



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
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www.miamidade.gov/economy

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 Modified Bitumen Roof System 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 revises NOA #19-0617.08 and consists of pages 1 through 57.
The submitted documentation was reviewed by Alex Tigera.



NOA No.: 20-0902.21
Expiration Date: 07/13/24
Approval Date: 10/22/20
Page 1 of 57

ROOFING ASSEMBLY APPROVAL

Category:	Roofing
Sub-Category:	Modified Bitumen
Materials	SBS/APP
Deck Type:	Concrete
Maximum Design Pressure:	-622.5 psf

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
G2 Base Sheet	108' x 36"	ASTM D 4601 Type II	Asphalt-coated fiberglass reinforced base sheet
Nail Base	65' 8" x 3' 3-3/8"	ASTM D 6163	SBS modified asphalt coated fiberglass reinforced base sheet.
SA Base Sheet	66' 8" x 3' 3-3/8"	ASTM D 6163	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	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	SBS modified asphalt coated polyester reinforced base sheet.
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 G	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 granule top surface.
SA-SBS Cap Sheet	32' 106" x 3' 3-3/8"	ASTM D 6164	Self-adhered, fiberglass reinforced, SBS modified bitumen membrane with a self-adhering back face and a granule top surface.
APP Torch S Premier	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 G Premier	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 granule top surface.
APP Torch G FR Premier	32' 10" x 3' 3-3/8"	ASTM D 6222	Torch applied, fire-rated, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a granule top surface and fire retardant chemistry.
APP Torch G KoolCap	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 granule top surface.



TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
APP Torch G FR KoolCap	32' 10" x 3' 3-3/8"	ASTM D 6222	Torch applied, fire-rated, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a granule top surface and fire retardant chemistry.
APP Torch Base Premier	65' 8" x 3' 3-3/8"	ASTM D 6509	APP modified bitumen, fiberglass reinforced, base/ply sheet.

APPROVED INSULATIONS:

TABLE 2

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
Poly ISO 2	Polyisocyanurate foam insulation	Mule-Hide Products Co, Inc.
ACFoam-II	Polyisocyanurate foam insulation	Atlas Roofing Corporation
ACFoam-III	Polyisocyanurate foam insulation	Atlas Roofing Corporation
ACFoam Composite	Polyisocyanurate foam insulation	Atlas Roofing Corporation
Poly ISO 2 Composite	Polyisocyanurate foam insulation	Mule-Hide Products Co, Inc.
DensDeck	Gypsum insulation board	Georgia-Pacific Gypsum LLC
DensDeck Prime	Gypsum insulation board	Georgia-Pacific Gypsum LLC
ENRGY 3	Polyisocyanurate foam insulation	Johns Manville Corp.
FescoBoard	Expanded mineral fiber	Johns Manville Corp.
Structodek High Density Fiberboard Roof Insulation	Wood fiber board	Blue Ridge Fiberboard, Inc.
SECUROCK Gypsum-Fiber Roof Board	Fiber reinforced Coverboard	USG Corporation
Mule-Hide Poly ISO 1	Polyisocyanurate foam insulation	Mule-Hide Products Co, Inc.
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
Multi-Max FA-3	Polyisocyanurate foam insulation	Rmax Operating, LLC
Ultra-Max	Polyisocyanurate foam insulation	Rmax Operating, LLC
ISO 95+ GL	Polyisocyanurate foam insulation	Firestone Building Products Company, LLC



APPROVED INSULATIONS:

TABLE 2

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
EnergyGuard Polyiso Insulation	Polyisocyanurate foam insulation	GAF
Insulfoam EPS	Expanded polystyrene insulation board	Insulfoam, a Div. of Carlisle Const. Materials
DEXcell FA Glass Mat Roof Board	Gypsum board	National Gypsum Company

APPROVED FASTENERS/ADHESIVES:

TABLE 3

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
1.	Dekfast DF-#14-PH3	Insulation fastener for wood, steel and concrete decks	various	SFS Group USA, Inc.
2.	Dekfast DF-#15-PH3	Insulation fastener for wood, steel and concrete decks	various	SFS Group USA, Inc.
3.	Dekfast PLT-H-2-7/8	Galvalume hex stress plate.	2 7/8" x 3 1/4"	SFS Group USA, Inc.
4.	#14 Roofgrip	Insulation fastener for wood, steel and concrete decks.	various	OMG, Inc.
5.	#15 Roofgrip	Insulation fastener for wood, steel and concrete decks.	various	OMG, Inc.
6.	Flat Bottom Metal Plate	Galvalume stress plate.	3" square	OMG, Inc.
7.	<i>isofast</i> PLT-R-2-3/8-BL	Galvalume AZ55 steel plate	2.37" round	SFS Group USA, Inc.
8.	Mule-Hide HDP Fastener	Insulation fastener for wood, steel and concrete decks	various	Mule-Hide Products Co, Inc.
9.	Mule-Hide 3" Insulation Plates	Round Galvalume steel plate	3" round	Mule-Hide Products Co, Inc.
10.	Mule-Hide EHD Fastener	Insulation fastener for wood, steel and concrete decks	various	Mule-Hide Products Co, Inc.
11.	Trufast 2.4" Scoop Seam Plate	Galvalume steel stress plate.	2.4" round	Altenloh, Brinck & Co. U.S. Inc.
12.	Trufast 2.4 Barbed Metal Seam Plate	Galvalume steel stress plate.	2.4" round	Altenloh, Brinck & Co. U.S. Inc.
13.	Trufast 2-3/4" Barbed Metal Seam Plate	Galvalume steel stress plate.	2.75" round	Altenloh, Brinck & Co. U.S. Inc.
14.	Dekfast PLT-R-2-3/8-6B	Galvalume steel stress plate.	2.37" round	SFS Group USA, Inc.
15.	Insta Stik Quik Set Insulation Adhesive	A single component urethane foam adhesive		The Dow Chemical Co.



APPROVED FASTENERS/ADHESIVES:

TABLE 3

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
16.	Millennium One Step Foamable Insulation Adhesive	A two component, low rise, polyurethane foam adhesive		H.B. Fuller Company
17.	Millennium One Step Green Foamable Insulation Adhesive	A two component, low rise, polyurethane foam adhesive		H.B. Fuller Company
18.	Millennium PG-1 Pump Grade Adhesive	A two component, low rise, polyurethane foam adhesive		H.B. Fuller Company
19.	OMG OlyBond Adhesive	A two component polyurethane foam adhesive		OMG, Inc.
20.	OMG OlyBond 500	A two component polyurethane foam adhesive		OMG, Inc.
21.	OMG OlyBond 500 Gree	A two component, low rise, polyurethane foam adhesive		OMG, Inc.
22.	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.
23.	PG 350	A fibered rubberized adhesive designed for use with modified bitumen membranes.	1, 3, 5, 50, 55 gal. or tube	Polyglass USA, Inc.
24.	POLYPLUS 35	A fibered rubberized adhesive designed for use with modified bitumen membranes.	1, 3, 5, 50, 55 gal. or tube	Polyglass USA, Inc.
25.	PG 450	A thick, fibered, rubberized flashing cement.	1, 3, 5, 50, 55 gal. or tube	Polyglass USA, Inc.
26.	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.
27.	POLYPLUS 45	A thick, fibered, rubberized flashing cement.	1, 3, 5, 50, 55 gal. or tube	Polyglass USA, Inc.
28.	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.



APPROVED FASTENERS/ADHESIVES:

TABLE 3

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
29.	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.
30.	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.
31.	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.

<u>Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Application Rate</u>	<u>Specification</u>	<u>Manufacturer</u>
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.

<u>Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Application Rate</u>	<u>Specification</u>	<u>Manufacturer</u>
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, white or tinted, solvent, moisture cure 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.



APPROVED SURFACING:

TABLE 4

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

<u>Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Application Rate</u>	<u>Specification</u>	<u>Manufacturer</u>
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.
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:

<u>Test Agency</u>	<u>Test Name/Report</u>	<u>Report No.</u>	<u>Date</u>
Factory Mutual Research Corporation	4470	2W7A7.AM	08/04/94
	4450	2D5A9.AM	06/22/99
	4470	3004091	01/12/00
	4470	3001334	02/15/00
	4470	3012321	07/29/02
	4470	3014692	08/05/03
	4450	3014751	08/27/03
	4470	3023458	07/18/06
	4470	3024311	11/01/06
	4470	3031350	09/27/07
	4470	3032172	06/12/09
	4470	3036182	07/31/09
	4470	RR202591	10/22/15
	4470	3055491	12/05/16
	4470	3057029	02/02/17
Underwriters Laboratory	TAS 114	00NK20869	06/08/00
	UL 790	R14571	06/30/15
Trinity ERD	TAS 114	11772.08.00-1	08/14/00
	TAS 114	11776.06.02	06/13/02
	FM 4470	117777.06.03	06/30/03
	TAS 117(B)-ASTM D6862	C8500SC.11.07	11/30/07
	ASTM D 6164 / D 6222	P10490.10.08-R1	10/03/08
	TAS 114(D) – ASTM D1876	P10070.10.08	10/09/08
	TAS 114 Appendix D	P13770.09.09	09/10/09
	TAS 114	P13760.09.09	09/10/09
	FM 4470 & TAS 114	P30550.12.09-1	12/02/09
	FM 4470 & TAS 114	P30550.12.09-2	12/02/09
	FM 4470 & TAS 114	02762.03.05-R2	04/01/10
	ASTM D6163 / ASTM D 4601	P33960.03.11	03/15/11
	FM 4470 & TAS 114	P33970.03.11	03/15/11
	ASTM D6164	P37590.03.13-3A	03/06/13
	FM 4470 & TAS 114	P1738.02.07-R2	04/29/13
	TAS 114	11757.04.01-1-R1	04/30/13
	ASTM D6509	P37590.03.13-1-R1	06/26/13
	ASTM D6222	P37590.07.13-2	07/01/13
	ASTM D6222	P37590.03.13-5-R1	07/01/13
	ASTM D6163	P37590.03.13-2-R1	07/01/13
	ASTM D6164	P37590.07.13-1	07/02/13
	ASTM D4601 / TAS 117	P45940.09.13	09/04/13
	ASTM D4601	P44370.10.13	10/04/13
	FM 4474 & TAS 114	SC6160.11.14	11/10/14
	ASTM D6162	SC5170.05.15	05/08/15
	ASTM D6162	SC5170.12.15-1	12/29/15
	ASTM D6163	PLYG-P45440SC.03.15-2-R1	12/29/15



EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Test Name/Report</u>	<u>Report No.</u>	<u>Date</u>
	ASTM D6163	PLYG-P45440SC.03.15-1-R1	02/19/16
	FM 4474, UL1897, TAS 114	PLYG-SC8905.05.16-1	05/17/16
	FM 4474, UL1897, TAS 114	PLYG-SC8905.05.16-2	05/17/16
	TAS 114 & FM 4474	PLYG-SC10815.07.16	07/18/16
	TAS 114	P1734.07.06-R2	08/24/16
	FM 4470 & ASTM D1876	PLYG-SC9455.03.17	03/08/17
	TAS 114	11757.12.00-1-R2	04/05/17
PRI Asphalt Technologies	ASTM D6222	PUSA-062-02-01	12/04/07
	ASTM D6163	PUSA-064-02-02	02/27/08
	ASTM D6694	PUSA-134-02-01	05/16/14
	ASTM D6694	PUSA-135-02-01	05/16/14
	FM 4474, TAS 114(D)	PUSA-188-02-01	02/08/17
	FM 4474, TAS 114(D)	PUSA-188-02-02	02/08/17
	FM 4474, TAS 114(D)	PUSA-188-02-03	02/08/17
	Physical Properties	PUSA-213-02-01	05/02/17



APPROVED ASSEMBLIES:

- Membrane Type:** SBS/APP
- Deck Type 3I:** Concrete Decks, Insulated
- Deck Description:** 2500 psi structural concrete or concrete plank
- System Type A(1):** All layers of insulation adhered with approved adhesive. Membranes subsequently adhered to insulation.

All General and System limitations apply.

- Primer:** Primed with PG 100 and allowed to dry prior to application of vapor barrier.
(Optional)
- Vapor Barrier:** One ply of SA-SBS Cap Sheet.
(Optional)

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Insulfoam EPS, min 1.5 pcf Minimum 1.5” thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ¼” thick	N/A	N/A

Note: All insulation shall be applied with Insta Stik Quik Set Insulation Adhesive in continuous ¾ to 1” beads/ribbons in continuous 1.5” beads/ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

- Primer:** Top insulation is primed with PG 100.
- Base Sheet:** One ply of SA Base Sheet or SA Base Sheet FR self-adhered.
- Membrane:** One ply of APP Torch Base/Cap, APP Torch G Premier or APP Torch G KoolCap torch-applied.
- 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 #9)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(2): All layers of insulation adhered with approved adhesive. Membranes subsequently adhered to insulation.

All General and System limitations apply.

Primer: Concrete deck shall be primed with PG 100.
(Optional)

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II, ENRGY 3, ISO+95 GL, Ultra-Max, Multi-Max FA-3, H-Shield, Mule-Hide Poly ISO 1, Poly ISO 2 Minimum 1.5” thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ¼” thick	N/A	N/A

Note: Apply insulations in Insta Stik Quik Set Insulation Adhesive in continuous ¾ to 1” beads/ribbons spaced 12” o.c. Additional layers of insulation to be adhered with Insta Stik Quik Set Insulation Adhesive in continuous ¾ to 1” beads/ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Primer: Primed with PG 100 or WB-3000.
(Optional)

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

Membrane: One ply of APP Torch Base/Cap, APP Torch G Premier or APP Torch G KoolCap torch-applied.

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

Maximum Design Pressure: -67.5 psf (See General Limitation #9)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(3): All layers of insulation adhered with approved adhesive. Membranes subsequently adhered to insulation.

All General and System limitations apply.

Primer: Primed with PG 100 and allowed to dry prior to application of vapor barrier.
(Optional)
Vapor Barrier: One ply of SA-SBS Cap Sheet self-adhered or one ply of APP Torch Base Premier torch-applied.
(Optional)

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Insulfoam EPS, min 1.5 pcf Minimum 1.5" thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	N/A	N/A

Note: All insulation shall be applied with Insta Stik Quik Set Insulation Adhesive in continuous ¾ to 1" beads/ribbons in continuous 1.5" beads/ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Primer: Top insulation is primed with PG 100.
Base Sheet: One ply of SA Base Sheet or SA Base Sheet FR self-adhered.
Membrane: One ply of APP Torch Base/Cap, APP Torch G Premier or APP Torch G KoolCap torch-applied.
Surfacing: Install one of the approved surfacing products listed in Table 4 to obtain desired coating or
(Optional) required fire classification.
Maximum Design Pressure: -75.0 psf (See General Limitation #9)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(4): All layers of insulation adhered with approved adhesive. Membranes subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Insulfoam EPS, min 2.0 pcf Minimum 1.5” thick	N/A	N/A
<u>Top Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck, DensDeck Prime Minimum ¼” thick	N/A	N/A

Note: Apply insulation in OMG OlyBond 500 or OMG OlyBond 500 Green Adhesive in continuous ¾” to 1” beads/ribbons spaced 12” o.c. Additional layers of insulation to be adhered with OMG OlyBond 500 or OMG OlyBond 500 Green Adhesive in continuous ¾” to 1” beads/ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Primer: Top insulation is primed with PG 100 or WB-3000.
(Optional)

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

Membrane: One ply of APP Torch Base/Cap, APP Torch G Premier or APP Torch G KoolCap torch-applied.

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

Maximum Design Pressure: -75.0 psf: Base sheet adhered to DensDeck or DensDeck Prime (See General Limitation #9)
-120.0 psf: All other applications (See General Limitation #9)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(5): All layers of insulation adhered with approved adhesive. Membranes subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ENRGY 3 Minimum 1.5” thick	N/A	N/A
<u>Top Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck, DensDeck Prime Minimum ¼” thick	N/A	N/A

Note: Apply insulation in OMG OlyBond 500 or OMG OlyBond 500 Green Adhesive in continuous ¾” to 1” beads/ribbons spaced 12” o.c. Additional layers of insulation to be adhered with OMG OlyBond 500 or OMG OlyBond 500 Green Adhesive in continuous ¾” to 1” beads/ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Primer: Top insulation is primed with PG 100 or WB-3000.
(Optional)
Base Sheet: One ply of SA Base Sheet or SA Base Sheet FR self-adhered.
Membrane: One ply of APP Torch Base/Cap, APP Torch G Premier or APP Torch G KoolCap torch-applied.
Surfacing: Install one of the approved surfacing products listed in Table 4 to obtain desired coating or
(Optional) required fire classification.
Maximum Design Pressure: -75.0 psf: Base sheet adhered to DensDeck or DensDeck Prime (See General Limitation #9)
-127.5 psf: All other applications (See General Limitation #9)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(6): All layers of insulation adhered with approved adhesive. Membranes subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II, Poly ISO 2, ACFoam-III, ENRGY 3, H-Shield, Mule-Hide Poly ISO 1, H-Shield CG, Multi-Max FA-3 Minimum 1.5” thick	N/A	N/A
<u>Top Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck, DensDeck Prime Minimum ¼” thick	N/A	N/A

Note: Apply insulation in OMG OlyBond 500 or OMG OlyBond 500 Green Adhesive in continuous ¾” to 1” beads/ribbons spaced 12” o.c. Additional layers of insulation to be adhered with OMG OlyBond 500 or OMG OlyBond 500 Green Adhesive in continuous ¾” to 1” beads/ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Primer: Top insulation is primed with PG 100 or WB-3000.
(Optional)
Base Sheet: One ply of SA Base Sheet or SA Base Sheet FR self-adhered.
Membrane: One ply of APP Torch Base/Cap, APP Torch G Premier or APP Torch G KoolCap torch-applied.
Surfacing: Install one of the approved surfacing products listed in Table 4 to obtain desired coating or
(Optional) required fire classification.
Maximum Design Pressure: -75.0 psf: Base sheet adhered to DensDeck or DensDeck Prime (See General Limitation #9)
-150.0 psf: All other applications (See General Limitation #9)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(7): All layers of insulation adhered with approved adhesive. Membranes subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Poly ISO 2, ACFoam-II, ACFoam-III, ENRGY 3, Multi-Max FA-3, H-Shield, Mule-Hide Poly ISO 1 Minimum 1.5” thick	N/A	N/A

Note: All insulation shall be adhered with ICP Adhesives CR-20 in 2.5-inch wide ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

Primer: Insulation is primed with WB-3000.
(Optional)
Base Sheet: One ply of SA Base Sheet or SA Base Sheet FR self-adhered.
Membrane: One ply of APP Torch Base/Cap, APP Torch G, APP Torch S Premier, APP Torch G Premier, APP Torch G FR Premier, APP Torch G KoolCap or APP Torch G FR KoolCap torch applied.
Surfacing: Install one of the approved surfacing products listed in Table 4 to obtain desired coating or
(Optional) required fire classification.
Maximum Design Pressure: -90.0 psf; (See General Limitation #9.)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(8): All layers of insulation adhered with approved adhesive. Membranes subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Poly ISO 2, AC Foam-II, AC Foam-III, H-Shield, Mule-Hide Poly ISO 1 Minimum 1.0" thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board, DensDeck Prime, DEXcell FA Glass Mat Roof Board Minimum 1/4" thick	N/A	N/A

Note: All insulation shall be adhered with Insta Stik Quik Set Insulation Adhesive, OMG OlyBond 500, OMG OlyBond 500 Green Adhesive, Millennium One Step Foamable Insulation Adhesive, Millennium One Step Green Foamable Insulation Adhesive or Millennium PG-1 Pump Grade Adhesive in beads/ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

Base Sheet: One ply of Nail Base or Nail Base P adhered to deck with PG 350 adhesive at a rate of 2.0 gal/sq.

**Ply Sheet:
(Optional)** One or more plies of Nail Base or Nail Base P adhered to deck with PG 350 adhesive at a rate of 2.0 gal/sq.
 Or
 One or more plies of Nail Base, Nail Base P, APP Torch Base/Cap, APP Torch S Premier or APP Torch Base Premier* torch applied.
 *Requires torch-applied cap sheet.

Membrane: One ply of APP Torch Base/Cap, APP Torch G, APP Torch S Premier, APP Torch G Premier, APP Torch G FR Premier, APP Torch G KoolCap or APP Torch G FR KoolCap torch applied.

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

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



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(9): All layers of insulation adhered with approved adhesives. Membranes subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Base Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II, Poly ISO 2, H-Shield, Mule-Hide Poly ISO 1 Minimum 2” thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum ¼” thick	N/A	N/A

Note: All insulation shall be adhered with Insta Stik Quik Set Insulation Adhesive, OMG OlyBond 500, OMG OlyBond 500 Green Adhesive, Millennium One Step Foamable Insulation Adhesive, Millennium One Step Green Foamable Insulation Adhesive or Millennium PG-1 Pump Grade Adhesive in beads/ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

Primer: (For self-adhering base sheets only) Top insulation is primed with WB-3000.
(Optional)

Base Sheet: (Optional if using ply sheet in hot asphalt) One ply of Nail Base, Nail Base P or APP Torch Base/Cap adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Or

One or more plies of Nail Base, Nail Base P, APP Torch Base/Cap, APP Torch S Premier or APP Torch Base Premier torch applied.

Or

One or more plies of SA Base Sheet* or SA Base Sheet FR* self-adhered.
 *Requires torch-applied cap sheet.

Ply Sheet: (Optional if using base sheet in hot asphalt) One or more plies of Nail Base, Nail Base P or APP Torch Base/Cap adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Or

One or more plies of Nail Base, Nail Base P, APP Torch Base/Cap, APP Torch S Premier or APP Torch Base Premier torch applied.



Membrane: One ply of APP Torch G, APP Torch G Premier, APP Torch G FR Premier, APP Torch G KoolCap or APP Torch G FR KoolCap or hot asphalt applied.

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

**Maximum Design
Pressure:** -225.0 psf (See General Limitation #9)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(10): All layers of insulation adhered with approved asphalt. Membranes subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Base Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II, Poly ISO 2, H-Shield, Mule-Hide Poly ISO 1 Minimum 2” thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum ¼” thick	N/A	N/A

Note: 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 ft² or OMG OlyBond Adhesive at a rate of 1 gal/100ft². 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: One ply of APP Torch Base/Cap or APP Torch S Premier torch applied.

**Ply Sheet:
(Optional)** One or more plies of APP Torch Base/Cap or APP Torch S Premier torch applied.

Membrane: One ply of APP Torch G, APP Torch G Premier, APP Torch G FR Premier, APP Torch G KoolCap or APP Torch G FR KoolCap torch applied.

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

**Maximum Design
Pressure:** -232.5 psf (See General Limitation #9)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(11): All layers of insulation adhered with approved adhesives. Membranes subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II, Poly ISO 2, H-Shield, Mule-Hide Poly ISO 1 Minimum 2” thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum ¼” thick	N/A	N/A

Note: All insulation shall be adhered with Insta Stik Quik Set Insulation Adhesive, OMG OlyBond 500, OMG OlyBond 500 Green Adhesive, Millennium One Step Foamable Insulation Adhesive, Millennium One Step Green Foamable Insulation Adhesive or Millennium PG-1 Pump Grade Adhesive in 3/4” to 1” beads/ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

Primer: Top insulation is primed with WB-3000.
(Optional)

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

Membrane: One ply of APP Torch Base/Cap, APP Torch G Premier or APP Torch G KoolCap torch-applied.

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

Maximum Design Pressure: -232.5 psf (See General Limitation #9)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(12): All layers of insulation adhered with approved adhesive. Membranes subsequently adhered to insulation.

All General and System limitations apply.

Primer: Primed with PG 100.
(Optional)

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
Poly ISO 2, ACFoam-II, ACFoam-III, ENRGY 3, H-Shield, Mule-Hide Poly ISO 1, H-Shield CG, Multi-Max FA-3 Minimum 1.5” thick	N/A	N/A

<u>Top Insulation Layer (Optional)</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
Poly ISO 2, ACFoam-II, ACFoam-III, ENRGY 3, H-Shield, Mule-Hide Poly ISO 1, H-Shield CG, Multi-Max FA-3 Minimum 1.5” thick	N/A	N/A

Note: Apply insulation in Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Insulation Adhesive or Millennium PG-1 Pump Grade Adhesive in continuous ½” to ¾” beads/ribbons spaced 12” o.c. Additional layers of insulation to be adhered with Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Insulation Adhesive or Millennium PG-1 Pump Grade Adhesive in continuous ½” to ¾” beads/ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Primer: Top insulation is primed with WB-3000.
(Optional)

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

Membrane: One ply of APP Torch Base/Cap, APP Torch G Premier or APP Torch G KoolCap torch-applied.

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

Maximum Design Pressure: -232.5 psf (See General Limitation #9)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(13): All layers of insulation adhered with approved adhesive. Membranes subsequently adhered to insulation.

All General and System limitations apply.

Primer: Primed with PG 100 and allowed to dry prior to application of vapor barrier.
(Optional)
Vapor Barrier: One ply of SA-SBS Cap Sheet self-adhered.
(Optional)

One or more layers of any of the following insulations:

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Multi-Max FA-3 Minimum 1.5” thick	N/A	N/A
ACFoam-III Minimum 1.3” thick	N/A	N/A
ISO 95+ GL, H-Shield, Mule-Hide Poly ISO 1, H-Shield CG, ENRGY 3 Minimum 1.0” thick	N/A	N/A
<u>Top Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/4” thick	N/A	N/A

Note: All insulation shall be applied with ICP Adhesives CR-20 in continuous 1.5” beads/ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Primer: Insulation is primed with WB-3000.
(Optional)
Base Sheet: One ply of SA Base Sheet or SA Base Sheet FR self-adhered.
Membrane: One ply of APP Torch Base/Cap, APP Torch G Premier or APP Torch G KoolCap torch applied.
Surfacing: Install one of the approved surfacing products listed in Table 4 to obtain desired coating or
(Optional) required fire classification.
Maximum Design Pressure: -240.0 psf; (See General Limitation #9.)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(14): All layers of insulation adhered with approved adhesive. Membranes subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Insulfoam EPS, min 2.0 pcf Minimum 1.5” thick	N/A	N/A
<u>Top Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/4” thick	N/A	N/A

Note: All insulation shall be applied with ICP Adhesives CR-20 in continuous 3” to 3-1/2” beads/ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Primer: Insulation is primed with WB-3000.
(Optional)
Base Sheet: One ply of SA Base Sheet or SA Base Sheet FR self-adhered.
Membrane: One ply of APP Torch Base/Cap, APP Torch G Premier or APP Torch G KoolCap torch applied.
Surfacing: Install one of the approved surfacing products listed in Table 4 to obtain desired coating or
(Optional) required fire classification.
Maximum Design Pressure: -240.0 psf; (See General Limitation #9.)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(15): All layers of insulation adhered with approved adhesive. Membranes subsequently adhered to insulation.

All General and System limitations apply.

Primer: Primed with PG 100 and allowed to dry prior to application of vapor barrier.

Vapor Barrier: One ply of SA-SBS Cap Sheet self-adhered.

One or more layers of any of the following insulations:

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II, Poly ISO 2, ACFoam-III, ENRGY 3, H-Shield, Mule-Hide Poly ISO 1, H-Shield CG, Multi-Max FA-3 Minimum 1.5” thick	N/A	N/A

Note: All insulation shall be applied with ICP Adhesives CR-20 in continuous 3” to 3-1/2” beads/ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Primer: Insulation is primed with WB-3000.

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

Membrane: One ply of APP Torch Base/Cap, APP Torch G Premier or APP Torch G KoolCap torch applied.

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

**Maximum Design
Pressure:** -250.0 psf; (See General Limitation #9.)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(16): All layers of insulation adhered with approved adhesive. Membranes subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II, Poly ISO 2, ACFoam-III, ENRGY 3, H-Shield, Mule-Hide Poly ISO 1, H-Shield CG, Multi-Max FA-3 Minimum 1.5” thick	N/A	N/A

Note: All insulation shall be applied with ICP Adhesives CR-20 in continuous 3” to 3-1/2” beads/ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Primer:
(Optional)** Insulation is primed with WB-3000.

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

Membrane: One ply of APP Torch Base/Cap, APP Torch G Premier or APP Torch G KoolCap torch applied.

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

**Maximum Design
Pressure:** -262.5 psf; (See General Limitation #9.)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(17): All layers of insulation adhered with approved adhesive. Membranes subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Insulfoam EPS, min. 1.5 pcf Minimum 1.5” thick	N/A	N/A
<u>Top Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/4” thick	N/A	N/A

Note: All insulation shall be applied with ICP Adhesives CR-20 in continuous 1.5” beads/ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Primer:
(Optional)** Insulation is primed with WB-3000.

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

Membrane: One ply of APP Torch Base/Cap, APP Torch G Premier or APP Torch G KoolCap torch applied.

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

Maximum Design Pressure: -255.0 psf; (See General Limitation #9.)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(18): All layers of insulation adhered with approved asphalt. Membranes subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Base Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ENRGY 3, ACFoam-II, Poly ISO 2, H-Shield, Mule-Hide Poly ISO 1 Minimum 1.5” thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck Minimum ¼” thick	N/A	N/A
Structodek High Density Fiberboard Roof Insulation Minimum ½” thick	N/A	N/A
FescoBoard Minimum ¾” thick	N/A	N/A

Note: Concrete deck shall be primed with PG 100 and allowed to dry. 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 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 used as a top layer shall be placed with the polyisocyanurate side facing down.

Base Sheet: *(Optional if using ply sheet in hot asphalt)* One ply of Nail Base 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 if using base sheet in hot asphalt)* One or more plies of APP Torch Base/Cap or APP Torch S Premier torch applied.

Or

One or more plies of Nail Base, Nail Base P or one or more plies of Type IV or VI ply sheet adhered to the insulation in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of APP Torch Base/Cap, APP Torch G, APP Torch S Premier, APP Torch G Premier, APP Torch G FR Premier, APP Torch G KoolCap or APP Torch G FR KoolCap torch applied.



**Surfacing:
(Optional)**

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

**Maximum Design
Pressure:**

-277.5 psf (for FescoBoard) (See General Limitation #9)

-285.0 psf (for Structodek High Density Wood Fiberboard) (See General Limitation #9)

-510.0 psf (for DensDeck) (See General Limitation #9)



Membrane Type: SBS/APP

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(19): All layers of insulation adhered with approved asphalt to adhered anchor sheet. Membranes subsequently adhered to insulation.

All General and System limitations apply.

Anchor Sheet: One ply of SA Base Sheet or SA Base Sheet FR self-adhered on primed concrete deck followed by one ply of APP Torch Base/Cap or APP Torch S Premier torch applied.

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II, Poly ISO 2 Minimum 1.5” thick	N/A	N/A
<u>Top Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck, DensDeck Prime Minimum ¼” thick	N/A	N/A
Structodek High Density Fiberboard Minimum ½” thick	N/A	N/A
FescoBoard Minimum ¾” thick	N/A	N/A

Note: Concrete deck shall be primed with PG 100 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 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 used as a top layer shall be placed with the polyisocyanurate side facing down.

Base Sheet: *(Optional if using ply sheet in hot asphalt)* One ply of Nail Base 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 if using base sheet in hot asphalt)* One or more plies of APP Torch Base/Cap or APP Torch S Premier torch applied.

Or

One or more plies of Nail Base, Nail Base P or one or more plies of Type IV or VI ply sheet adhered to the insulation in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of APP Torch Base/Cap, APP Torch G, APP Torch S Premier, APP Torch G Premier, APP Torch G FR Premier, APP Torch G KoolCap or APP Torch G FR KoolCap torch applied.



**Surfacing:
(Optional)**

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

**Maximum Design
Pressure:**

-280.0 psf (See General Limitation #9)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(20): All layers of insulation adhered with approved adhesives. Membranes subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II, ACFoam-III, Poly ISO 2 Minimum 1.5” thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck Prime Minimum ¼” thick	N/A	N/A

Note: All insulation shall be adhered with Millennium One Step Foamable Insulation Adhesive, Millennium One Step Green Foamable Insulation Adhesive or Millennium PG-1 Pump Grade Adhesive in 3/4” to 1” beads/ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

Primer: (For self-adhering base sheets only) Top insulation is primed with WB-3000.
(Optional)

Base Sheet: One ply of Nail Base, Nail Base P, APP Torch Base/Cap, APP Torch S Premier or APP Torch Base Premier* torch applied.
 Or
 One ply of Nail Base or Nail Base P or G2 Base adhered to deck with Polyplus 35 or PG 350 adhesive at a rate of 2.0 gal/sq.
 Or
 One ply of Nail Base or Nail Base P adhered to deck in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
 Or
 One or more plies of SA Base Sheet* or SA Base Sheet FR* self-adhered.
 *Requires torch-applied ply or cap sheet.



- Ply Sheet:
(Optional)** One or more plies of Nail Base, Nail Base P, APP Torch Base/Cap, APP Torch S Premier or APP Torch Base Premier torch applied.
- Or
- One or more plies of Nail Base, Nail Base P or G2 Base Sheet adhered with Polyplus 35 or PG 350 adhesive at a rate of 2.0 gal/sq.
- Or
- One or more plies of Nail Base or Nail Base P adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Or
- One or more plies of SA Base Sheet or SA Base Sheet FR self-adhered.
- Membrane:** One ply of APP Torch Base/Cap, APP Torch G, APP Torch S Premier, APP Torch G Premier, APP Torch G FR Premier, APP Torch G KoolCap or APP Torch G FR KoolCap torch applied.
- Surfacing:
(Optional)** Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.
- Maximum Design
Pressure:** -282.5 psf (See General Limitation #9)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(21): All layers of insulation adhered with approved asphalt. Membranes subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ENRGY 3, ACFoam-II, Poly ISO 2, H-Shield, Mule-Hide Poly ISO 1 Minimum 1.5” thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck Minimum ¼” thick	N/A	N/A
Structodek High Density Fiberboard Roof Insulation Minimum ½” thick	N/A	N/A
FescoBoard Minimum ¾” thick	N/A	N/A

Note: Concrete deck shall be primed with PG 100 and allowed to dry. 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 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 used as a top layer shall be placed with the polyisocyanurate side facing down.

Base Sheet: *(Optional if using ply sheet in hot asphalt)* One ply of Nail Base 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 if using base sheet in hot asphalt)* One or more plies of APP Torch Base/Cap or APP Torch S Premier torch applied.

Or

One or more plies of Nail Base, Nail Base P or one or more plies of Type IV or VI ply sheet adhered to the insulation in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of APP Torch Base/Cap, APP Torch G, APP Torch S Premier, APP Torch G Premier, APP Torch G FR Premier, APP Torch G KoolCap or APP Torch G FR KoolCap torch applied.



**Surfacing:
(Optional)**

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

**Maximum Design
Pressure:**

-290.0 psf (for FescoBoard) (See General Limitation #9)
-557.5 psf (for Structodek High Density Wood Fiberboard) (See General Limitation #9)
-622.5 psf (for DensDeck) (See General Limitation #9)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(22): All layers of insulation adhered with approved adhesives. Membranes subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II, ACFoam-III, Poly ISO 2 Minimum 1.5” thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board, DensDeck Prime, DEXcell FA Glass Mat Roof Board Minimum ¼” thick	N/A	N/A

Note: All insulation shall be adhered with Insta Stik Quik Set Insulation Adhesive, OMG OlyBond 500, OMG OlyBond 500 Green Adhesive, Millennium One Step Foamable Insulation Adhesive, Millennium One Step Green Foamable Insulation Adhesive or Millennium PG-1 Pump Grade Adhesive in beads/ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

Primer: (For self-adhering base sheets only) Top insulation is primed with WB-3000.
(Optional)

Base Sheet: One ply of Nail Base, Nail Base P, APP Torch Base/Cap, APP Torch S Premier or APP Torch Base Premier* torch applied.
 Or
 One ply of Nail Base, Nail Base P or G2 Base Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or with Polyplus 35 or PG 350 adhesive at a rate of 2.0 gal/sq.
 Or
 One ply of SA Base Sheet* or SA Base Sheet FR* self-adhered.
 *Requires torch-applied ply or cap sheet.



- Ply Sheet:
(Optional)** One or more plies of Nail Base, Nail Base P, APP Torch Base/Cap, APP Torch S Premier or APP Torch Base Premier torch applied.
- Or
One or more plies of Nail Base, Nail Base P or G2 Base Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or with Polyplus 35 or PG 350 adhesive at a rate of 2.0 gal/sq.
- Or
One or more plies of SA Base Sheet or SA Base Sheet FR self-adhered.
- Membrane:** One ply of APP Torch Base/Cap, APP Torch G, APP Torch S Premier, APP Torch G Premier, APP Torch G FR Premier, APP Torch G KoolCap or APP Torch G FR KoolCap torch applied.
- Surfacing:
(Optional)** Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.
- Maximum Design
Pressure:** -322.5 psf (See General Limitation #9)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(23): All layers of insulation adhered with approved asphalt. Membranes subsequently adhered to insulation.

All General and System limitations apply.

Primer: Concrete deck shall be primed with PG100.

One or more layers of any of the following insulations:

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II, Poly ISO 2, ACFoam-III, ENRGY 3, H-Shield, Mule-Hide Poly ISO 1, H-Shield CG, Multi-Max FA-3 Minimum 1.5" thick	N/A	N/A

Note: Apply 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.

Primer: Insulation layer is primed with WB-3000.

(Optional)

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

Membrane: One ply of APP Torch Base/Cap, APP Torch G Premier or APP Torch G KoolCap torch applied.

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

Maximum Design Pressure: -480.0 psf (See General Limitation #9)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(24): All layers of insulation adhered with approved asphalt. Membranes subsequently adhered to insulation.

All General and System limitations apply.

Primer: Concrete deck shall be primed with PG 100.

One or more layers of any of the following insulations:

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II, Poly ISO 2, ACFoam-III Minimum 2” thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum ¼” thick	N/A	N/A

Note: Apply 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.

Primer: Top insulation is primed with WB-3000.

(Optional)

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

Membrane: One ply of APP Torch Base/Cap, APP Torch G Premier or APP Torch G KoolCap torch applied.

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

Maximum Design Pressure: -547.5 psf (See General Limitation #9)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type B: Base layer of insulation mechanically fastened, top layer adhered with approved asphalt. Membranes subsequently adhered to insulation.

All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ENRGY 3, H-Shield, Mule-Hide Poly ISO 1, AC Foam-II, Poly ISO 2 Minimum 1.5” thick	1 with 3; 8 with 9	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 RAS 117 for fastening details.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Structodek High Density Fiberboard Roof Insulation Minimum ½” thick	N/A	N/A
FescoBoard Minimum ¾” 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.

Base Sheet: *(Optional if using ply sheet in hot asphalt)* One ply of Nail Base 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 if using base sheet in hot asphalt)* One or more plies of APP Torch Base/Cap, APP Torch S Premier torch applied.
 Or
 One or more plies of Nail Base, Nail Base P or one or more plies of Type IV or VI ply sheet adhered to the insulation in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of APP Torch Base/Cap, APP Torch G, APP Torch S Premier, APP Torch G Premier, APP Torch G FR Premier, APP Torch G KoolCap or APP Torch KoolCap® G FR torch applied.



**Surfacing:
(Optional)**

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

**Maximum Design
Pressure:**

-90.0 psf; (See general limitation #7.)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
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 layers of any of the following insulations:

<u>Base Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
H-Shield, Mule-Hide Poly ISO 1, ACFoam-II, Poly ISO 2, ISO 95+GL, ENRGY 3 Minimum 2.0” thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum 1/2” thick	1 with 3	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.

Base Sheet: *(Optional if using ply sheet in hot asphalt)* One ply of Nail Base, Nail Base P or APP Torch Base/Cap 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 Nail Base, Nail Base P, APP Torch Base/Cap, APP Torch S Premier or APP Torch Base Premier torch applied.

Ply Sheet: *(Optional if using base sheet in hot asphalt)* One or more plies of Nail Base, Nail Base P or APP Torch Base/Cap adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
 Or
 One or more plies of Nail Base, Nail Base P, APP Torch Base/Cap, APP Torch S Premier or APP Torch Base Premier torch applied.

Membrane: One ply of APP Torch G, APP Torch G Premier, APP Torch FR, APP Torch G KoolCap or APP Torch G FR KoolCap or hot asphalt applied.

**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 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
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 layers of any of the following insulations:

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ENRGY 3, H-Shield, Mule-Hide Poly ISO 1, ACFoam-II, Poly ISO 2 Minimum 1.5" thick	1 with 3; 8 with 9	1:1.33 ft ²

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

Primer: Insulation is primed with WB-3000.
(Optional)
Base Sheet: One ply of SA Base Sheet or SA Base Sheet FR self-adhered.
Ply Sheet: One or more plies of APP Torch Base/Cap or APP Torch S Premier torch applied.
(Optional)
 Or
 One or more plies of Nail Base, Nail Base P or one or more plies of Type IV or VI ply sheet adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs.
Membrane: One ply of APP Torch Base/Cap, APP Torch G, APP Torch S Premier, APP Torch G Premier, APP Torch G FR Premier, APP Torch G KoolCap or APP Torch G FR KoolCap torch applied.
Surfacing: Install one of the approved surfacing products listed in Table 4 to obtain desired coating or required fire classification.
(Optional)
Maximum Design Pressure: -82.5 psf; (See General limitation #7.)



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
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 any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ENRGY 3, H-Shield, Mule-Hide Poly ISO 1, Multi-Max FA-3, EnergyGuard Polyiso Insulation		
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.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum ¼" thick	1 with 3; 8 with 9	1:1.33 ft ²
Structodek High Density Fiberboard Roof Insulation		
Minimum ½" thick	1 with 3; 8 with 9	1:1.33 ft ²

Base Sheet: *(Optional if using ply sheet in hot asphalt)* One or more plies of Nail Base 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 if using base sheet in hot asphalt)* One or more plies of APP Torch Base/Cap or APP Torch S Premier torch applied.

Or

One or more plies of Nail Base, Nail Base P or, one or more plies of Type IV or VI ply sheet adhered to the insulation in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of APP Torch Base/Cap, APP Torch G, APP Torch S Premier, APP Torch G Premier, APP Torch G FR Premier, APP Torch G KoolCap or APP Torch G FR KoolCap torch applied.

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

**Maximum Design
Pressure:** -82.5 psf; (See General limitation #7.)



Membrane Type: SBS/APP

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

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.

All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Any approved Polyisocyanurate listed in Table 2 Minimum 1” thick	N/A	N/A
<u>Top Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
FescoBoard Minimum 3/4” thick	N/A	N/A
Structodek High Density Fiberboard Minimum 1/2” thick	N/A	N/A
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/4” 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, Nail Base P, APP Torch Base Premier* or G2 Base Sheet fastened to the deck as described below:
*Requires torch-applied ply or cap sheet.

Fastening: Attach base sheet using OMG #14 Roofgrip or #15 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:
(Optional)** One or more plies of APP Torch Base/Cap or APP Torch S Premier torch applied.
Or
One or more plies of Nail Base, Nail Base P or one or more plies of Type IV or VI ply sheet adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.



Membrane: One ply of APP Torch Base/Cap, APP Torch G, APP Torch S Premier, APP Torch G Premier, APP Torch G FR Premier, APP Torch G KoolCap or APP Torch G FR KoolCap torch applied.

**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 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type D(2): All insulation is loosed laid with preliminary attachment to deck. Base sheet is subsequently mechanically fastened through insulation to the roof deck.

All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ENRGY 3, H-Shield, Mule-Hide Poly ISO 1, Multi-Max FA-3, EnergyGuard Polyiso Insulation Minimum 1” thick	N/A	N/A
<u>Top Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
FescoBoard 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 APP Torch Base Premier* or G2 Base Sheet fastened to the deck as described below:
 *Requires torch-applied ply or cap sheet.

Fastening: Attach base sheet using Dekfast DF-#14-PH3 or Dekfast DF-#15-PH3 fasteners with Dekfast PLT-H-2-7/8 plates, Mule-Hide HDP Fasteners or Mule-Hide EHD Fasteners with Mule-Hide 3” Insulation Plates or OMG #14 Roofgrip fasteners with 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:
(Optional)** One or more plies of APP Torch Base/Cap or APP Torch S Premier torch applied.
 Or
 One or more plies of Nail Base, Nail Base P or one or more plies of Type IV or VI ply sheet adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of APP Torch Base/Cap, APP Torch G, APP Torch S Premier, APP Torch G Premier, APP Torch G FR Premier, APP Torch G KoolCap or APP Torch G FR KoolCap torch applied.



**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 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type D(3): All insulation is loosed laid with preliminary attachment to deck. Base sheet is subsequently mechanically fastened through insulation to the roof deck.

All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
H-Shield, Mule-Hide Poly ISO 1, ACFoam Composite, Poly ISO 2 Composite, ACFoam-II, Poly ISO 2, ACFoam-III, ENRGY 3 Minimum 1.5” thick	N/A	N/A
FescoBoard Minimum ¾” thick	N/A	N/A
Structodek High Density Fiberboard Roof Insulation Minimum 1” thick	N/A	N/A

Note: Top layer shall have preliminary attachment, prior to installation of the base sheet, at an 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 sheet below for fasteners and density.

Base Sheet: One ply of APP Torch Base/Cap or APP Torch S Premier mechanically fastened to the deck as described below:

Fastening #1: Attach base sheet using Dekfast DF-#14-PH3 fasteners with approved plates spaced 12” o.c. in a minimum 6” wide side lap. The side lap is either torch or hot air welded closed.
(Maximum Design Pressure –82.5 psf – See General Limitation #7.)

Fastening #2: (APP Torch S Premier *only*) Attach base sheet using Dekfast DF-#15-PH3 fasteners with *isofast* PLT-R-2-3/8-BL plates spaced 12” o.c. in a 5” heat welded side lap.
(Maximum Design Pressure –82.5 psf – See General Limitation #9)

Membrane: One ply of APP Torch Base/Cap, APP Torch G, APP Torch S Premier, APP Torch G Premier, APP Torch G FR Premier, APP Torch G KoolCap or APP Torch G FR KoolCap torch applied.

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

**Maximum Design
Pressure:** See Fastening Options above



Membrane Type: SBS/APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type D(4): All insulation is loosed laid with preliminary attachment to deck. Base sheet is subsequently mechanically fastened through insulation to the roof deck.

All General and System limitations apply.

One or more layers of any of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ENRGY 3, H-Shield, Mule-Hide Poly ISO 1, Multi-Max FA-3, EnergyGuard Polyiso Insulation Minimum 1” thick	N/A	N/A
<u>Top Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
FescoBoard Minimum 3/4” thick	N/A	N/A
Structodek High Density Fiberboard Roof Insulation Minimum 1/2” thick	N/A	N/A
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/4” 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 APP Torch Base/Cap or APP Torch S Premier fastened to the deck as described below:

Fastening: Attach base sheet using Dekfast DF-#14-PH3 fasteners with Dekfast PLT-H-2-7/8 plates or OMG #14 Roofgrip fasteners with Flat Bottom Metal Plates spaced 12” o.c. in a 4” lap and 18” o.c. in two equally spaced staggered rows in the center of the sheet.

**Ply Sheet:
(Optional)** One or more plies of APP Torch Base/Cap or APP Torch S Premier torch applied.
 Or
 One or more plies of Nail Base, Nail Base P or, one or more plies of Type IV or VI ply sheet adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of APP Torch Base/Cap, APP Torch G, APP Torch S Premier, APP Torch G Premier, APP Torch G FR Premier, APP Torch G KoolCap or APP Torch G FR KoolCap torch applied.

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



Maximum Design

Pressure: -112.5 psf; (See General limitation #7.)



Membrane Type: APP
Deck Type 3: Concrete Decks, Non-Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type E: Base sheet is mechanically fastened to the roof deck. Membranes subsequently adhered

All General and System limitations apply.

Base Sheet: One ply of APP Torch Base/Cap or APP Torch S Premier mechanically fastened to the deck as described below:

Fastening: Attach base sheet using Dekfast DF-#15-PH3 with *isofast* PLT-R-2-3/8-BL plates spaced 12” o.c. in a 6” heat welded side lap.

Membrane: One ply of APP Torch G, APP Torch G Premier or APP Torch G KoolCap torch applied.

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

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



Membrane Type: SBS/APP
Deck Type 3: Concrete Decks, Non-Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type F(1): Membranes adhered to roof deck

All General and System limitations apply.

Base Sheet: One ply of Nail Base or Nail Base P adhered to deck with PG 350 adhesive at a rate of 2.0 gal/sq.

**Ply Sheet:
(Optional)** One or more plies of Nail Base or Nail Base P adhered to deck with PG 350 adhesive at a rate of 2.0 gal/sq.

Or

One or more plies of Nail Base, Nail Base P, APP Torch Base/Cap, APP Torch S Premier or APP Torch Base Premier* torch applied.

*Requires torch-applied cap sheet.

Membrane: One ply of APP Torch Base/Cap, APP Torch G, APP Torch S Premier, APP Torch G Premier, APP Torch G FR Premier, APP Torch G KoolCap or APP Torch G FR KoolCap torch applied.

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

**Maximum Design
Pressure:** -105.0 psf; (See General Limitation #9.)



Membrane Type: SBS/APP
Deck Type 3: Concrete Decks, Non-Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type F(2): Membranes adhered to roof deck

All General and System limitations apply.

Note: Concrete deck shall be primed with PG 100 and allowed to dry prior to application of base sheet.

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

Membrane: One ply of APP Torch Base/Cap, APP Torch G Premier, APP Torch S Premier, APP Torch G FR Premier, APP Torch G KoolCap or APP Torch G FR KoolCap torch-applied.

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

**Maximum Design
Pressure:** -315.0 psf; (See General Limitation #9.)



Membrane Type: SBS/APP
Deck Type 3: Concrete Decks, Non-Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type F(3): Membranes adhered to roof deck

All General and System limitations apply.

Note: Concrete deck shall be primed with PG 100 and allowed to dry prior to application of base sheet.

**Base Sheet:
(Optional)** One ply of Nail Base 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)** One or more plies of APP Torch Base/Cap or APP Torch S Premier torch applied.
Or
One or more plies of Nail Base, Nail Base P or one or more plies of ASTM D2178 Type IV or VI ply sheet adhered in hot asphalt.

Membrane: One ply of APP Torch Base/Cap, APP Torch G, APP Torch S Premier, APP Torch G Premier, APP Torch G FR Premier, APP Torch G KoolCap or APP Torch G FR KoolCap torch applied.

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

**Maximum Design
Pressure:** -622.5 psf; (See General Limitation #9.)



CONCRETE DECK SYSTEM LIMITATIONS:

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

GENERAL LIMITATIONS:

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

END OF THIS ACCEPTANCE

