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

NOTICE OF ACCEPTANCE (NOA)

Mule-Hide Products Co., Inc.
1195 Prince Hall Drive
Beloit, WI 53511

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Mule-Hide Self-Adhered Roof System over Wood Decks

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

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

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

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

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

This NOA renews NOA #20-0902.19 and consists of pages 1 through 26.
The submitted documentation was reviewed by Alex Tigera.

ROOFING ASSEMBLY APPROVAL

Category:	Roofing
Sub-Category:	Modified Bitumen
Materials	SBS/APP/TPO
Deck Type:	Wood
Maximum Design Pressure	-112.5 psf

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
G2 Base Sheet	108’ x 36”	ASTM D 4601, Type II	Asphalt-coated fiberglass reinforced base sheet
Nail Base	65’ 2” x 3’ 3-3/8”	ASTM D 6163, Type I	SBS modified asphalt coated fiberglass reinforced base sheet.
SA Base Sheet	66’ 8” x 3’ 3-$^{3}/_{8}$”	ASTM D 6163, Type I	Self-adhered, fiberglass reinforced, SBS modified bitumen membrane with a self-adhering back face and a smooth top surface.
SA Base Sheet FR	66’ 8” x 3’ 3-3/8”	ASTM D 6163, Type I	Self-adhered, fire-rated, fiberglass reinforced, SBS modified bitumen membrane with a self-adhering back face and a smooth top surface.
Nail Base P	65’ 8” x 3’ 3-3/8”	ASTM D 6164, Type I	SBS modified asphalt coated polyester reinforced base sheet.
SA-SBS Cap Sheet	32’ 10” x 3’ 3-3/8”	ASTM D 6164, Type I	Self-adhered, fiberglass reinforced, SBS modified bitumen membrane with a self-adhering back face and a granule top surface.
SA-SBS Cap Sheet FR	32’ 10” x 3’ 3-3/8”	ASTM D 6164, Type I	Self-adhered, fire-rated, polyester reinforced, SBS modified bitumen membrane with a self-adhering back face and a granule top surface.
SA-SBS KoolCap®	32’ 10” x 3’ 3-$^{3}/_{8}$”	ASTM D 6164, Type I	Self-adhered, fiberglass reinforced, SBS modified bitumen membrane with a self-adhering back face and a granule top surface.
SA-SBS KoolCap® FR	32’ 10” x 3’ 3-$^{3}/_{8}$”	ASTM D 6164, Type I	Self-adhered, fire-rated, fiberglass reinforced, SBS modified bitumen membrane with a self-adhering back face and a granule top surface.
APP Torch Base/Cap	32’ 10” x 3’ 3-3/8”	ASTM D 6222	Torch applied, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a smooth or sanded top surface.
APP Torch S	32’ 10” x 3’ 3-3/8”	ASTM D 6222	Torch applied, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a smooth or sanded top surface.
SA-APP Cap Sheet	32’ 10” x 3’ 3-$^{3}/_{8}$”	ASTM D 6222, Type I	Self-adhered, polyester reinforced, APP modified bitumen membrane with a self-adhering back face and a granule top surface.

SA-APP Cap Sheet FR	32’ 10” x 3’ 3-3/8”	ASTM D 6222, Type I	Self-adhered, fire-rated, polyester reinforced, APP modified bitumen membrane with a self-adhering back face and a granule top surface.
APP Torch Base Premier	65’ 8” x 3’ 3-3/8”	ASTM D 6509, Type I	APP modified asphalt coated fiberglass reinforced base sheet.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
Mule-Hide Poly ISO 1	Polyisocyanurate foam insulation	Polyglass USA, Inc.
Poly ISO 2	Polyisocyanurate foam insulation	Polyglass USA, Inc.
ACFoam-II	Polyisocyanurate foam insulation	Atlas Roofing Corp
ACFoam-III	Polyisocyanurate foam insulation	Atlas Roofing Corp
Structodek High Density Fiberboard Roof Insulation	Wood fiber insulation board	Blue Ridge Fiberboard, Inc.
DensDeck, DensDeck Prime	Gypsum insulation board	Georgia-Pacific Gypsum LLC
H-Shield	Polyisocyanurate foam insulation	Hunter Panels, a division of Carlisle Construction Materials, LLC
H-Shield CG	Polyisocyanurate/perlite composite insulation	Hunter Panels, a division of Carlisle Construction Materials, LLC
ENRGY-3	Polyisocyanurate foam insulation	Johns Manville Corp.
Fesco Board	Expanded mineral fiber	Johns Manville Corp.
Multi-Max FA-3	Polyisocyanurate foam insulation	Rmax Operating, LLC.
SECUROCK Gypsum-Fiber Roof Board	Fiber reinforced coverboard	United States Gypsum Corporation

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Dekfast DF-#12-PH3	Insulation fastener for wood, steel and concrete decks		SFS Group USA, Inc.
2.	Dekfast DF-#14-PH3	Insulation fastener for wood, steel and concrete decks	Various	SFS Group USA, Inc.
3.	Dekfast DF-#15-PH3	Insulation fastener for wood, steel and concrete decks	Various	SFS Group USA, Inc.
4.	Dekfast PLT-H-2-7/8	Galvalume hex stress plate.	2 7/8" x 3 ¼”	SFS Group USA, Inc.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
5.	#14 Roofgrip	Insulation and membrane fastener	Various	OMG, Inc.
6.	Flat Bottom Metal Plate	A2-SS aluminized steel plate	3" square	OMG, Inc.
7.	Mule-Hide HDP Fastener	Insulation fastener for steel and wood decks		Mule-Hide Products Co., Inc.
8.	Mule-Hide 3" Metal Insulation Plate	Round Galvalume AZ50 steel plate	3.23 round 3" round	Mule-Hide Products Co., Inc.
9.	#12 Standard Roofgrip	Insulation fastener for wood, steel and concrete decks	Various	OMG, Inc.
10.	OMG 3 in. Ribbed Galvalume Plate (Flat)	Galvalume stress plate.	3" round	OMG, Inc.
11.	OMG 3" Galvalume Steel Plate	Galvalume stress plate.	3" round	OMG, Inc.
12.	Dekfast PLT-R-3	Galvalume stress plate.	3" round	SFS Group USA, Inc.
13.	Millennium One-Step Foamable Adhesive	A two component, low rise, polyurethane foam adhesive		H.B. Fuller Company
14.	Millennium One Step Green Foamable Insulation Adhesive	A two component, low rise, polyurethane foam adhesive		H.B. Fuller Company
15.	Millennium PG-1 Pump Grade Adhesive	A two component, low rise, polyurethane foam adhesive		H.B. Fuller Company
16.	PG 100	A penetrating solution of solvent and a blend of selected asphalts used to promote adhesion.	1, 3, 5, 50, 55 gal, tube or 17 oz. spray can	Polyglass USA, Inc.
17.	PG 350	A fibered rubberized adhesive designed for use with modified bitumen membranes.	1, 3, 5, 50, 55 gal. or tube	Polyglass USA, Inc.
18.	PG 400	A thick, fibered, rubberized flashing cement for use in dry or damp conditions.	1, 3, 5, 50, 55 gal. or tube	Polyglass USA, Inc.
19.	PG 425	A thick, fibered, rubberized flashing cement for use in dry or damp conditions.	1, 3, 5, 50, 55 gal. or tube	Polyglass USA, Inc.
20.	PG 450	A thick, fibered, rubberized flashing cement.	1, 3, 5, 50, 55 gal. or tube	Polyglass USA, Inc.
21.	PG 500	A thick, fibered, rubberized flashing cement for use with modified bitumen membranes.	1, 3, 5, 50, 55 gal. or tube	Polyglass USA, Inc.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
22.	POLYPLUS 35	A fibered rubberized adhesive designed for use with modified bitumen membranes.	1, 3, 5, 50, 55 gal. or tube	Polyglass USA, Inc.
23.	POLYPLUS 45	A thick, fibered, rubberized flashing cement.	1, 3, 5, 50, 55 gal. or tube	Polyglass USA, Inc.
24.	POLYPLUS 50	A thick, fibered, rubberized flashing cement for use with modified bitumen membranes.	1, 3, 5, 50, 55 gal. or tube	Polyglass USA, Inc.
25.	WB-3000	A low-VOC, water-based acrylic primer to enhance adhesion of self-adhered membranes.	5 gallon pail	Polyglass USA, Inc.

APPROVED SURFACING:

TABLE 4

Chosen components must be applied according to manufacturer's application instructions.

Number	Product Name	Product Description	Application Rate	Specification	Manufacturer
1.	Gravel	To be installed in a flood coat of approved asphalt at 60 lbs/sq	400 lbs/sq	N/A	Generic
2.	Slag	To be installed in a flood coat of approved asphalt at 60 lbs/sq	300 lbs/sq	N/A	Generic
3.	KM Acryl 15	A premium white or tinted elastomeric acrylic based roof coating (water-based). A polyester fabric may be used for reinforcement with this coating.	1-1½ gal/sq	ASTM D6083	Polyglass USA, Inc.
4.	KM Acryl 15 QS	A premium white or tinted quick setting, elastomeric acrylic based roof coating (water-based). A polyester fabric may be used for reinforcement with this coating.	1-1½ gal/sq	ASTM D6083	Polyglass USA, Inc.
5.	KM Acryl 25	A premium white or tinted elastomeric acrylic based roof coating (water-based). A polyester fabric may be used for reinforcement with this coating.	1-1½ gal/sq	ASTM D6083	Polyglass USA, Inc.

APPROVED SURFACING:

TABLE 4

Chosen components must be applied according to manufacturer's application instructions.

Number	Product Name	Product Description	Application Rate	Specification	Manufacturer
6.	KM Acryl 25 QS	A premium white or tinted quick setting, elastomeric acrylic based roof coating (water-based). A polyester fabric may be used for reinforcement with this coating.	1-1½ gal/sq	ASTM D6083	Polyglass USA, Inc.
7.	KM-PS #220	A single component, solvent, white or tinted, silicone coating.	1.25 gal/sq	ASTM D6694	Polyglass USA, Inc.
8.	KM-PS #250	A premium grade high solids, white or tinted, single component, moisture cure, fluid applied silicone coating	1.25 gal/sq	ASTM D6694	Polyglass USA, Inc.
9.	PG 300	An asphalt cutback fibered roof coating. May be applied by brush or spray equipment to rejuvenate aged BUR	1½-2 gal/sq	ASTM D4479	Polyglass USA, Inc.
10.	PG 600	Non-fibered aluminum roof coating.	½-1 gal/sq	ASTM D2824 Type I	Polyglass USA, Inc.
11.	PG 650	Fibered aluminum roof coating.	1½-2 gal/sq	ASTM D2824 Type III	Polyglass USA, Inc.
12.	PG 700	A premium white or tinted elastomeric acrylic based roof coating (water-based). A polyester fabric may be used for reinforcement with this coating.	1-1½ gal/sq	ASTM D6083	Polyglass USA, Inc.
13.	PG 700 QS	A premium white or tinted quick setting, elastomeric acrylic based roof coating (water-based). A polyester fabric may be used for reinforcement with this coating.	1-1½ gal/sq	ASTM D6083	Polyglass USA, Inc.
14.	PG 800	An asphalt based, non-fibered clay emulsion	3 gal/sq in two coats	ASTM D1227	Polyglass USA, Inc.
15.	PolyBrite 70	A premium white or tinted elastomeric acrylic based roof coating (water-based). A polyester fabric may be used for reinforcement with this coating.	1-1½ gal/sq	ASTM D6083	Polyglass USA, Inc.

APPROVED SURFACING:

TABLE 4

Chosen components must be applied according to manufacturer's application instructions.

Number	Product Name	Product Description	Application Rate	Specification	Manufacturer
16.	PolyBrite 70 QS	A premium white or tinted quick setting, elastomeric acrylic based roof coating (water-based). A polyester fabric may be used for reinforcement with this coating.	1-1½ gal/sq	ASTM D6083	Polyglass USA, Inc.
17.	PolyBrite 90	A premium grade high solids, white or tinted, single component, moisture cure, fluid applied silicone coating.	1.25 gal/sq	ASTM D6694	Polyglass USA, Inc.
18.	PolyBrite 95	A single component, white or tinted, solvent, moisture cure silicone coating.	1.25 gal/sq	ASTM D6694	Polyglass USA, Inc.
19.	POLYPLUS 60	Non-fibered aluminum roof coating.	½-1 gal/sq	ASTM D2824 Type I	Polyglass USA, Inc.
20.	POLYPLUS 65	Fibered aluminum roof coating.	1½-2 gal/sq	ASTM D2824 Type III	Polyglass USA, Inc.

EVIDENCE SUBMITTED:

Test Agency	Test Name/Report	Report No.	Date
Factory Mutual Research Corporation	4470	2W7A7.AM	08.04.94
	4450	2D5A9.AM	06.22.99
	4470	3000857	01.12.00
	4470	3004091	01.12.00
	4470	3001334	02.15.00
	4470	3014692	08.05.03
	4450	3014751	08.27.03
	4450	3019317	06.30.04
	4470	3024311	11.01.06
	4470	3012321	07.29.07
	4470	3036182	07.31.09
	4470	RR202591	10.22.15
Trinity | ERD	TAS 114	11752.09.99-1	02.08.00
	TAS 114	11751.05.03	05.30.03
	TAS 114	02762.03.05	03.30.05
	TAS 114	02764.09.05	09.09.05
	TAS 114	P1739.01.07	01.23.07
	TAS 114	P1734.07.06-R1	02.27.07
	TAS 114 & FM 4470	P7860SC.11.07	11.30.07
	TAS 114 (H)	P13760.09.09	09.10.09
	FM 4470 & TAS 114	P33970.03.11	03.15.11
	TAS 114	P1738.02.07-R2	04.29.13
	TAS 114 & TAS 117 (B)	11757.04.01-1-R1	04.30.13
	TAS 114 & FM 4474	P41630.08.13	08.06.13
	TAS 114 & FM 4474	PLYG-SC8905.05.16-1	05.17.16
	TAS 114 & TAS 117 (B)	11757.12.00-1-R2	04.05.17
PRI Construction Materials Technologies	TAS 117(B)	PUSA-202-02-01	05.08.17
	FM 4470 & TAS 114	PUSA-202-02-02	05.23.17

APPROVED ASSEMBLIES:

Membrane Type: SBS/APP

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank, fastened at 24" spans with #8 wood screws at 6" o.c.

System Type A(1): All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently adhered to insulation.

All General and System Limitations apply.

Anchor Sheet: One ply of Nail Base, APP Torch Base/Cap*, APP Torch S* or G2 Base Sheet, fastened to the deck as described below:
**with OMG fasteners and Flat Bottom Metal Plates*.

Fastening #1: Attach base sheet using 11 ga. annular ring shank and 1-5/8" diameter tin caps spaced 8" o.c. in a 4" lap and 8" o.c. in three equally spaced staggered rows in the center of the sheet.

Fastening #2: Attach base sheet using OMG #14 Roofgrip fasteners and Flat Bottom Metal Plates, Dekfast DF-#14-PH3 with Dekfast PLT-H-2-7/8 plates or Mule-Hide HDP Fasteners with Mule-Hide 3" Metal Insulation Plates, spaced 12" o.c. in a 4" lap and 12" o.c. in two equally spaced staggered rows in the center of the sheet.

One or more of the following

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Poly ISO 2, H-Shield, Mule-Hide Poly ISO 1, ACFoam-II, ACFoam-III, H-Shield, Multi-Max FA-3, ENRGY-3 Minimum 1.5" 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.

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

Note: Apply top layer of insulation in a full mopping of any approved mopping 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.

Primer (Optional): Apply WB-3000 at 1 gal. per 300 sq. ft.

Base Sheet: One ply of SA Base Sheet or SA Base Sheet FR, self-adhered.

Ply Sheet: (Optional)	One or more plies of SA Base Sheet, SA Base Sheet FR, self-adhered.
Membrane:	One ply of SA-SBS Cap Sheet, SA-SBS Cap Sheet FR, SA-APP Cap Sheet, SA-APP Cap Sheet FR, SA-SBS KoolCap® or SA-SBS KoolCap® FR, self-adhered.
Surfacing: (Optional)	Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.
Maximum Design Pressure:	-52.5 psf; (See general limitation #7.)

Membrane Type: SBS/APP

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank, fastened at 24" spans with 8d common nails at 4" o.c. or #8 wood screws at 6" o.c.

System Type A(2): All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently adhered to insulation.

All General and System Limitations apply.

Anchor Sheet: One ply of G2 Base Sheet fastened to the deck as described below:

Fastening: Attach base sheet using 11 ga. Annular ring shank and 1-5/8" diameter tin caps spaced 8" o.c. in a 4" lap and 8" o.c. in three equally spaced staggered rows in the center of the sheet.

One of more of the following:

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Poly ISO 2, H-Shield, Mule-Hide Poly ISO 1, ACFoam-II, ACFoam-III, H-Shield, Multi-Max FA-3, ENRGY-3 Minimum 1" 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.

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Dens Deck, Dens Deck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	**N/A**	**N/A**

Note: Apply top layer of insulation in a full mopping of any approved mopping 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.

Primer: (Optional) Apply WB-3000 at 1 gal. per 300 sq. ft.

Base Sheet: One ply of SA Base Sheet or SA Base Sheet FR, self-adhered.

Ply Sheet: (Optional) One or more plies of SA Base Sheet or SA Base Sheet FR, self-adhered.

Membrane: One ply of SA-SBS Cap Sheet, SA-SBS Cap Sheet FR, SA-APP Cap Sheet, SA-APP Cap Sheet FR, SA-SBS KoolCap® or SA-SBS KoolCap® FR, self-adhered.

Surfacing: (Optional)	Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.
Maximum Design Pressure:	-52.5 psf; (See general limitation #7.)

Membrane Type: SBS/APP

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank fastened at 24" spans with #8 wood screws at 6" o.c.

System Type A(3): All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently adhered to insulation.

All General and System Limitations apply.

Anchor Sheet: One ply of Nail Base or Nail Base P, fastened as below:

Fastening: 12 ga. Annular ring shank nails and 1-5/8" tin-caps attached 6" o.c. in 4" lap and 6" o.c. in four equally spaced staggered rows.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, Poly ISO 2, ACFoam-III, H-Shield, Mule-Hide Poly ISO 1, H-Shield CG, Multi-Max FA-3, ENRGY 3 Minimum 1" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the anchor sheet with Millennium One-Step Foamable Adhesive, Millennium One Step Green Foamable Insulation Adhesive or Millennium PG-1 Pump Grade Adhesive applied over rows of tin-caps in continuous rows 7" 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 may be used as a top layer placed with the polyisocyanurate side facing down.

Primer: (Optional) Apply WB-3000 at 1 gal. per 300 sq. ft.

Base Sheet: One ply of SA Base Sheet or SA Base Sheet FR, self-adhered.

Ply Sheet: (Optional) One or more plies of SA Base Sheet or SA Base Sheet FR, self-adhered.

Membrane: One ply of SA-SBS Cap Sheet, SA-SBS Cap Sheet FR, SA-APP Cap Sheet, SA-APP Cap Sheet FR, SA-SBS KoolCap® or SA-SBS KoolCap® FR, self-adhered.

Surfacing: (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.

Maximum Design Pressure: -60.0 psf; (See general limitation #7.)

Membrane Type:	SBS/APP
Deck Type 1I:	Wood, Insulated
Deck Description:	Min. $^{19}/_{32}$" plywood ($^{15}/_{32}$" for re-roof) or wood plank, fastened at 24" spans with 8d common nails at 6" o.c.
System Type C(1):	All layers of insulation are mechanically attached to roof deck. Membranes subsequently adhered to insulation.

All General and System Limitations apply.

One or more of the following

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Any approved Polyisocyanurate listed in Table 2 Minimum 1.0" thick	**N/A**	**N/A**

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

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	**2 with 4 or 12; 5 with 6, 10 or 11; 7 with 8**	**1:2 ft²**
DensDeck Prime Minimum ¼" thick	**2 with 4; 5 with 6 or 11; 7 with 8**	**1:2 ft²**

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.

Primer: (Optional)	Apply WB-3000 at 1 gal. per 300 sq. ft.
Base Sheet:	One ply of SA Base Sheet or SA Base Sheet FR, self-adhered.
Ply Sheet: (Optional)	One or more plies of SA Base Sheet or SA Base Sheet FR, self-adhered.
Membrane:	One ply of SA-SBS Cap Sheet FR, SA-APP Cap Sheet FR or SA-SBS KoolCap® FR, self-adhered.
Surfacing: (Optional)	Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.
Maximum Design Pressure:	-45.0 psf; (See General limitation #7.)

Membrane Type:	SBS/APP
Deck Type 1I:	Wood, Insulated
Deck Description:	$^{19}/_{32}$" or greater plywood or wood plank, fastened at 24" spans with 8d common nails or wood screws at 4" o.c.
System Type C(2):	All layers of insulation are mechanically attached to roof deck. Membranes subsequently adhered to insulation.

All General and System Limitations apply.

One or more of the following

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Any approved Polyisocyanurate listed in Table 2 Minimum 1.5" thick	**N/A**	**N/A**

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

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Structodek High Density Fiberboard Roof Insulation Minimum ½" thick	**2 with 4**	**1:1.33 ft²**
DensDeck Minimum ¼" thick	**2 with 4**	**1:1.33 ft²**

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.

Primer: (Optional)	Apply WB-3000 at 1 gal. per 300 sq. ft. to DensDeck prior to application of self-adhered base sheets.
Base Sheet:	One ply of SA Base Sheet or SA Base Sheet FR, self-adhered.
Ply Sheet: (Optional)	One or more plies of SA Base Sheet or SA Base Sheet FR, self-adhered.
Membrane:	One ply of SA-SBS Cap Sheet, SA-SBS Cap Sheet FR, SA-APP Cap Sheet, SA-APP Cap Sheet FR, SA-SBS KoolCap® or SA-SBS KoolCap® FR, self-adhered.
Surfacing: (Optional)	Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.
Maximum Design Pressure:	-67.5 psf; (See General limitation #7.)

Membrane Type:	SBS/APP
Deck Type 1I:	Wood, Insulated
Deck Description:	$^{19}/_{32}$" or greater plywood or wood plank, fastened at 24" spans with 8d common nails at 4" o.c.
System Type C(3):	All layers of insulation are mechanically attached to roof deck. Membranes subsequently adhered to insulation.

All General and System Limitations apply.

One or more layers of the following:

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Any approved Polyisocyanurate listed in Table 2 Minimum 1.5" thick	**N/A**	**N/A**

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

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Structodek High Density Fiberboard Roof Insulation Minimum ½" thick	**2 with 4**	**1:1.33 ft²**
DensDeck Minimum ¼" thick	**2 with 4**	**1:1.33 ft²**

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.

Primer: (Optional)	Apply WB-3000 at 1 gal. per 300 sq. ft. to DensDeck prior to application of self-adhered base sheets.
Base Sheet:	One ply of SA Base Sheet or SA Base Sheet FR, self-adhered.
Ply Sheet: (Optional)	One or more plies of SA Base Sheet or SA Base Sheet FR, self-adhered.
Membrane:	One ply of SA-SBS Cap Sheet, SA-SBS Cap Sheet FR, SA-APP Cap Sheet, SA-APP Cap Sheet FR, SA-SBS KoolCap® or SA-SBS KoolCap® FR, self-adhered.
Surfacing: (Optional)	Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.
Maximum Design Pressure:	-67.5 psf; (See General limitation #7.)

Membrane Type: SBS/APP

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank, fastened at 24" spans with #8 wood screws at 6" o.c.

System Type D(1): All insulation is loosed laid with preliminary attachment to deck. Base sheet is subsequently mechanically fastened through insulation to the roof deck. Membranes subsequently adhered.

All General and System Limitations apply.

One or more layers of the following:

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Any approved Polyisocyanurate listed in Table 2 Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Fesco Board Minimum ¾" thick	**N/A**	**N/A**
Structodek High Density Fiberboard Roof Insulation Minimum ½" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane 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.

Base Sheet: One ply of Nail Base or Nail Base P, fastened to the deck as described below:

Fastening: Attach base sheet using OMG #14 Roofgrip fasteners and Flat Bottom Metal Plates spaced 12" o.c. in a 4" lap and 12" o.c. in two equally spaced staggered rows in the center of the sheet.

Ply Sheet: One or more plies of SA Base Sheet or SA Base Sheet FR, , self-adhered.

Membrane: One ply of SA-SBS Cap Sheet, SA-SBS Cap Sheet FR, SA-APP Cap Sheet, SA-APP Cap Sheet FR, SA-SBS KoolCap® or SA-SBS KoolCap® FR, self-adhered.

Surfacing: (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.

Maximum Design Pressure: -60.0 psf; (See General limitation #7.)

Membrane Type:	SBS/APP
Deck Type 1:	Wood, Non-Insulated
Deck Description:	$^{19}/_{32}$" or greater plywood or wood plank, fastened at 24” spans with 8d common nails at 4” o.c. or #8 wood screws at 6” o.c.
System Type E(1):	Base sheet is mechanically attached to roof deck. Membranes subsequently adhered.

All General and System Limitations apply.

Base Sheet:	One ply of Nail Base or Nail Base P fastened to the deck as described below:
Fastening:	Attach base sheet using 11 ga. annular ring shank nails and 1-5/8” diameter tin caps spaced 8” o.c. in a 4” lap and 8” o.c. in three equally spaced staggered rows in the center of the sheet.
Ply Sheet:	One or more plies of SA Base Sheet or SA Base Sheet FR, self-adhered.
Membrane:	One ply of SA-SBS Cap Sheet, SA-SBS Cap Sheet FR, SA-APP Cap Sheet, SA-APP Cap Sheet FR, SA-SBS KoolCap® or SA-SBS KoolCap® FR, self-adhered.
Surfacing: (Optional)	Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.
Maximum Design Pressure:	-52.5 psf; (See General limitation #7.).

Membrane Type:	SBS/APP
Deck Type 1:	Wood, Non-Insulated
Deck Description:	$^{19}/_{32}$" or greater plywood or wood plank, fastened at 24” spans with 8d ring shank nails at 6” o.c. at edges and intermediate supports.
System Type E(2):	Base sheet is mechanically attached to roof deck. Membranes subsequently adhered.

All General and System Limitations apply.

Base Sheet:	One ply of Nail Base or APP Torch Base Premier fastened to the deck as described below:
Fastening:	Attach base sheet using 11 ga. annular grooved shank and 1” diameter caps spaced 6” o.c. in a 3” lap and 6” o.c. in four equally spaced staggered center rows.
Membrane:	One ply of SA-SBS Cap Sheet, SA-SBS Cap Sheet FR, SA-APP Cap Sheet, SA-APP Cap Sheet FR, SA-SBS KoolCap® or SA-SBS KoolCap® FR, self-adhered.
Surfacing: (Optional)	Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.
Maximum Design Pressure:	-52.5 psf; (See General Limitation #7)

Membrane Type:	SBS/APP
Deck Type 1:	Wood, Non-Insulated
Deck Description:	$^{19}/_{32}$" or greater plywood or wood plank, fastened at 24” spans with 8d common nails at 4” o.c. or #8 wood screws at 6” o.c
System Type E(3):	Base sheet is mechanically attached to roof deck. Membranes subsequently adhered.

All General and System Limitations apply.

Base Sheet:	One ply of Nail Base or Nail Base P fastened to the deck as described below:
Fastening:	Attach base sheet using OMG #14 Roofgrip fasteners and Flat Bottom Metal Plates spaced 12” o.c. in a 4” lap and 12” o.c. in two equally spaced staggered rows in the center of the sheet.
Ply Sheet:	One or more plies of SA Base Sheet, SA Base Sheet FR, self-adhered.
Membrane:	One ply of SA-SBS Cap Sheet, SA-SBS Cap Sheet FR, SA-APP Cap Sheet, SA-APP Cap Sheet FR, SA-SBS KoolCap® or SA-SBS KoolCap® FR, self-adhered.
Surfacing: (Optional)	Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.
Maximum Design Pressure:	-52.5 psf; (See General Limitation #7)

Membrane Type:	SBS/APP
Deck Type 1:	Wood, Non-Insulated
Deck Description:	$^{19}/_{32}$" or greater plywood or wood plank, fastened at 24” spans with 8d common nails at 4” o.c. or #8 wood screws at 6” o.c.
System Type E(4):	Base sheet is mechanically attached to roof deck. Membranes subsequently adhered.

All General and System Limitations apply.

Base Sheet:	One ply of Nail Base or Nail Base P fastened to the deck as described below:
Fastening:	Attach base sheet using 11 ga. annular ring shank nails and 1-5/8” diameter tin caps spaced 8” o.c. in a 4” lap and 8” o.c. in three equally spaced staggered rows in the center of the sheet.
Ply Sheet:	One or more plies of SA Base Sheet or SA Base Sheet FR, self-adhered.
Membrane:	One ply of SA-SBS Cap Sheet, SA-SBS Cap Sheet FR, SA-APP Cap Sheet, SA-APP Cap Sheet FR, SA-SBS KoolCap® or SA-SBS KoolCap® FR, self-adhered.
Surfacing: (Optional)	Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.
Maximum Design Pressure:	-52.5 psf; (See General Limitation #7)

Membrane Type: SBS/APP

Deck Type 1: Wood, Non-Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank, fastened at 24" spans with #8 wood screws at 6" o.c.

System Type E(5): Base sheet is mechanically attached to roof deck. Membranes subsequently adhered.

All General and System Limitations apply.

Base Sheet: One ply of Nail Base or APP Torch Base Premier fastened to the deck as described below:

Fastening: Attach base sheet using OMG #14 Roofgrip fasteners and Flat Bottom Metal Plates, Dekfast DF-#14-PH3 with Dekfast PLT-H-2-7/8, or Mule-Hide HDP Fasteners with Mule-Hide 3" Metal Insulation Plates, spaced 12" o.c. in a 4" lap and 12" o.c. in two equally spaced staggered rows in the center of the sheet.

Ply Sheet: One or more plies of SA Base Sheet or SA Base Sheet FR, self-adhered.

Membrane: One ply of SA-SBS Cap Sheet, SA-SBS Cap Sheet FR, SA-APP Cap Sheet, SA-APP Cap Sheet FR, SA-SBS KoolCap® or SA-SBS KoolCap® FR, self-adhered.

Surfacing: (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.

Maximum Design Pressure: -60.0 psf; (See General limitation #7.).

Membrane Type: SBS/APP

Deck Type 1: Wood, Non-Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank, fastened to supports spaced 24" o.c. and to blocking members spaced 48" o.c. with TruFast TP #10x2-7/8" screws spaced 6" o.c.

System Type E(6): Base sheet is mechanically attached to roof deck. Membranes subsequently adhered.

All General and System Limitations apply.

Base Sheet: One ply of Nail Base or Nail Base P fastened to the deck as described below:

Fastening: Attach base sheet using 12 ga. annular ring shank nails and 1-5/8" diameter tin caps spaced 4" o.c. in a 4" lap and 4" o.c. in four equally spaced staggered rows in the center of the sheet.

Ply Sheet: One or more plies of SA Base Sheet or SA Base Sheet FR, self-adhered.

Membrane: One ply of SA-SBS Cap Sheet, SA-SBS Cap Sheet FR, SA-APP Cap Sheet, SA-APP Cap Sheet FR, SA-SBS KoolCap® or SA-SBS KoolCap® FR, self-adhered.

Surfacing: (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.

Maximum Design Pressure: -97.5 psf; (See General Limitation #7)

Membrane Type:	SBS/APP
Deck Type 1:	Wood, Non-Insulated
Deck Description:	$^{19}/_{32}$" or greater plywood or wood plank, fastened to supports spaced 24” o.c. and to blocking members spaced 48” o.c. with #10x3” wood screws spaced 6” o.c
System Type E(7):	Base sheet is mechanically attached to roof deck. Membranes subsequently adhered.

All General and System Limitations apply.

Base Sheet:	One ply of Nail Base or Nail Base P fastened to the deck as described below:
Fastening:	Attach base sheet using 12 ga. ring shank nails and tin caps spaced 4” o.c. in a 4” lap and 4” o.c. in four equally spaced staggered rows in the center of the sheet.
Ply Sheet:	One or more plies of SA Base Sheet or SA Base Sheet FR, self-adhered.
Membrane:	One ply of SA-SBS Cap Sheet, SA-SBS Cap Sheet FR, SA-APP Cap Sheet, SA-APP Cap Sheet FR, SA-SBS KoolCap® or SA-SBS KoolCap® FR, self-adhered.
Surfacing: (Optional)	Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.
Maximum Design Pressure:	-97.5 psf; With SA Base Sheet or SA Base Sheet FR (See General limitation #7.) -112.5 psf; With all other base sheet options (See General limitation #7.)

Membrane Type:	SBS/APP
Deck Type 1:	Wood, Non-Insulated
Deck Description:	$^{19}/_{32}$" or greater plywood or wood plank, fastened to supports spaced 24” o.c. with #8x3” wood screws spaced 6” o.c.
System Type E(8):	Base sheet is mechanically attached to roof deck. Membranes subsequently adhered.

All General and System Limitations apply.

Base Sheet:	One ply of Nail Base or Nail Base P fastened to the deck as described below:
Fastening:	Attach base sheet using 12 ga. annular ring shanked nails and 1-5/8” tin-caps 6” o.c. in 4” lap and 6” o.c. in four equally spaced staggered rows. Tin-caps are primed with PG 100.
Ply Sheet:	One or more plies of SA Base Sheet or SA Base Sheet FR, self-adhered.
Membrane:	One ply of SA-SBS Cap Sheet, SA-SBS Cap Sheet FR, SA-APP Cap Sheet, SA-APP Cap Sheet FR, SA-SBS KoolCap® or SA-SBS KoolCap® FR, self-adhered.
Surfacing: (Optional)	Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.
Maximum Design Pressure:	-97.5 psf; With SA Base Sheet or SA Base Sheet FR (See General limitation #7.) -112.5 psf; With all other base sheet options (See General limitation #7.)

WOOD DECK SYSTEM LIMITATIONS:

1. A slip sheet is required with Ply 4 and Ply 6 when used as a mechanically fastened base or anchor sheet.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.
   Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE