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)

Siplast, Inc.
1111 Highway 67 South
Arkadelphia, AR 71923

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 Miami-Dade County Product Control Division (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. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division 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: Siplast Modified Bitumen Roofing Systems Over Concrete Decks

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

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

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

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

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

This NOA consists of pages 1 through 21.

ROOFING ASSEMBLY NOTICE OF ACCEPTANCE

Category:	Roofing
Sub-Category:	SBS/SBS Foil Modified Bitumen
Deck Type:	Concrete
Maximum Design Pressure	-402.5 psf
Fire Classification:	See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
Parabase	3' x 108'	ASTM D 4601	Asphalt coated fiberglass base sheet for mechanically fastened applications.
Parabase FS	3' x 108'	ASTM D 4601	Asphalt coated fiberglass base sheet with a polyolefin back surfacing for mechanically fastened applications.
Parabase Plus	3.28' x 102.3'; 28 lbs./sq.	ASTM D 5147	Elastomeric asphalt coated base sheet.
Paraglas	3' x 180'; 12 lbs./sq.	ASTM D 2178 Type IV	Asphalt coated fiberglass mat used as a base or ply sheet.
Paravent	3' x 108'	ASTM D 4601	Asphalt coated venting fiberglass base sheet with 1.5 inch perforations.
Paravent FS	3' x 108'	ASTM D 4601	Asphalt coated venting fiberglass base sheet with 1.5 inch perforations and a polyolefin back surfacing..
Paradiene 20	3.28' x 50'; 90 lbs./ sq.	ASTM D 6163	Asphalt elastomer sheet with random fiberglass mat reinforcement used as the base ply of a Paradiene 20/30 system.
Paradiene 20 HT	3.28' x 50'; 90 lbs./sq.	ASTM D 6163	Asphalt elastomer sheet with fiberglass scrim reinforcement for use as a base ply of a Paradiene 20/30 system.
Paradiene 20 EG	3.28' x 33.5'; 90 lbs./sq.	ASTM D 6163	Heavy duty asphalt elastomer sheet with fiberglass scrim reinforcement for use as a base ply in Paradiene systems.
Paradiene 20 HV	3.28' x 33.5'; 90 lbs./sq.	ASTM D 6163	Heavy duty asphalt elastomer sheet with random fiberglass mat reinforcement used as a base ply of a Paradiene 20/30 system.
Paradiene 20 PR	3.28' x 50'; 55 lbs./sq.	ASTM D 6162	Asphalt elastomer sheet with polyester fiberglass scrim composite reinforcement used as the top ply of a Paradiene 20/20 PR system having a gravel surfacing. Has additional puncture resistance.
Paradiene 20 TG	3.28' x 33.5'; 70 lbs./sq.	ASTM D 6163	Asphalt elastomer sheet with random fiberglass reinforcement used as the base ply of a Paradiene 20/30 TG Series system.

Product	Dimensions	Test Specification	Product Description
Paradiene 20 TG S	3.28' x 33.5'; 70 lbs./sq.	ASTM D 4601	Asphalt elastomer sheet with random fiberglass reinforcement and a silica parting agent on the top surface, for use as the base ply of a Paradiene 20/30 TG Series system.
Paradiene 20 HT TG	3.28' x 33.5'; 70 lbs./sq.	ASTM D 6163	Asphalt elastomer sheet with fiberglass scrim reinforcement for use as a base ply of a Paradiene 20/30 system.
Paradiene 20 EG TG	3.28' x 33.5'; 100 lbs./sq.	ASTM D 5147	Heavy duty asphalt elastomer sheet with fiberglass scrim reinforced for use as a base ply in Paradiene 20TG/30TG systems.
Paradiene 20 HV TG	3.28' x 33.5'; 100 lbs./sq.	ASTM D 6163	Heavy duty asphalt elastomer sheet with random fiberglass mat reinforcement used as a base ply of a Paradiene 20TG/30TG system.
Paradiene 20 PR TG	3.28' x 33.5'; 96 lbs./sq.	ASTM D 6164	High performance SBS modified bitumen finish ply designed for use in gravel surfaced. Used as a suface ply of a Paradiene 20/20TG system.
Teranap	3.28' x 26'; 97 lbs./sq.	ASTM D 5147	A nonwoven polyester mat impregnated and coated with high quality SBS modified bitumen. The surface of the sheet is protected by a polyester film or by sand.
Paradiene 30	3.28' x 33.5'; 85 lbs./sq.	ASTM D 6163	Asphalt elastomer sheet with mineral surfacing and random glass mat reinforcement, for use as the top ply of a Paradiene 20/30 system.
Paradiene 30FR	3.28' x 33.5'; 85 lbs./sq.	ASTM D 6163	Asphalt elastomer sheet with mineral surfacing and random glass mat reinforcement, for use as the top ply of a Paradiene 20/30 system.
Paradiene 30 HT	3.28' x 33.5'; 85 lbs./sq.	ASTM D 6163	Asphalt elastomer sheet with mineral surfacing and fiberglass scrim reinforcement for use as the top ply of a Paradiene 20/30 system.
Paradiene 30 HTFR	3.28' x 33.5'; 87 lbs./sq.	ASTM D 6163	Fire-rated asphalt elastomer sheet with mineral surfacing and fiberglass scrim reinforcement for use as the top ply of a Paradiene 20/30 FR system.
Paradiene 30TG	3.28' x 25.25'; 80 lbs./sq.	ASTM D 5147	Fire rated asphalt elastomer sheet with mineral surfacing and random fiberglass mat reinforcement for use as the top ply sheet of a Paradiene 20/30 TG Series system.

Product	Dimensions	Test Specification	Product Description
Paradiene 30 FRTG	3.28' x 25.25'; 80 lbs./sq.	ASTM D 6163	Fire rated asphalt elastomer sheet with mineral surfacing and random fiberglass mat reinforcement for use as the top ply sheet of a Paradiene 20/30 TG Series system.
Paradiene 30 HTTG	3.28' x 25.25'; 80 lbs./sq.	ASTM D 6163	Asphalt elastomer sheet with mineral surfacing and fiberglass scrim reinforcement for use as the top ply of a Paradiene 20/30 TG Series system requiring high tensile strength.
Paradiene 30 HTFRTG	3.28' x 25.25'; 80 lbs./sq.	ASTM D 6163	Fire rated asphalt elastomer sheet with mineral surfacing and fiberglass scrim reinforcement for use as the top ply of a Paradiene TG Series system.
Paradiene 40 FR	3.28' x 26'; 115 lbs./sq.	ASTM D 5147	Fire rated asphalt elastomer sheet with mineral surfacing, glass mat/glass scrim reinforced.
Parafor 50 LT	3.28' x 17.5'; 114 lbs./sq.	ASTM D 6162	Heavy duty asphalt elastomer sheet with mineral surfacing, polyester mat/fiberglass scrim reinforced.
Paralosa TS	3.28' x 26.25'; 141 lbs./sq.	ASTM D 6162	Heavy duty asphalt elastomer sheet with mineral surfacing, polyester mat/fiberglass scrim reinforced. For use as single ply membrane over concreter decks.
Parafast Roofing Fastener		PA 114	Insulation fastener.
Parafast Metal Plates	3" Round	PA 114	Galvalume coated steel plates.
IREX 30	3.28' x 34'; 74 lbs./sq.	ASTM D 5147	High-melt asphalt sheet with random fiberglass mat reinforcement for use as the base ply sheet for a Veral system.
IREX 40	3.28' x 34'; 89 lbs./sq.	ASTM D 5147	High-melt asphalt sheet with random fiberglass mat reinforcement for use as the base ply sheet for a Veral system.
IREX HT	3.28' x 34'; 89 lbs./sq.	ASTM D 5147	High-melt asphalt sheet with fiberglass scrim reinforcement for use as a base ply sheet for the Veral system.
IREX PR	3.28' x 34'; 89 lbs./sq.	ASTM D 5147	High-melt asphalt sheet with polyester mat / fiberglass scrim reinforcement for use as a mechanically fastened base sheet with the Veral system.
Veral Aluminum	3.28' x 33.5'; 90 lbs./sq.	ASTM D 6298	Aluminum clad asphalt elastomer sheet with woven fiberglass reinforcement for use as the top ply sheet of a Veral system.
Veral Copper	3.28' x 33.5'; 105 lbs./sq.	ASTM D 6298	Copper clad asphalt elastomer sheet with foverglass scrim reinforcement for use as the top ply of a Veral system.

Product	Dimensions	Test Specification	Product Description
Veral Stainless Steel	3.28 ' x 33.5'; 105 lbs./sq.	ASTM D 6298	Stainless steel clad asphalt elastomer sheet with fiberglass scrim reinforcement for use as the top ply sheet of a Veral system.
Veral Spectra Series	3.28' x 33.5'; 90 lbs./sq.	ASTM D 6298	Aluminum clad asphalt elastomer sheet with fiberglass scrim reinforcement and factory finished with a Kynar PVDF coating.
PA 100 Mopping Asphalt		ASTM D 312 Type IV	Mopping Asphalt
PA 311/311 C Adhesive	5 or 55 gal.	ASTM D 4479	Blend of adhesive asphalts and quick-drying solvents.
PA 828 Flashing Cement	5 gal.	ASTM D 4586	Flashing Cement
PA 1021 Plastic Cement	5 gal.	ASTM D 4586	Asphalt cutback reinforced general purpose cement with non-asbestos fibers.
PA 1125 Asphalt Primer	5 or 55 gal.	ASTM D 41	Asphalt primer.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ACFoam I, II	Isocyanurate Insulation	Atlas Roofing Corp.
Fiberglas	Fiber glass roof insulation.	Generic
High Density Wood Fiberboard	High Density Wood Fiber insulation board.	Generic
Perlite Insulation Board	Perlite Insulation	Generic
Dens Deck Dens Deck Prime	Water resistant gypsum	G-P Gypsum Corp.
H-Panel	Isocyanurate Insulation.	Hunter Panels LLC
ENRGY 2	Isocyanurate Insulation.	Johns Manville
Fiber Glass Roof Insulation	Fiberglas roof insulation.	Johns Manville
ISORoc	Polyisocyanurate foam insulation.	Johns Manville
DuraBoard	Expanded Mineral Fiber	Johns Manville
Multi-Max, FA	Polyisocyanurate foam insulation.	Rmax Inc.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	N/A	N/A	N/A	N/A

EVIDENCE SUBMITTED:

Test Agency/Identifier	Name	Report	Date
Factory Mutual Research Corp.	Current Insulation Attachment Requirements	FMRC 1996	01.01.96
Factory Mutual Research Corp.	FMRC 4470 - PA 114	J.I. 2X1A2.AM	11.04.93
Factory Mutual Research Corp.	FMRC 4470 - PA 114	J.I. 0G6A0.AM	
Factory Mutual Research Corp.	FMRC 4470 - PA 114	J.I. 2Y1A1.AM	04.15.96
Factory Mutual Research Corp.	FMRC 4470 - PA 114	J.I. 3Z3A7.AM	04.12.96
Factory Mutual Research Corp.	FMRC 4470	3008071	01.18.01
Factory Mutual Research Corp.	FMRC 4470	3008210	04.10.01
Underwriters Laboratories, Inc.	Fire Resistance Classification UL 790 - PA 114	R10630	01.01.96
Warnock Hersey, Inc.	Physical Properties ASTM D 5147 - PA 110	WH - 1234	12.15.93
Exterior Research & Design, LLC. - Trinity Engineering	Wind Uplift PA 114	#4701.02.96-1	02.28.96
Exterior Research & Design, LLC. - Trinity Engineering	Wind Uplift PA 114	#4701.09.96-1	08.22.96

APPROVED ASSEMBLIES

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated, New Construction

Deck Description:

System Type A: All layers of insulation adhered with approved asphalt.

All General and System limitations apply.

Insulation Layer	Insulation Fasteners	Fastener Density/ft^2
One or more layers of any of the following insulations:		
ENRGY-2, ACFoam-I, II **Minimum 1" thick**	**N/A**	**N/A**
ISORoc **Minimum 1.3" thick**	**N/A**	**N/A**
Fiberglas **Minimum 1" thick**	**N/A**	**N/A**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
High Density Wood Fiberboard **Minimum ½" thick**	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved 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. 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 used as a top layer shall be placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) One or more plies of Paraglas adhered to the insulation with approved mopping asphalt at an application rate of 20-25 lbs./sq. See General Limitation #4.

Ply Sheet: Paradiene 20 TG, 20 TG S, 20 HVTG, 20 HTTG or 20 EGTG, adhered by torch, or Paradiene 20, 20 FR, 20 HT, 20 HV or 20 EG adhered with approved mopping asphalt at an application rate of 20-25 lbs./sq. or with PA 311 adhesive. See General Limitation #4.

Membrane: Paradiene 30 FR or 30 HTFR adhered in approved mopping asphalt or PA 311 adhesive, or Paradine 20 PR, PRTG, Teranap, Paradiene 30 FRTG or 30 HTFRTG adhered by torch.

Note: **Refer to manufacturer's specifications for specific application requirements.**

Maximum Design Pressure: -52 psf (See General Limitation #9)

Membrane Type: SBS Foil

Deck Type 3I: Concrete Decks, Insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(2): All layers of insulation adhered to deck with approved asphalt.

All General and System limitations apply.

Insulation Layer	Insulation Fasteners	Fastener Density/ft^2
One or more layers of any of the following insulations:		
ENRGY-2, ACFoam-I, II **Minimum 1" thick**	**N/A**	**N/A**
ISORoc **Minimum 1.3" thick**	**N/A**	**N/A**
Fiberglas **Minimum 1" thick**	**N/A**	**N/A**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
High Density Wood Fiberboard **Minimum ½" thick**	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved 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. 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 used as a top layer shall be placed with the polyisocyanurate side facing down.

Base Sheet:	(Optional) One or more plies of Paraglas adhered to the insulation with approved mopping asphalt at an application rate of 20-25 lbs./sq. See General Limitation #4
Ply Sheet:	IREX 30, IREX 40 or IREX HT, adhered in approved mopping asphalt at an application rate of 20-25 lbs./sq. IREX 40 or IREX HT may be applied by torch. See General Limitation #4.
Membrane:	Veral adhered in approved mopping asphalt or by torch.
Surfacing:	None
Maximum Design Pressure:	-45 psf (See General Limitation #9)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(3): All layers of insulation adhered to deck with approved asphalt or adhesive.

All General and System limitations apply.

Insulation Layer	Insulation Fasteners	Fastener Density/ft^2
One or more layers of any of the following insulations:		
ENRGY-2, ACFoam-I, II Minimum 1.4" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft^2 or Insta-Stik adhesive applied in continuous ¾" to 1" wide beads at a maximum spacing of 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

Base Sheet:	(Optional) One ply of Paravent or Paravent FS loose laid and lapped a minimum of 1".
Ply Sheet:	Paradiene 20 TG, 20 TG S, 20 HVTG, 20 HTTG or 20 EGTG, adhered by torch, or Paradiene 20, 20 FR, 20 HT, 20 HV or 20 EG adhered with approved mopping asphalt at an application rate of 20-25 lbs./sq. or with PA 311 adhesive. See General Limitation #4.
Membrane:	Paradiene 30 FR or 30 HTFR adhered in approved mopping asphalt or PA 311 adhesive, or Paradine 20 PR, PRTG, Teranap, Paradiene 30 FRTG or 30 HTFRTG adhered by torch.
Note:	**Refer to manufacturer's specifications for specific application requirements.**
Maximum Design Pressure:	-90 psf (See General Limitation #9)

Membrane Type: SBS Foil

Deck Type 3I: Concrete Decks, Insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(4): All layers of insulation adhered to deck with approved asphalt or adhesive.

All General and System limitations apply.

Insulation Layer	**Insulation Fasteners**	**Fastener Density/ft^2**
One or more layers of any of the following insulations:		
ENRGY-2, ACFoam-I, II **Minimum 1.4" thick**	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft^2 or Insta-Stik adhesive applied in continuous ¾" to 1" wide beads at a maximum spacing of 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) One ply of Paravent or Paravent FS loose laid and lapped a minimum of 1".

Ply Sheet: IREX 30, IREX 40 or IREX HT, adhered in approved mopping asphalt at an application rate of 20-25 lbs./sq.

Membrane: Veral adhered in approved mopping asphalt or by torch.

Note: **Refer to manufacturer's specifications for specific application requirements.**

Maximum Design Pressure: -90 psf (See General Limitation #9)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(5): All layers of insulation adhered to deck with approved asphalt or adhesive.

All General and System limitations apply.

Base Insulation Layer (Optional)	**Insulation Fasteners**	**Fastener Density/ft^2**
One or more layers of any of the following insulations:		
Multimax, FA, H-Shield Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners**	**Fastener Density/ft^2**
Dens Deck Minimum ¼" thick	**N/A**	**N/A**
DuraBoard Minimum ¾" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft^2 or Insta-Stik adhesive applied in continuous ¾" to 1" wide beads at a maximum spacing of 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. 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 Paraglas adhered to the insulation with approved mopping asphalt at an application rate of 20-25 lbs./sq. See General Limitation #4.

Ply Sheet: Paradiene 20 TG, 20 TG S, 20 HVTG, 20 HTTG or 20 EGTG, adhered by torch, or Paradiene 20, 20 FR, 20 HT, 20 HV or 20 EG adhered with approved mopping asphalt at an application rate of 20-25 lbs./sq. or with PA 311 adhesive. See General Limitation #4.

Membrane: Paradiene 30 FR or 30 HTFR adhered in approved mopping asphalt or PA 311 adhesive, or Paradine 20 PR, PRTG, Teranap, Paradiene 30 FRTG or 30 HTFRTG adhered by torch.

Note: **Refer to manufacturer's specifications for specific application requirements.**

Maximum Design Pressure: -157.5 psf (using Dens Deck) (See General Limitation #9)

-112.5 psf (using DuraBoard) (See General Limitation #9)

Membrane Type: SBS Foil

Deck Type 3I: Concrete Decks, Insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(6): All layers of insulation adhered to deck with approved asphalt or adhesive.

All General and System limitations apply.

Base Insulation Layer (Optional)	**Insulation Fasteners**	**Fastener Density/ft^2**
One or more layers of any of the following insulations:		
Multimax, FA, H-Shield Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners**	**Fastener Density/ft^2**
Dens Deck Minimum ¼" thick	**N/A**	**N/A**
DuraBoard Minimum ¾" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft^2 or Insta-Stik adhesive applied in continuous ¾" to 1" wide beads at a maximum spacing of 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. 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 Paraglas adhered to the insulation with approved mopping asphalt at an application rate of 20-25 lbs./sq. See General Limitation #4.
Ply Sheet:	IREX 30, IREX 40 or IREX HT, adhered in approved mopping asphalt at an application rate of 20-25 lbs./sq.
Membrane:	Veral adhered in approved mopping asphalt or by torch.
Note:	**Refer to manufacturer's specifications for specific application requirements.**
Maximum Design Pressure:	-157.5 psf (using Dens Deck) (See General Limitation #9)
	-112.5 psf (using DuraBoard) (See General Limitation #9)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(7): All layers of insulation adhered to deck with approved asphalt or adhesive.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	**Insulation Fasteners**	**Fastener Density/ft^2**
ENRGY-2 **Minimum 1.5" thick**	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners**	**Fastener Density/ft^2**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
High Density Wood Fiberboard **Minimum ½" thick**	**N/A**	**N/A**
Dens Deck **Minimum ¼" thick**	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered to the deck in full mopping of approved 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. 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 used as a top layer shall be placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) One or more plies Paraglas adhered in full moppings of approved asphalt applied within the EVT range and at a rate of 20-25 lbs/sq.

Ply Sheet: Paradiene 20, 20 FR, 20 HT, 20 HV or 20 EG adhered in full mopping of asphalt applied within the EVT range and at a rate of 20-25 lbs/sq or with PA 311 adhesive or Paradiene 20 TG, 20 TG S, 20 HVTG, 20 HTTG or 20 EGTG, adhered by torch.

Membrane: Paradiene 30 FR or 30HTFR adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-25 lbs/sq or PA 311 adhesive or Paradiene 30 FRTG, or 30 HTFRTG adhered by torch.

Note: **Refer to manufacturer's specifications for specific application requirements.**

Maximum Design Pressure:
-240 psf (using Perlite) (See General Limitation #9)
-370 psf (using Dens Deck) (See General Limitation #9)
-375 psf (using High Density Wood Fiberboard) (See General Limitation #9)

Membrane Type: SBS Foil

Deck Type 3I: Concrete Decks, Insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(8): All layers of insulation adhered to deck with approved asphalt or adhesive.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	**Insulation Fasteners**	**Fastener Density/ft^2**
ENRGY-2 **Minimum 1.5" thick**	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners**	**Fastener Density/ft^2**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
High Density Wood Fiberboard **Minimum ½" thick**	**N/A**	**N/A**
Dens Deck **Minimum ¼" thick**	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered to the deck in full mopping of approved 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. 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 used as a top layer shall be placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) One or more plies Paraglas adhered in full moppings of approved asphalt applied within the EVT range and at a rate of 20-25 lbs/sq.

Ply Sheet: Paradiene 20, 20 FR, 20 HT, 20 HV or 20 EG adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-25 lbs/sq or with PA 311 adhesive or Paradiene 20 TG, 20 TS S, 20 HVTG, 20 HTTG or 20 EGTG, adhered by torch.

Membrane: Veral adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-25 lbs/sq. or adhered by torch.

Note: **Refer to manufacturer's specifications for specific application requirements.**

Maximum Design Pressure:
-240 psf (using Perlite) (See General Limitation #9)
-370 psf (using Dens Deck) (See General Limitation #9)
-375 psf (using High Density Wood Fiberboard) (See General Limitation #9)

Membrane Type: SBS

Deck Type 3: Concrete Decks, Non-insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(1): Optional vented base sheet, loose laid, followed by asphalt or torch applied ply sheet.

All General and System limitations apply.

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

Base Sheet: (Optional) One ply of Paravent or Paravent FS loose laid and lapped a minimum of 1".

Ply Sheet: Paradiene 20 TG, 20 TG S, 20 HVTG, 20 HTTG, or 20 EGTG adhered by torch, or Paradiene 20, 20 FR, 20 HT, 20 HV or 20 EG adhered with approved mopping asphalt at an application rate of 20-25 lbs./sq. or with PA 311 adhesive.

Membrane: Paradiene 30 FR or 30 HTFR, adhered with approved mopping asphalt at an application rate of 20-25 lbs./sq. or PA 311 adhesive; or Paradine 20 PR, PRTG, Teranap, Paradiene 30 FRTG or 30 HTFRTG, adhered by torch

Note: **Refer to manufacturer's specifications for specific application requirements.**

Surfacing: None

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

Membrane Type: SBS Foil

Deck Type 3: Concrete Decks, Non-insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(2): Optional vented base sheet, loose laid, followed by asphalt or torch applied ply sheet.

All General and System limitations apply.

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

Base Sheet:	(Optional) Paravent or Paravent FS loose laid and lapped a minimum of 1"
Ply Sheet:	IREX 30, IREX 40 or IREX HT adhered in approved mopping asphalt at an application rate of 20-25 lbs./sq. or by torch.
Membrane:	Veral adhered in approved mopping asphalt or by torch
Note:	**Refer to manufacturer's specifications for specific application requirements.**
Surfacing:	None
Maximum Design Pressure:	-120 psf (See General Limitation #9)

Membrane Type: SBS

Deck Type 3: Concrete Decks, Non-insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(3): Membrane adhered with asphalt or torch applied.

All General and System limitations apply.

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

Base Sheet: (Optional) One or more plies Paraglas adhered in full moppings of approved asphalt applied within the EVT range and at a rate of 20-25 lbs/sq.

Ply Sheet: Paradiene 20, 20 FR, 20 HT, 20 HV or 20 EG adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-25 lbs/sq or with PA 311 adhesive or Paradiene 20 TG, 20 TG S, 20 HVTG, 20 HTTG or 20 EGTG, adhered by torch.

Membrane: Paradiene 30 FR or 30HTFR adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-25 lbs/sq or PA 311 adhesive or Paradiene 30 FRTG, or 30 HTFRTG adhered by torch.

Note: **Refer to manufacturer's specifications for specific application requirements.**

Surfacing: None

Maximum Design Pressure: -230 psf (See General Limitation #9)

Membrane Type: SBS Foil

Deck Type 3: Concrete Decks, Non-insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(4): Membrane adhered with asphalt or torch applied.

All General and System limitations apply.

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

Base Sheet:	(Optional) One or more plies Paraglas adhered in full moppings of approved asphalt applied within the EVT range and at a rate of 20-25 lbs/sq.
Ply Sheet:	Paradiene 20, 20 FR, 20 HT, 20 HV or 20 EG adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-25 lbs/sq or with PA 311 adhesive or Paradiene 20 TG, 20 TG S, 20 HVTG, 20 HTTG or 20 EGTG, adhered by torch.
Membrane:	Veral adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-25 lbs/sq. or adhered by torch.
Note:	**Refer to manufacturer's specifications for specific application requirements.**
Surfacing:	None
Maximum Design Pressure:	-230 psf (See General Limitation #9)

Membrane Type: SBS

Deck Type 3: Concrete Decks, Non-insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(5): Membrane adhered with asphalt or torch applied.

All General and System limitations apply.

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

Base Sheet: None.

Ply Sheet: Paradiene 20 TG, 20 HVTG, 20 HTTG or 20 EGTG, adhered by torch

Membrane: Paradiene 30 FR or 30HTFR adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-25 lbs/sq or PA 311 adhesive or Paradiene 30 FRTG, or 30 HTFRTG adhered by torch.

Note: **Refer to manufacturer's specifications for specific application requirements.**

Surfacing: None

Maximum Design Pressure: -402.5 psf (See General Limitation #9)

Membrane Type: SBS Foil

Deck Type 3: Concrete Decks, Non-insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(6): Membrane adhered with asphalt or torch applied.

All General and System limitations apply.

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

Base Sheet: None.

Ply Sheet: IREX 40 or IREX HT adhered by torch.

Membrane: Veral adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-25 lbs/sq or adhered by torch.

Note: **Refer to manufacturer's specifications for specific application requirements.**

Surfacing: None

Maximum Design Pressure: -402.5 psf (See General Limitation #9)

Membrane Type: SBS

Deck Type 3: Concrete Decks, Non-insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(7): Membrane adhered by torch.

All General and System limitations apply.

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

Ply Sheet: Paradiene 20 TS adhered by torch.

Membrane: Paradiene 30 FRTG, 30 HTFRTG, or Parafor 50 LT adhered by torch.

Note: **Refer to manufacturer's specifications for specific application requirements.**

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

Membrane Type: SBS

Deck Type 3: Concrete Decks, Non-insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(8): Membrane adhered by torch.

All General and System limitations apply.

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

Membrane: Paralosa TS adhered by torch.

Note: **Refer to manufacturer's specifications for specific application requirements.**

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

CONCRETE DECK SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117, calculations shall be signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant.
2. Veral may be applied in approved mopping asphalt at slopes ranging from ½":12" to 2½":12". Veral may be torched at any slope above ½":12".

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 Engineer, 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. **(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.)**

END OF THIS ACCEPTANCE