MIAMI-DADE

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 High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Soprema Modified Bitumen Roofing Systems Over Steel 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 #01-0116.09 and consists of pages 1 through 24.
The submitted documentation was reviewed by Frank Zuloaga, RRC

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Modified Bitumen
Material:	SBS
Deck Type:	Steel
Maximum Design Pressure	-112.5 psf
Fire Classification:	See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
Sopra-G	39" x 99' (3 sq.)	ASTM D 4601	Fiberglass reinforced oxidized asphalt base sheet for bonding or mechanically attaching to substrate.
Modified Sopra-G	39" x 99' (3 sq.)	ASTM D 4601	Fiberglass reinforced oxidized asphalt base sheet for bonding or mechanically attaching 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 or cold adhesive.
Sopra IV or VI	36" x 180' (5 sq.)	ASTM D 2178 type IV orVI	Type IV or VI, fiberglass reinforced, smooth surfaced plysheet. 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	39" x 49' (1.5 sq.)	ASTM D 6163	Fiberglass reinforced, modified bitumen membrane with 1" wide factory applied strips on back side.
Sopra G-Vent	39" x 99' (3 sq.)	ASTM D 6163	Fiberglass reinforced, modified bitumen membrane with perforated holes.
Elastophene Sanded or Sanded 3.0	39" x 49' (1½ sq.)	ASTM D 6163	Fiberglass reinforced modified bitumen membrane sanded on both sides, used as a base and top ply. Applied in hot asphalt or cold adhesive.
Elastophene Sanded FR	39" x 49' (1½ sq.)	ASTM D 6163	Fiberglass reinforced modified bitumen membrane with fire retardants and sanded on both sides. Applied in hot asphalt or cold adhesive.
Elastophene HR	39" x 49' (1½ sq.)	ASTM D 6163	Fiberglass scrim reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt or cold adhesive.

Product	Dimensions	Test Specification	Product Description
Elastophene HR FR	39" x 49' (1½ sq.)	ASTM D 6163	Fiberglass scrim reinforced modified bitumen membrane with fire retardants and sanded on both sides. Applied in hot asphalt or cold adhesive.
Elastophene PS	39" x 49' (1½ sq.)	ASTM D 6163	Glass reinforced modified bitumen membrane with thermofusible plastic film for heat weld bonding to the top side; applied in hot asphalt or cold adhesive.
Elastophene Flam or Flam 2.2	39" x 33' (1 sq.)	ASTM D 6163	Fiberglass reinfoced modified bitumen membrane covered on both sides with a thermofusible plastic film. Applied by heat weld.
Elastophene 180	39" x 49' (1½ sq.)	ASTM D 6164	Non-woven polyester reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt or cold adhesive.
Elastophene 180 PS	39" x 48' (1½ sq.)	ASTM D 6164	Non-woven polyester reinforced modified bitumen membrane with thermofusible plastic film for torch bonding to the topside, used as a base sheet. Applied in hot asphalt or cold adhesive.
Elastophene GR	39" x 33' (1 sq.)	ASTM D 6163	Fiberglass reinforced modified bitumen membrane surfaced with colored granules. Applied in hot asphalt or cold adhesive.
Elastophene FR GR or FR+ GR	39" x 33' (1 sq.)	ASTM D 6163	Fiberglass reinforced modified bitumen membrane surfaced with colored granules. Applied in hot asphalt or cold adhesive.
Elastophene Flam FR GR or FR+ GR	39" x 33' (1 sq.)	ASTM D 6163	Fiberglass reinforced modified bitumen membrane surfaced with colored granules. Applied by heat weld.
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 primarily as a base ply. Applied in hot asphalt or cold adhesive.
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 primarily as a base ply. Applied in hot asphalt or cold adhesive.
Soprafix, 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.
Sopralene Flam 180 or 250	39" x 32' (1 sq.) 39" x 26' (¾ sq.)	ASTM D 6164	Non-woven polyester reinforced SBS modified bitumen membrane, both sides covered with thermofusible plastic film, primarily used as a base ply. Applied by torch.

Product	Dimensions	Test Specification	Product Description
Sopralene 180, 250 or 350 GR or FR GR	39" x 26' (¾ sq.)	ASTM D 6164	Non-woven polyester reinforced modified bitumen membrane with fire retardants and surfaced with colored granules. Applied in hot asphalt or cold applied adhesive.
Sopralene Flam 180, 250 or 350 GR	39" x 26' (¾ sq.)	ASTM D 6164	Non-woven polyester reinforced modified bitumen membrane surfaced with colored granules. Applied by heat weld.
Sopralene Flam 180, 250 or 350 FR GR or FR+ GR	39" x 26' (¾ sq.)	ASTM D 6164	Non-woven polyester reinforced modified bitumen membrane surfaced with colored granules. Applied by heat weld.
Sopralast	various	ASTM D 6298	Fiberglass reinforced modified bitumen waterproof sheeting faced with aluminum, copper or stainless steel foil.
UNILAY	39" x 33' (1 sq.)	ASTM D 6164	Non-woven polyester reinforced modified bitumen membrane fire retardants and surfaced with colored granules. Applied by mechanical attachment.
Sopralene Stick or Flam Stick	39" x 33' (1 sq.)	ASTM D 6164	Non-woven polyester reinforced modified bitumen membrane and faced with film or sand. Applied by self –adhesive.
EPS Flam Stick	39" x 33' (1 sq.)	ASTM D 6163	Fiberglass reinforced modified bitumen membrane with fire retardants and faced with film. Applied by self –adhesive.
Colphene 1000 or 1500	39" x 33' (1 sq.) 39" x 132' (4 sq.) 39" x 66' (2.1 sq.)	ASTM D 1970	Self adhered, non-reinforced waterproofing membranes ('Peel and Stick').
Colphene FR GR	39" x 33' (1 sq.)	ASTM D 6163	Fiberglass reinforced modified bitumen membrane with fire retardants and surfaced with colored granules. Applied by self –adhesive. ('Peel and Stick').
Colphene HR FR GR	39" x 33' (1 sq.)	ASTM D 6163	Fiberglass reinforced modified bitumen membrane with fire retardants and faced with film. Applied by self –adhesive. ('Peel and Stick').
Sopratape 606	5" wide		Bituminous tape for sealing of side and head laps.
Sopramastic 200	17 oz. pouch or 10.4 oz cartridge		Caulking compound.
Elastocol 500 and 600c		ASTM D 41	Asphalt primers.
Sopracolle			Cold-applied adhesive used to bond membrane to prepared substrates or to other membranes.
High Velocity Insulation Adhesive II (HVIA II)		Proprietary	One part elastomeric urethane foam adhesive.

Product	Dimensions	Test Specification	Product Description
High Velocity Insulation Adhesive III (HVIA III)		Proprietary	Two part elastomeric urethane foam adhesive.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ACFoam II	Polyisocyanurate foam insulation	Atlas Energy Products
ACFoam Composite	Composite polyisocyanurate insulation board	Atlas Energy Products
Gypsum	Gypsum board	generic
High Density Wood Fiberboard	Wood fiber insulation board	generic
Perlite Insulation	Perlite insulation board	generic
Dens Deck	Water resistant gypsum board	G-P Gypsum Corp.
ENRGY-2	Polyisocyanurate foam insulation	Johns Manville
ENRGY-2 Plus, Composite, Fesco Foam	Composite Insulation board	Johns Manville
Multi-Max FA	Polyisocyanurate foam insulation	RMax

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	#12, #14 & #15 Soprema Fasteners	Fasteners for membrane or insulation attachment to wood, steel or concrete decks.		Soprema, Inc.
2.	Soprafix [X]-EL #15	Fasteners for membrane attachment to steel or concrete decks.		Soprema, Inc.
3.	Soprema Plates	Metal or plastic stress plates for use with Soprema Fasteners.	3" diameter	Soprema, Inc.
4.	Soprafix Plates	AZ-55 Galvalume steel plate for use with the Soprafix system.	2" diameter	Soprema, Inc.
5.	Sopradisc	Galvanized metal bearing plate used for side lap attachment of Soprafix system.	2" diameter	Soprema, Inc.
6.	Soprema Isofast IF/IFT	AZ-50 Galvalume steel plate for use with the Soprafast System.	2¾" diameter	Soprema, Inc.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
7.	Soprafix/Soprafast	Stress plates for membrane securement.	3" diameter	Soprema, Inc.
8.	UNILAY Plate	Stress plates for Unilay membrane securement.	2-3/8" diameter	Soprema, Inc.
9.	#12, #14 & #15 Dekfast Fastener	Insulation fastener		Construction Fasteners, Inc.
10.	Omega Fastener	Stainless steel insulation fastener		Construction Fasteners, Inc.
11.	Dekfast Hex Plate	Galvalume AZ50 steel plate	2 $^{7}/_{8}$" x 3 ¼"	Construction Fasteners, Inc.
12.	Dekfast Lock Plate	Polypropylene locking plate.	3" x 3 ¼"	Construction Fasteners, Inc.
13.	#12, #14 & #15 Roofgrip Fasteners	Insulation fastener for wood and steel.		ITW Buildex Corp.
14.	AccuTrac Hextra Fasteners	Insulation fastener for wood and steel.		ITW Buildex Corp.
15.	Accutrac Plate	Galvalume square stress plate	3" square	ITW Buildex Corp.
16.	Metal Plate	Galvalume stress plate.	3" round 3" square	ITW Buildex Corp.
17.	Gearlok Plastic Plate	Polyolefin round stress plate	3.2" round	ITW Buildex Corp.
18.	Olympic Fastener #12, #14 & #15	Insulation fastener.		Olympic Mfg. Group, Inc.
19.	Olympic Standard	Galvalume AZ50 steel plate	3" round	Olympic Mfg. Group, Inc.
20.	Olympic Plastic	Polypropylene stress plate	3.25" round	Olympic Mfg. Group, Inc.
21.	Insul-Fixx Fastener	Insulation fastener for steel and wood decks		SFS Intec, Inc.
22.	Isofast Fasteners	Insulation fastener for steel and wood decks		SFS Intec, Inc.
23.	Extra Load Fasteners #15	Fasteners for membrane attachment to steel or concrete decks.		SFS Intec, Inc.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
24.	Insul-Fixx S Plate	Galvalume AZ50 steel plate	3" round	SFS Intec, Inc.
25.	Insul-Fixx P Plate	Polyethylene stress plate	3" round	SFS Intec, Inc.
26.	Isofast Plate	Square or oblong galvalume steel plates for use with Isofast fasteners		SFS Intec, Inc.
27.	ES-I Fastening Systems	Insulation fastening assembly with plate.	3" round	SFS Intec, Inc.
28.	Tru-Fast Fastener	Insulation fastener for wood and steel decks		The Tru-Fast Corp.
29.	Tru-Fast HD	Insulation fastener for wood and steel decks		The Tru-Fast Corp.
30.	Tru-Fast MP-3	Galvalume AZ50 steel plate	3" round	The Tru-Fast Corp.
31.	Tru-Fast Plastic	Polypropylene plate	3" round	The Tru-Fast Corp.

EVIDENCE SUBMITTED:

Test Agency/Identifier	Name	Report	Date
Dynatech Engineering Corp.	2491-04.95	Wind Uplift	01.04.95
Factory Mutual Research Corp.	J.I. 1Z3A6.AM	Wind Uplift Classification	04.27.95
	J.I. 2D0A0.AM	Wind Uplift Classification	08.15.97
	J.I. 1D4A3.AM	Wind Uplift Classification	04.24.98
	30844	Class 4470	10.17.2000
	FM Approval Guide	Uplift Classifications	Annually
	3002351	Class 4470	02.28.03
Underwriters Laboratories, Inc.	UL Roofing Materials and Systems Directory	File No. R11436 Fire Classification	Published Annually
Exterior Research & Design, LLC	2003.02.97-1	Wind Uplift	02.15.97
	2003-2.04.97-1	Wind Uplift	04.15.97
	2002.07.97-1	Wind Uplift	08.15.97
	2716.05.98-1	Wind Uplift	05.27.98
	2738-10.00-1	Wind Uplift	10.20.2000
	2752.02LAB.05.02-1	Wind Uplift	05.24.02
	2109.09.02	Wind Uplift	09.19.02
IRT of S. Florida	990028	Wind Uplift	9/30/99

APPROVED ASSEMBLIES:

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel

System Type B(1): Base layer of insulation mechanically fastened, optional top layer adhered with approved asphalt.

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

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Toprox		
Minimum 1" thick	**1 or 19**	**1:2.4 ft^2**
AC Foam II		
Minimum 1.5" thick	**1, 10, 11, 14, 15, 19, 22, 23, 28 or 29**	**1:2 ft^2**
ACFoam Composite, ENRGY-2 Composite, ENRGY-2 Plus		
Minimum 1.5" thick	**1, 9, 10, 13, 14, 18, 21, 22, 27 or 28**	**1:4 ft^2**
ENRGY-2, PSI-25		
Minimum 1.4" thick	**1, 9, 10, 13, 14, 18, 21, 22, 27 or 28**	**1:2.67 ft^2**
AC Foam II, ENRGY-2, PSI-25		
Minimum 2" thick	**1, 9, 10, 13, 14, 18, 21, 22, 27 or 28**	**1:4 ft^2**
Dens-Deck		
Minimum ¼" thick	**1, 9, 14 or 21**	**1:4 ft^2**
Fireguard		
Minimum 5/8" thick	**1, 9, 14 or 21**	**1:4 ft^2**
GAFTEMP Permalite, Fesco Board		
Minimum ¾" thick	**9 or 10**	**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. See Roofing Application Standard RAS 117 for fastening details.

(Optional) Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
EPS Board - For use between Dens Deck or Fireguard base layer and Approved wood fiber top layer only.		
Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
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**

Dens Deck **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 ft^2. 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, 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 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.
Membrane:	Elastophene Flam, Elastophene SP, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, 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 GR, 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.
Surfacing:	(Optional) Install one of the following: 1. Gravel or slag at 400 lbs. or 300 lbs./sq., respectively, adhered with approved asphalt at an application rate of 60 lbs./sq. 2. Karnak 97 aluminum roof coating applied at an application rate of 1½ gal./sq.
Maximum Design Pressure:	-52.5 psf (See General Limitation #9)

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel Grade 80 steel fastened 6" o.c. with Traxx/5 fasteners to steel supports spaced maximum 6 ft. o.c. Deck side laps fastened with Traxx/1 fasteners spaced at 30" o.c.

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.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
AC Foam II, ENRGY-2, PSI-25		
Minimum 1.5" thick	**1, 9, 10, 13, 14, 18, 21, 22, 27 or 28**	**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. See Roofing Application Standard RAS 117 for fastening details.

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
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**

Note: Apply optional top layer of insulation shall be adhered with approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft^2. 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, 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 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.

Membrane:	Elastophene Flam, Elastophene SP, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, 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 GR, 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.
Surfacing:	(Optional) Install one of the following: 1. Gravel or slag at 400 lbs. or 300 lbs./sq., respectively, adhered with approved asphalt at an application rate of 60 lbs./sq. 2. Karnak 97 aluminum roof coating applied at an application rate of 1½ gal./sq.
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 2I: Steel, Insulated

Deck Description: 18-22 ga. steel

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.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
AC Foam II, ENRGY-2, PSI-25, Multi-Max FA **Minimum 1" thick**	**N/A**	**N/A**
Dens Deck **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: All layers shall be simultaneously fastened; see top layer below for fasteners and density.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Toprox **Minimum 1" thick**	**1 or 19**	**1:2.4 ft^2**
ACFoam Composite, ENRGY 2 Composite, ENRGY 2 Plus **Minimum 1.5" thick**	**1, 9, 10, 13, 14, 18, 21, 22, 27 or 28**	**1:4 ft^2**
Dens-Deck **Minimum ¼" thick**	**1, 10, 19 or 22**	**1:4 ft^2**
Fireguard **Minimum 5/8" thick**	**1, 9, 18 or 21**	**1:4 ft^2**
GAFTEMP Permalite, Fesco Board **Minimum ¾" thick**	**1, 9, 10, 13, 14, 18, 21, 22, 27 or 28**	**1:2 ft^2**
Esgard, High Density Fiberboard, GAFTEMP Fiberboard, Huebert Fiberboard **Minimum 1" thick**	**1, 9, 10, 13, 14, 18, 21, 22, 27 or 28**	**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. 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 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 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 full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Membrane:	Elastophene Flam, Elastophene SP, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, 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 GR, 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.
Surfacing:	(Optional) Install one of the following: 1. Gravel or slag at 400 lbs. or 300 lbs./sq., respectively, adhered with approved asphalt at an application rate of 60 lbs./sq. 2. Karnak 97 aluminum roof coating applied at an application rate of 1½ gal./sq.
Maximum Design Pressure:	-52.5 psf (See General Limitation #9)

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel

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.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
AC Foam II, ENRGY-2, PSI-25, Multi-Max FA 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/ft^2**
Dens-Deck Minimum ¼" thick	**1, 9, 10, 13, 14, 18, 21, 22, 27 or 28**	**1:2 ft^2**
Esgard, High Density Fiberboard, GAFTEMP Fiberboard, Huebert Fiberboard Minimum ½" thick	**1, 9, 10, 13, 14, 18, 21, 22, 27 or 28**	**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. 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.

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, Elastophene PS, 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 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 GR, 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.

Surfacing: (Optional) Install one of the following:

1. Gravel or slag at 400 lbs. or 300 lbs./sq., respectively, adhered with approved asphalt at an application rate of 60 lbs./sq.
2. Karnak 97 aluminum roof coating applied at an application rate of 1½ gal./sq.

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

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. Steel, Grade 80 steel decking over ¼" thick steel supports spaced at maximum 6 ft. o.c. attached with Traxx/5 fasteners at a spacing of 6" o.c. Deck side laps are attached 30" o.c. using Traxx/1 fasteners.

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.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
AC Foam II, ENRGY-2, PSI-25, Multi-Max FA 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/ft^2**
Dens-Deck Minimum ¼" thick	**13**	**1:1.78 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. 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 full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Or
Prime Dens-Deck with ASTM D 41 prime followed by one ply of Sopralene Flam Stick, Sopralene Stick or EPS Flam Stick, self adhered.

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 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.
or
One ply of Sopralene Flam Stick or Sopralene Stick self adhered. (Note: Prime sanded surfaced base Sheet.)

Membrane:	Elastophene Flam, Elastophene SP, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, 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, Elastophene GR or FR+ GR, 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. or Colphene FR GR or Colphene HR FR GR self adhered. (Note: Prime sanded surfaced Base or Ply Sheet.)
Surfacing:	(Optional) Install one of the following: 1. Gravel or slag at 400 lbs. or 300 lbs./sq., respectively, adhered with approved asphalt at an application rate of 60 lbs./sq. 2. Karnak 97 aluminum roof coating applied at an application rate of 1½ gal./sq.
Maximum Design Pressure:	-52.5 psf (See General Limitation #7)

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel

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

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
AC Foam II, ENRGY-2, Multi-Max FA Minimum 1.5" thick	**N/A**	**N/A**

Base orTop Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Toprox Minimum 1" thick	**N/A**	**N/A**

(Optional) Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
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**
Dens-Deck Minimum ¼" thick	**N/A**	**N/A**
Fireguard, type X gypsum Minimum ⅝" 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, Soprabase, Sopraglass 100, GAFGLAS #75 or JM Permaply 28 fastened to the deck as described below:

Fastening: Attach base 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.

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 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.
Membrane:	Elastophene Flam, Elastophene SP, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, 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 GR, 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.
Surfacing:	(Optional) Install one of the following: 1. Gravel or slag at 400 lbs. or 300 lbs./sq., respectively, adhered with approved asphalt at an application rate of 60 lbs./sq. 2. Karnak 97 aluminum roof coating applied at an application rate of 1½ gal./sq.
Maximum Design Pressure:	-60 psf (See General Limitation #7)

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel

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.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
AC Foam II, ENRGY-2, Multi-Max FA Minimum 1.4" thick	**N/A**	**N/A**
Toprox Minimum 2" thick	**N/A**	**N/A**

(Optional) Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
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**
Dens-Deck Minimum ¼" thick	**N/A**	**N/A**
Fireguard, type X gypsum Minimum ⅝" 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 180 Flam or Elastophene 180 Flam 2.5 mm fastened to the deck as described below:

Fastening #1:	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. ***(meets –45 psf – See General Limitation #9.)***
Fastening #2:	Attach base sheet using HD Insulfixx or SOPREMA #14 fasteners with Soprafix 2" Round Barbed Plates spaced 12" o.c. in a 4" wide heat welded or bituminous taped seam. ***(meets –77.5 psf – See General Limitation #9.)***
Fastening #3:	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. ***(meets –45 psf – See General Limitation #9.)***
Fastening #4:	(Excludes use of Elastophene 180 Flam 2.5 mm as base sheet.) Attach base sheet using SFS Extra Load Fasteners HD 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. ***(meets –75 psf – See General Limitation #7.)***
Fastening #5:	(Limited to use of Soprafix[X] Membrane only.) Attach base sheet using SFS Extra Load Fasteners HD or Soprafix [X]-EL fasteners and 70 mm Round Plates spaced 12" o.c. in a 6" wide heat welded lap. ***(meets –97.5 psf – See General Limitation #7.)***
Fastening #6:	(Excludes the use of Elastophene 180 Flam 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. ***(meets –60 psf – See General Limitation #7.)***
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 ahered. (Note: Prime sanded surfaced Base Sheet.)
Membrane:	Elastophene Flam, Elastophene SP, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, 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 or Colphene HR FR GR self adhered. (Note: Prime sanded surfaced Base or Ply Sheet.)
Surfacing:	(Optional) Install one of the following: 1. Gravel or slag at 400 lbs. or 300 lbs./sq., respectively, adhered with approved asphalt at an application rate of 60 lbs./sq. 2. Karnak 97 aluminum roof coating applied at an application rate of 1½ gal./sq.
Maximum Design Pressure:	See Fastening Requirements above.

Deck Type 2I: Steel, Insulated

Deck Description: 18 ga. Steel type 3N steel decking attached to minimum ½" thick, W14 x 43 purlins with an 8" wide top flange spaced maximum 9 ft. o.c. using ¾" puddle welds spaced 8" o.c. (every bottom flute). Two welds per attachment point, spaced 4" apart. Steel deck side laps are attached 24" o.c.

System Type D(3): Membrane attached over preliminary fastened insulation..

All General and System Limitations apply.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Any listed insulation listed herein.		

Base Sheet: One ply of Soprafix [X] Membrane or Sopralene 250 Flam fastened through the insulation to the structural deck using SFS #15 Extra Load Fasteners HD or Soprafix [X]-EL fasteners and 70-mm round plates spaced 16" o.c. in a 5" wide lap and 16" o.c. in one center row. The side lap fastener row is encapsulated in the heat welded lap and the center row is stripped-in with an 8" wide strip of heat welded 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

Membrane: Elastophene Flam, Elastophene SP, Elastophene Flam GR, Elastophene Flam FR GR or FR+ GR, Sopralene (180, 250, 350) Flam GR, Sopralene (180, 250, 350) Flam FR GR or FR+ GR, or Sopralast heat welded

Surfacing: (Optional) Install one of the following:
1. Gravel or slag at 400 lbs. or 300 lbs./sq., respectively, adhered with approved asphalt at an application rate of 60 lbs./sq.
2. Karnak 97 aluminum roof coating applied at an application rate of 1½ gal./sq.

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

Deck Type 2I: Steel, Insulated

Deck Description: 18 ga. Steel Grade 80 steel fastened 6" o.c. with Buildex Tek 4 fasteners to steel supports spaced maximum 5 ft. o.c. Deck side laps fastened with Traxx/1 fasteners spaced at 30" o.c.

System Type D(4): Membrane attached over preliminary fastened insulation..

All General and System Limitations apply.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Any listed insulation listed herein.		

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: None

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

STEEL DECK SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.

GENERAL LIMITATIONS:

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