene 250 Sanded 3.5 mm, Sopralene 250 PS*, Sopralene 250 PS 2.7 mm*, Sopralene 350 Sanded, Sopralene 350 PS*, adhered in hot asphalt at 25 lbs/sq. or applied in FM Adhesive or FM Adhesive (VOC) at a rate of 1.5 gal/sq. to sand surfaced base membrane.

*Requires heat welded cap membrane.



Membrane:

One layer of Elastophene Flam GR, Elastophene Flam UW GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR UW GR, Elastophene Flam FR+ GR, Elastophene Flam FR+ UW GR, Elastophene Flam HR FR GR, Elastophene Flam HS FR GR, Elastophene Flam HS FR UW GR, Elastophene Flam HP FR GR, Sopralene 180 SP 3.5mm*, Soprafix*, Soprastar Flam, Soprastar Flam 180, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR UW GR, Sopralene Flam 180 FR+ GR, Sopralene 250 SP*, Sopralene Flam 250 GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR UW GR, Sopralene Flam 250 FR+ GR, Sopralene Flam 250 FR+ UW GR, Sopralene 350 SP*, Sopralene Flam 350 GR, Sopralene Flam 350 FR GR, Sopralene Flam Jardin, Sopralene Mammouth GR, Sopralast 50 TV Alu, Sopralast 50 TV Alu White, Sopralast Alu, Sopralast TV Copper, Sopralast Copper, Sopralast TV Inox or Sopralast Stainless Steel, heat welded.

*Requires approved Surfacing.

Surfacing:

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

Maximum Design Pressure:

-60 psf (See General Limitation #7.)



Deck Type 7I: Recover
Deck Description: lightweight concrete/cementitious wood fiber/gypsum
System Type E(7): Base sheet mechanically fastened

All General and System Limitations apply.

Primer: (Optional) Elastocol 400, 500, Elastocol 600c or AquaTac applied at a rate of 1 gal/sq, to top surface of any base or ply sheet prior to application of next layer

Base Layer: One layer Soprafix, Soprafix (X) or Soprafix-e, mechanically attached with Twin-Loc Nails spaced 6" o.c. through ITW OMG Polymer Batten Strip-TL, ES Products Batten Bar-TL, Tru-Fast Twin Loc Batten Bar or Dekfast Coiled Batten Strip, placed in the lap and in one row centered in the field.
Center fastener row is covered with an 8" wide strip of Sopralene Flam Stick*, EPS Flam Stick* or Sopralene Stick, self-adhered.
Or
Elastophene Flam*, Elastophene Flam FR*, Elastophene Flam 2.2 mm*, Elastophene Flam HS FR*, Elastophene Flam HR 3.0 mm*, Elastophene Flam HP*, Elastophene SP 2.2mm, Elastophene SP 3.0mm, Sopralene Flam 180*, Sopralene Flam 180 2.7 mm*, Sopralene 180 SP 3.5 mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350*, Sopralene 350 SP, heat welded.
*Requires heat welded ply or cap membrane.

Ply Sheet: (Optional) One or more layers of Elastophene Flam HP*, Sopralene Flam 180*, Sopralene Flam 180 2.7mm*, Sopralene Flam 250* or Sopralene Flam 350*, heat welded.
*Requires heat welded cap membrane.

Membrane: SopraStar Flam, SopraStar Flam 180, Elastophene Flam HP FR GR, Sopralene 180 SP 3.5mm*, Soprafix*, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR UW GR, Sopralene Flam 180 FR+ GR, Sopralene 250 SP*, Sopralene Flam 250 GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR UW GR, Sopralene Flam 250 FR+ GR, Sopralene Flam 250 FR+ UW GR, Sopralene 350 SP*, Sopralene Flam 350 GR, Sopralene Flam 350 FR GR, heat welded.
Or
SopraStar Stick, self-adhered to Elastocol 600c primed sand surfaced base or ply membrane

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

Maximum Design Pressure: -52.5 psf (with SopraStar Stick as cap membrane) (See General Limitation #7)
-82.5 psf (with all other cap membranes) (See General Limitation #7.)



Deck Type 7I: Recover
Deck Description: lightweight concrete/cementitious wood fiber/gypsum
System Type E(8): Base sheet mechanically fastened

All General and System Limitations apply.

Primer: (Optional) Elastocol 400, 500, Elastocol 600c or AquaTac applied at a rate of 1 gal/sq, to top surface of any base or ply sheet prior to application of next layer

Base Layer: One layer Soprafix, Soprafix (X) or Soprafix-e, mechanically attached with Twin-Loc Nails spaced 6" o.c. through OMG Polymer Batten Strip-TL, ES Products Batten Bar-TL, Tru-Fast Twin Loc Batten Bar or SFS Intec Coiled Batten Strip, placed in the lap and in one row centered in the field. Center row is covered with an 8" wide strip of Sopralene Flam Stick*, EPS Flam Stick* or Sopralene Stick, self-adhered.

Or

Elastophene Flam*, Elastophene Flam FR*, Elastophene Flam 2.2 mm*, Elastophene Flam HS FR*, Elastophene Flam HR 3.0 mm*, Elastophene Flam HP*, Elastophene SP 2.2mm, Elastophene SP 3.0mm, Sopralene Flam 180*, Sopralene Flam 180 2.7 mm*, Sopralene 180 SP 3.5 mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350*, Sopralene 350 SP, heat welded.

*Requires heat welded ply or cap membrane.

Ply Sheet: (Optional)

One or more layers of Sopralene Flam Stick*, EPS Flam Stick*, Sopralene Stick, self-adhered to sand surfaced base membrane.

Or

Elastophene Flam*, Elastophene Flam FR*, Elastophene Flam 2.2 mm*, Elastophene Flam HS FR*, Elastophene Flam HR 3.0 mm*, Elastophene Flam HP*, Elastophene SP 2.2mm, Elastophene SP 3.0mm, Sopralene Flam 180*, Sopralene Flam 180 2.7 mm*, Sopralene 180 SP 3.5 mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350*, Sopralene 350 SP, heat welded.

Or

Elastophene Sanded, Elastophene Sanded FR, Elastophene Sanded 3.0 mm, Elastophene HR, Elastophene HR 3.0 mm, Elastophene HD, Elastophene HP, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 Sanded, Elastophene 180 PS*, Sopralene 180 Sanded, Sopralene 180 Sanded 3.5 mm, Sopralene 180 PS*, Sopralene 250 Sanded, Sopralene 250 Sanded 3.5 mm, Sopralene 250 PS*, Sopralene 250 PS 2.7 mm*, Sopralene 350 Sanded, Sopralene 350 PS*, adhered in hot asphalt at 25 lbs/sq. or applied in FM Adhesive or FM Adhesive (VOC) at a rate of 1.5 gal/sq. to sand surfaced base membrane.

*Requires heat welded cap membrane.



Membrane:

One layer of Colphene HR FR GR, Colphene FR GR, Colphene GR, Sopralene Stick* or Colphene SA GR, self-adhered to sand surfaced base membrane

Or

Elastophene Flam GR, Elastophene Flam UW GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR UW GR, Elastophene Flam FR+ GR, Elastophene Flam FR+ UW GR, Elastophene Flam HR FR GR, Elastophene Flam HS FR GR, Elastophene Flam HS FR UW GR, Elastophene Flam HP FR GR, Sopralene 180 SP 3.5mm*, Soprafix*, Soprastar Flam, Soprastar Flam 180, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR UW GR, Sopralene Flam 180 FR+ GR, Sopralene 250 SP*, Sopralene Flam 250 GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR UW GR, Sopralene Flam 250 FR+ GR, Sopralene Flam 250 FR+ UW GR, Sopralene 350 SP*, Sopralene Flam 350 GR, Sopralene Flam 350 FR GR, Sopralene Flam Jardin, Sopralene Mammouth GR, Sopralast 50 TV Alu, Sopralast 50 TV Alu White, Sopralast Alu, Sopralast TV Copper, Sopralast Copper, Sopralast TV Inox or Sopralast Stainless Steel, heat welded.

Or

One layer of Elastophene Sanded*, Elastophene 180 Sanded*, Elastophene GR, Elastophene UW GR, Elastophene FR GR, Elastophene LS FR GR, Elastophene FR UW GR, Elastophene FR+ GR, Elastophene HD FR GR, Elastophene HR FR GR, Elastophene HS FR GR, Elastophene HS FR UW GR, Elastophene HP FR GR, Sopralene 180 Sanded*, Soprastar 180 Sanded, Sopralene 180 GR, Sopralene 180 FR GR, Sopralene 180 FR UW GR, Sopralene 250 Sanded*, Sopralene 250 GR, Sopralene 250 FR GR, Sopralene 250 FR UW GR, Sopralene 350 Sanded*, Sopralene 350 GR or Sopralene 350 FR GR, adhered in hot asphalt at 25 lbs/sq. or applied in FM Adhesive or FM Adhesive (VOC) at a rate of 1.5 gal/sq. to sand surfaced base or ply membrane.

*Requires approved Surfacing.

Surfacing:

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

Maximum Design Pressure:

-45 psf (See General Limitation #7.)



Deck Type 7I: Recover
Deck Description: lightweight concrete/cementitious wood fiber/gypsum
System Type E(9): Base sheet mechanically fastened

All General and System Limitations apply.

Primer: (Optional) Elastocol 400, 500, Elastocol 600c or AquaTac applied at a rate of 1 gal/sq, to top surface of any base or ply sheet prior to application of next layer

Base Layer: Elastophene Flam HP*, Sopralene Flam 180*, Sopralene Flam 180 2.7mm*, Sopralene 180 SP 3.5mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350*, Sopralene 350 SP, Elastophene HP, Elastophene 180 Sanded, Elastophene 180 PS*, Sopralene 180 Sanded, Sopralene 180 Sanded 3.5mm, Sopralene 180 PS*, Sopralene 180 PS 2.2mm*, Sopralene 250 Sanded Sopralene 250 Sanded 3.5mm, Sopralene 250 PS*, Sopralene 250 PS 2.7mm, Sopralene 350 Sanded or Sopralene 350 PS*, mechanically attached with 1.8" long Twin Loc-Nails spaced 6" o.c. in a min. 4" lap and 6" o.c. in two evenly spaced staggered rows in the field.

*Requires heat welded ply or cap membrane.

Ply Sheet: One or more layers of Sopralene Flam Stick*, EPS Flam Stick*, Sopralene Stick, self-adhered to sand surfaced base membrane.

Or

Elastophene Flam*, Elastophene Flam FR*, Elastophene Flam 2.2 mm*, Elastophene Flam HS FR*, Elastophene Flam HR 3.0 mm*, Elastophene Flam HP*, Elastophene SP 2.2mm, Elastophene SP 3.0mm, Sopralene Flam 180*, Sopralene Flam 180 2.7 mm*, Sopralene 180 SP 3.5 mm, Sopralene Flam 250*, Sopralene 250 SP, Sopralene Flam 350*, Sopralene 350 SP, heat welded.

Or

Elastophene Sanded, Elastophene Sanded FR, Elastophene Sanded 3.0 mm, Elastophene HR, Elastophene HR 3.0 mm, Elastophene HD, Elastophene HP, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 Sanded, Elastophene 180 PS*, Sopralene 180 Sanded, Sopralene 180 Sanded 3.5 mm, Sopralene 180 PS*, Sopralene 250 Sanded, Sopralene 250 Sanded 3.5 mm, Sopralene 250 PS*, Sopralene 250 PS 2.7 mm*, Sopralene 350 Sanded, Sopralene 350 PS*, adhered in hot asphalt at 25 lbs/sq. or applied in FM Adhesive or FM Adhesive (VOC) at a rate of 1.5 gal/sq. to sand surfaced base membrane.

*Requires heat welded cap membrane.



Membrane:

One layer of Colphene HR FR GR, Colphene FR GR, Colphene GR, Sopralene Stick* or Colphene SA GR, self-adhered to sand surfaced base or ply membrane.

Or

Soprapstar Stick, self-adhered to Elastocol 600c primed sand surfaced base or ply membrane

Or

Elastophene Flam GR, Elastophene Flam UW GR, Elastophene Flam FR GR, Elastophene Flam FR UW GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Elastophene Flam FR+ UW GR, Elastophene Flam HR FR GR, Elastophene Flam HS FR GR, Elastophene Flam HS FR UW GR, Elastophene Flam HP FR GR, Sopralene 180 SP 3.5mm*, Soprafix*, Soprapstar Flam, Soprapstar Flam 180, Sopralene Flam 180 GR, Sopralene Flam 180 FR GR, Sopralene Flam 180 FR UW GR, Sopralene Flam 180 FR+ GR, Sopralene 250 SP*, Sopralene Flam 250 GR, Sopralene Flam 250 FR GR, Sopralene Flam 250 FR UW GR, Sopralene Flam 250 FR+ GR, Sopralene Flam 250 FR+ UW GR, Sopralene 350 SP*, Sopralene Flam 350 GR, Sopralene Flam 350 FR GR, Sopralene Flam Jardin, Sopralene Mammouth GR, Sopralast 50 TV Alu, Sopralast 50 TV Alu White, Sopralast Alu, Sopralast TV Copper, Sopralast Copper, Sopralast TV Inox or Sopralast Stainless Steel, heat welded.

Or

One layer of Elastophene Sanded*, Elastophene 180 Sanded*, Elastophene GR, Elastophene UW GR, Elastophene FR GR, Elastophene LS FR GR, Elastophene FR UW GR, Elastophene FR+ GR, Elastophene HD FR GR, Elastophene HR FR GR, Elastophene HS FR GR, Elastophene HS FR UW GR, Elastophene HP FR GR, Sopralene 180 Sanded*, Soprapstar 180 Sanded, Sopralene 180 GR, Sopralene 180 FR GR, Sopralene 180 FR UW GR, Sopralene 250 Sanded*, Sopralene 250 GR, Sopralene 250 FR GR, Sopralene 250 FR UW GR, Sopralene 350 Sanded*, Sopralene 350 GR or Sopralene 350 FR GR, adhered in hot asphalt at 25 lbs/sq. or applied in FM Adhesive or FM Adhesive (VOC) at a rate of 1.5 gal/sq. to sand surface base or ply membrane.

*Requires approved Surfacing.

Surfacing:

Surfacing is Optional on granular surfaced field cap membranes.

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

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

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

Maximum Design Pressure:

-60 psf (See General Limitation #7.)



Deck Type 7: Recover
Deck Description: wood/steel/concrete/lightweight concrete/cementitious wood fiber/gypsum
System Type F: Base sheet adhered to a primed substrate.

All General and System Limitations apply.

Base Sheet: (Optional) One or more plies of Sopra-G, Modified Sopra-G, Sopraglass 40, Sopraglass 100, Sopra-IV, Sopra-VI, Soprabase, GAFGLAS #75, JM Perma Ply 28, Glasply IV or Glasply Premier adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional, required if no base sheet used) One or more plies of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene (180, 250 or 350) Flam* or Sopralene (180, 250 or 350) SP heat welded
Or
One or more plies of Elastophene Sanded, Elastophene Sanded FR, Elastophene HR, Elastophene HR FR, Elastophene 180 Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Sopralene (180, 250 or 350) PS*, Sopralene (180, 250 or 350) Sanded or ASTM D 2178 Type IV or VI ply sheet, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

*Requires heat welded cap membrane.

Membrane: Elastophene Flam, Elastophene SP 2.2mm*, Elastophene SP 3.0mm*, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, Elastophene Flam LS FR GR, Soprastar Flam, Soprastar Flam 180, Sopralene (180, 250, 350) Flam GR, Sopralene (180, 250, 350) Flam FR GR or FR+ GR or Sopralast heat welded
Or

Elastophene Sanded*, Elastophene Sanded FR*, Elastophene HR, Elastophene HR FR, Elastophene 180 Sanded*, Sopralene (180, 250, 350) Sanded*, Elastophene FR GR or FR+ GR, Elastophene LS FR GR, Elastophene GR, Soprastar 180 Sanded, Sopralene (180, 250, 350) GR, or Sopralene (180, 250, 350) FR GR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base or ply membrane

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

Maximum Design -620 psf (for concrete decks only) (See General Limitation #9)

Pressure: -60 psf (for all other deck types) (See General Limitation #9)



RECOVER SYSTEM LIMITATIONS:

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

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.
Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. Insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9B-72 of the Florida Administrative Code.

END OF THIS ACCEPTANCE



NOA No.: 09-0402.17
Expiration Date: 03/01/11
Approval Date: 06/10/09
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