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)

GAF
1 Campus Drive
Parsippany, NJ 07054

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: GAF Ruberoid® Modified Bitumen Roof System for 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 and revises NOA No. 23-1102.03 and consists of pages 1 through 67.
The submitted documentation was reviewed by Jorge L. Acebo.

09/26/24

MIAMI-DADE COUNTY APPROVED

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Modified Bitumen
Material: APP/SBS
Deck Type: Wood
Maximum Design Pressure: -105 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
GAFGLAS® Ply 4	39.37" (1 meter) Wide	ASTM D2178	Smooth surfaced asphaltic ply sheet reinforced with fiberglass mat.
Tri-Ply® Ply 4 Ply Sheet	39.37" (1 meter) Wide	ASTM D2178	Smooth surfaced asphaltic ply sheet reinforced with fiberglass mat.
GAFGLAS® FlexPly™ 6	39.37" (1 meter) Wide	ASTM D2178	Smooth surfaced asphaltic ply sheet reinforced with fiberglass mat.
GAFGLAS® #75 Base Sheet	39.37" (1 meter) Wide	ASTM D4601	Smooth asphaltic base or base/ply sheet reinforced with fiberglass mat.
Tri-Ply® #75 Base Sheet	39.37" (1 meter) Wide	ASTM D4601	Smooth asphaltic base or base/ply sheet reinforced with fiberglass mat.
GAFGLAS® #80 Ultima™ Base Sheet	39.37" (1 meter) Wide	ASTM D4601	Smooth asphaltic base or base/ply sheet reinforced with fiberglass mat.
GAFGLAS® Stratavent® Perforated Venting Base Sheet	39.37" (1 meter) Wide	ASTM D4897	Smooth surfaced asphaltic perforated venting base sheet reinforced with fiberglass mat.
GAFGLAS® Stratavent® Nailable Venting Base Sheet	39.37" (1 meter) Wide	ASTM D4897	Smooth surfaced asphaltic nailable venting base sheet reinforced with fiberglass mat. Bottom side surfaced with granules.
Ruberoid® HW 25 Smooth	39.37" (1 meter) Wide	ASTM D6163	Smooth surfaced torch applied SBS base or ply sheet reinforced with a fiberglass mat.
Ruberoid® HW Smooth	39.37" (1 meter) Wide	ASTM D6164	Smooth surfaced torch applied SBS base or ply sheet reinforced with a polyester mat.
Ruberoid® HW Granule	39.37" (1 meter) Wide	ASTM D6164	Granule surfaced torch applied SBS cap sheet reinforced with a polyester mat.
Ruberoid® HW Granule FR	39.37" (1 meter) Wide	ASTM D6164	Fire retardant granule surfaced heat-welded SBS cap sheet reinforced with a polyester mat.
Ruberoid® HW Plus Granule	39.37" (1 meter) Wide	ASTM D6164	Granule surfaced torch applied SBS cap sheet reinforced with a polyester mat.
Ruberoid® HW Plus Granule FR	39.37" (1 meter) Wide	ASTM D6164	Fire retardant granule surfaced torch applied SBS cap sheet reinforced with a polyester mat.

Product	Dimensions	Test Specification	Product Description
Ruberoid® EnergyCap™ HW Plus Granule FR	1 meter (39.37") Wide	ASTM D6164	Fire retardant granule surfaced heat-welded SBS cap sheet reinforced with a polyester mat. Cap sheet is factory coated with TOPCOAT® EnergyCote™ Elastomeric Coating.
Ruberoid® Torch Smooth	39.37" (1 meter) Wide	ASTM D6222	Smooth surfaced torch applied APP base or ply sheet reinforced with a polyester mat.
Tri-Ply® APP Smooth Membrane	39.37" (1 meter) Wide	ASTM D6222	Smooth surfaced torch applied APP cap, base or ply sheet reinforced with a polyester mat.
Ruberoid® Torch Granule	39.37" (1 meter) Wide	ASTM D6222	Granule surfaced torch applied APP cap sheet reinforced with a polyester mat.
Ruberoid® Torch Plus Granule FR	39.37" (1 meter) Wide	ASTM D6222	Fire retardant granule surfaced torch applied APP cap sheet reinforced with a polyester mat.
Ruberoid® EnergyCap™ Torch Granule FR	39.37" (1 meter) Wide	ASTM D6222	Fire retardant granule surfaced torch applied APP cap sheet reinforced with a polyester mat. Cap sheet is factory coated with TOPCOAT® EnergyCote™ Elastomeric Coating.
Ruberoid® 20 Smooth	39.37" (1 meter) Wide	ASTM D6163	SBS polymer-modified asphalt base or ply sheet reinforced with a fiberglass mat.
Ruberoid® 30 Granule	39.37" (1 meter) Wide	ASTM D6163	Granule surfaced mop applied SBS cap sheet reinforced with a fiberglass mat.
Ruberoid® 30 Granule FR	39.37" (1 meter) Wide	ASTM D6163	Fire retardant granule surfaced mop applied SBS cap sheet reinforced with fiberglass mat.
Ruberoid® 30 Plus Granule FR	39.37" (1 meter) Wide	ASTM D6163	Fire retardant granule surfaced mop applied SBS cap sheet reinforced with fiberglass mat.
Ruberoid® Mop Granule	39.37" (1 meter) Wide	ASTM D6164	Granule surfaced mop applied SBS cap sheet reinforced with a polyester mat.
Tri-Ply® SBS Granule Cap Sheet	39.37" (1 meter) Wide	ASTM D6164	Granule surfaced mop applied SBS cap sheet reinforced with a polyester mat.
Intec Flex PRF	39.37" (1 meter) Wide	ASTM D6164	Granule surfaced mop applied SBS cap sheet reinforced with a polyester mat.
Ruberoid® Mop Smooth 1.5	39.37" (1 meter) Wide	ASTM D6164	Smooth surfaced mop applied SBS base sheet reinforced with a polyester mat.
Ruberoid® Mop Plus Smooth	39.37" (1 meter) Wide	ASTM D6164	Smooth surfaced mop applied SBS base or ply sheet reinforced with a polyester mat.
Ruberoid® Mop Plus Granule FR	39.37" (1 meter) Wide	ASTM D6164	Fire retardant granule surfaced mop applied SBS cap sheet reinforced with a polyester mat.

Product	Dimensions	Test Specification	Product Description
Ruberoid® EnergyCap™ Mop Plus Granule FR	39.37" (1 meter) Wide	ASTM D6164	Fire retardant granule surfaced mop applied SBS cap sheet reinforced with a polyester mat. Cap sheet is factory coated with TOPCOAT® EnergyCote™ Elastomeric Coating.
Ruberoid® Mop Granule FR	39.37" (1 meter) Wide	ASTM D6164	Fire retardant granule surfaced mop applied SBS cap sheet reinforced with a polyester mat.
Ruberoid® EnergyCap™ 30 Granule FR	39.37" (1 meter) Wide	ASTM D6163	Fire retardant granule surfaced mop applied SBS cap sheet reinforced with a fiberglass mat. Cap sheet is factory coated with TOPCOAT® EnergyCote™ Elastomeric Coating.
GAFGLAS® Mineral-Surfaced Cap Sheet	39.37" (1 meter) Wide	ASTM D3909	Granule surfaced asphaltic cap sheet reinforced with fiberglass mat.
Tri-Ply® BUR Granule Cap Sheet	39.37" (1 meter) wide	ASTM D3909	Granule surfaced asphaltic cap sheet reinforced with a fiberglass mat.
GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet	39.37" (1 meter) Wide	ASTM D3909	Granule surfaced asphaltic cap sheet reinforced with fiberglass mat. Cap sheet is factory coated with TOPCOAT® EnergyCote™ Elastomeric Coating.
United Coatings™ Roof Mate TCM Coating	1, 5 or 55 Gallons	ASTM D6083	Water-based elastomeric coating
TOPCOAT® Surface Seal SB	5 or 55 gallons	ASTM D6083	Solvent based thermoplastic rubber sealant designed to protect and restore aged roof surfaces and to increase roof reflectivity.
United Coatings™ Surface Seal SB Roof Coating	5 or 55 Gallons	ASTM D6083	Solvent-based thermoplastic rubber sealant designed to protect and restore aged roof surfaces and to increase roof reflectivity.
TOPCOAT® MB Plus	5 or 55 gallons	Proprietary	Water based, low VOC primer used to block asphalt bleed-through.
United Coatings™ Roof Mate MB Plus Coating	5 or 55 Gallons	Proprietary	Water based, low VOC primer designed to block asphalt bleed-through.
FireOut™ Fire Barrier Coating	5 or 55 gallons	Proprietary	Low VOC, water-based fire barrier coating.
Flex Seal™	1, 5 gallons or 1 qt. tube	TAS 139	Solvent-based elastomeric sealant.
VersaShield® Fire-Resistant Roof Deck Protection	12" x 100' rolls	ASTM D226	Non-asphaltic fiberglass-based underlayment and /or fire barrier.
VersaShield® Solo™ Fire-Resistant Slip Sheet	42" roll wide, 100 ft.	ASTM D146, D828, D4869, D6757	Non-asphaltic, fire resistant fiberglass underlayment
Matrix™ 102 SBS Membrane Adhesive	3, 5 or 55 gallons	ASTM D3019	Fiber reinforced rubberized cold-applied adhesive for modified bitumen roof systems.

APPROVED INSULATIONS:

Table 2

Product Name	Product Description	Manufacturer (With Current NOA)
EnergyGuard™ Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard™ Tapered Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard™ Ultra Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard™ Ultra Tapered Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard™ RA Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard™ RH Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard™ RH Tapered Polyiso Insulation	Polyisocyanurate foam insulation	GAF
Structodek® High Density Fiberboard Roof Insulation	High density fiberboard	Blue Ridge Fiberboard, Inc.
SECUROCK® Gypsum-Fiber Roof Board	Gypsum board	United States Gypsum Corp.
DensDeck® Roof Board	Gypsum board	Georgia-Pacific
DensDeck® Prime Roof Board	Gypsum board	Georgia-Pacific

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Drill-Tec™ #12 Fastener	Phillips head, modified buttress thread, pinch point, carbon steel fastener for use in steel or wood decks. With CR-10 coating. Available with a pinch point or drill point.	#12 x 8" Max. Length #3 Phillips head.	GAF
2.	Drill-Tec™ #14 Fastener	Truss head, self-drilling, pinch point, high thread fastener for use in steel, wood or concrete decks.	#14 x 16" Max. Length #3 Phillips head.	GAF
3.	Drill-Tec™ XHD Fastener	Truss head, self-drilling, pinch point, high thread fastener for use in wood or steel decks. Carbon steel extra heavy-duty fastener used in steel decks.	#15 x 16" Max. Length #3 Phillips head.	GAF
4.	Drill-Tec™ 3" Steel Plate	Round Galvalume® steel stress plate with reinforcing ribs and recessed for use with Drill-Tec™ fasteners.	3" Round	GAF
5.	Drill-Tec™ 3" Standard Steel Plate	Galvalume® coated steel stress plate for use with approved Drill-Tec™ fasteners.	3" Round	GAF
6.	Drill-Tec™ ASAP 3S	Drill-Tec™ #12 fastener with Drill-Tec™ 3" Standard Steel Plate.	#12 x 8" Max. Length #3 Phillips head with 3" Round plate	GAF
7.	Drill-Tec™ AccuTrac® Flat Plate	A2-SS aluminized steel plate for use with Drill-Tec™ fasteners.	3" square; .017" thick	GAF
8.	Drill-Tec™ AccuTrac® Recessed Plate	Galvalume® steel plate with recess for use with Drill-Tec™ fasteners.	3" square; .017" thick.	GAF
9.	Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat)	Round Galvalume® plated steel stress plate with reinforcing ribs for use with Drill-Tec™ fasteners.	3" Round	GAF

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Description	Date
FM Approvals	3001276	FMRC 4470	01/28/99
	3010215	FMRC 4470	03/01/01
	3029832	FMRC 4470	05/11/07
	3036980	FMRC 4470	08/14/09
	3034312	FMRC 4470	04/09/09
	3040738	FMRC 4470	05/18/12
	3042887	FMRC 4470	11/14/11
	3046081	FMRC 4470	02/13/13
	3043633	FMRC 4470	01/20/12
	1B9A8.AM	FMRC 4470	09/04/97
	3B9Q1.AM	FMRC 4470	01/08/08
	3D4Q2.AM	FMRC 4470	04/30/97
	0D1A8.AM	FMRC 4470	04/01/98
	797-03221-267	FMRC 4470	09/24/07
	797-10228-267	FMRC 4470	01/15/15
	797-04694-267	FMRC 4470	06/17/09
	797-03825-267	FMRC 4470	07/14/08
	RR203450	FMRC 4470	12/04/15
	FM Letter	FMRC 4470	04/11/13
	FM Letter	FMRC 4470	09/15/15
UL LLC	R10689	UL 790	06/21/24
	R1306	UL 790	08/12/24
IRT-ARCON Inc.	02-005	TAS 114-J	07/19/04
	02-014	TAS 114-J	04/08/02
Trinity|ERD	G30250.02.10-3-R2	ASTM D3909	06/03/15
	G32520.06.11	ASTM D1876	06/28/11
	G34140.04.11-4-R2	ASTM D4601	6/4/2015
	G34140.04.11-5-R3	ASTM D4897	6/4/2015
	G36780.07.11-R1	TAS 114-J	07/18/11
	G40630.01.14-2B-R1	ASTM D6164	01/16/15
	G40630.01.14-2C	ASTM D6164	01/07/14
	G46160.02.15	ASTM D6163	02/12/15
	G46160.02.15-2D-1	ASTM D6163	02/09/16
	G46160.03.15	ASTM D6163	03/11/15
	G46160.09.14-3A	ASTM D6164	09/09/14
	SC6870.08.14-R1	ASTM D3909	09/04/14
	4q-GAF-21-SSMBB-01.A	ASTM D4601	09/07/21
	4q-GAF-22-SSMBB-01.A	ASTM D6164	04/22/23
	4S-GAF-18-001.01.19-1	ASTM D2178	01/02/19
	4S-GAF-18-001.03.19.A-R1	ASTM D6222	03/13/19
	4S-GAF-18-001.11.18	ASTM D6163	11/06/18
	G46160.09.14-3A	ASTM D6164	09/09/14
	GAF-SC13105.03.17-R1	ASTM D6164	03/23/17
PRI Construction Materials Technologies, LLC	GAF-122-02-01	TAS 139	05/07/06
	GAF-276-02-01Rev	ASTM E2178	01/04/11

EVIDENCE SUBMITTED: (CONTINUED)

Test Agency	Test Identifier	Description	Date
PRI Construction Materials Technologies, LLC	GAF-306-02-01	ASTM E96	07/07/11
	GAF-434-02-03	TAS 114-J	09/06/13
	GAF-434-02-04	TAS 114-J	09/06/13
	GAF-498-02-01	ASTM D6083	09/16/16
	GAF-559-02-01	TAS 117(B)	09/30/14
	GAF-559-02-04	ASTM D1876	10/01/14
	GAF-559-02-05	ASTM D1876	10/15/14
	GAF-559-02-06	TAS 114(H)	10/02/14
	GAF-559-02-07	ASTM D903	10/02/14
	GAF-559-02-08	ASTM D903	10/02/14
	GAF-559-02-09	ASTM D903	10/02/14
	GAF-559-02-11	TAS 114-J	10/14/14
	GAF-559-02-12	TAS 114-J	10/14/14
	GAF-559-02-13	TAS 114-J	10/15/14
	GAF-559-02-14	TAS 114-J	10/15/14
	GAF-559-02-15	TAS 114-J	10/15/14
	GAF-559-02-16	TAS 114-J	10/15/14
	GAF-559-02-18	TAS 114-J	10/15/14
	GAF-559-02-19	TAS 114-J	04/16/15
PRI Construction Materials Technologies, LLC	376T0140	ASTM D6164	08/18/21
	376T0141	ASTM D6163	01/26/22
	376T0143	ASTM D6222	08/23/21
	376T0144	ASTM D6222	08/26/21
	376T0192	ASTM D 226	09/16/21
	376T0220	ASTM D6164	03/08/22
	376T0221	ASTM D6164	01/17/22
	376T0222	ASTM D6222	01/18/22
	376T0227	ASTM D4897	12/20/21
	376T0228	ASTM D4897	12/20/21
	376T0229	ASTM D4601	12/20/21
	376T0230	ASTM D6222	03/24/22
	376T0240	ASTM D4601	12/21/21
	376T0270	Proprietary	01/14/22
	376T0272	ASTM D3909	02/03/22
	376T0273	ASTM D6222	05/04/22
	376T0274	ASTM D6222	05/04/22
	376T0275	ASTM D2178	01/31/22
	376T0480	ASTM D6163	02/29/24
	376T0481	ASTM D6164	02/29/24
	376T0482	ASTM D6164	02/29/24
	376T0483	ASTM D6164	02/29/24
	376T0486	ASTM D6164	02/29/24
	824T0047	ASTM D6163	06/30/22
	824T0051	ASTM D6164	06/09/22
Dynatech Engineering Corporation	#4482.02.95-1	TAS 114-C	09/01/95

APPROVED ASSEMBLIES

Membrane Type: SBS

Deck Type 1I: Wood, Insulated

Deck Description: Min. 19/32" or greater plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.

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

All General and System Limitations shall apply.

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Roof Deck Protection or VersaShield® Solo™ Fire-Resistant Slip Sheet.

Anchor sheet: GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Stratavent® Nailable Venting Base Sheet, Ruberoid® 20 Smooth, Ruberoid® HW Smooth or Ruberoid® HW 25 Smooth base sheet mechanically fastened to deck as described below.

Fastening Option #1: GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above anchor sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9" o.c. at the lap staggered and in two rows 18" o.c. in the field.
(Maximum Design Pressure –45 psf. See General Limitation #9)

Fastening Option #2: GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above anchor sheets attached to deck with Drill-Tec™ #12 Fastener, Drill-Tec™ #14 Fastener or Drill-Tec™ XHD Fastener and Drill-Tec™ 3" Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 12" o.c. in 3 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 12.5" o.c. in the field of the sheet.
(Maximum Design Pressure –45 psf. See General Limitation #9)

Fastening Option #3: GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above anchor sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9" o.c. at the 4" lap staggered and in two rows 9" o.c. in the field.
(Maximum Design Pressure –52.5 psf. See General Limitation #7)

Fastening Option #4: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above anchor sheets attached to deck with Drill-Tec™ #12 Fastener, Drill-Tec™ #14 Fastener or Drill-Tec™ XHD Fastener and Drill-Tec™ 3" Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 12" o.c. in 4 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.
(Maximum Design Pressure –45 psf. See General Limitation #9)

Fastening Option #5: GAFGLAS® #80 Ultima™ Base Sheet, Ruberoid® 20 Smooth base sheet attached to deck approved annular ring shank nails and 3" inverted Drill-Tec™ 3" Steel Plate at a fastener spacing of 9" o.c. at the 4" lap staggered in two rows 9" in the field.
(Maximum Design Pressure –60 psf. See General Limitation #7)

Fastening Option #6: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above anchor sheets attached to deck with Drill-Tec™ #12 Fastener, Drill-Tec™ #14 Fastener or Drill-Tec™ XHD Fastener and Drill-Tec™ 3" Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 8" o.c. in 4 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.
(Maximum Design Pressure –45 psf. See General Limitation #9)

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
EnergyGuard™ Polyiso Insulation, EnergyGuard™ Polyiso RA Insulation, EnergyGuard™ Polyiso RN Insulation Minimum 1" thick	**N/A**	**N/A**
Structodek® High Density Fiber Board Minimum ½" 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 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down. GAF requires either a ply of GAFGLAS® Stratavent® Perforated Venting Base Sheet laid dry or wood fiber overlay board on all polyisocyanurate applications.

Base Sheet: (Optional) Install one ply of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet GAFGLAS® FlexPly™ 6, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® 20 Smooth, Ruberoid® HW Smooth or Ruberoid® HW 25 Smooth directly over the top layer of insulation. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. **(See General Limitation #4)**.
OR
GAFGLAS® Stratavent® Perforated Venting Base Sheet loose-laid dry.

Ply Sheet: (Optional, required over GAFGLAS® Stratavent® Perforated Venting Base Sheet loose-laid dry)One or more plies GAFGLAS® Ply 4, GAFGLAS® FlexPly™ 6 , GAFGLAS® #80 Ultima™ Base Sheet, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® 20 Smooth adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One or more plies of Ruberoid® 20 Smooth, Ruberoid® 30 Granule, Ruberoid® EnergyCap™ 30 Granule FR, Ruberoid® 30 Granule FR, Ruberoid® 30 Plus Granule FR, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF , Ruberoid® Mop Plus Granule FR fully adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of Approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Fiber Aluminum Roof Coating.

Maximum Design Pressure: **See Fastening Options**

Membrane Type: APP/SBS Heat Weld

Deck Type 1I: Wood, Insulated

Deck Description: Min. 19/32" or greater plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.

System Type A(2): Anchor sheet mechanically fastened, all layers of insulation adhered with approved asphalt.

All General and System Limitations shall apply.

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Roof Deck Protection, VersaShield® Solo™ Fire-Resistant Slip Sheet, DensDeck® Roof Board or SECUROCK® Gypsum-Fiber Roof Board.

Anchor sheet: GAFGLAS® #80 Ultima ™ Base Sheet, GAFGLAS® Stratavent® Nailable Venting Base Sheet, Ruberoid® 20 Smooth, Ruberoid® HW Smooth or Ruberoid® HW 25 Smooth base sheet mechanically fastened to deck as described below;

Fastening Option #1: GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above anchor sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9" o.c. at the lap staggered and in two rows 18" o.c. in the field.
Not for use with DensDeck or SECUROCK Fire Barrier
(Maximum Design Pressure –45 psf. See General Limitation #9)

Fastening Option #2: GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above anchor sheets attached to deck with Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener and Drill-Tec™ 3" Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 12" o.c. in 3 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 12.5" o.c. in the field of the sheet.
(Maximum Design Pressure –45 psf. See General Limitation #9)

Fastening Option #3: GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, or any of above anchor sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9" o.c. at the 4" lap staggered and in two rows 9" o.c. in the field.
Not for use with DensDeck or SECUROCK Fire Barrier
(Maximum Design Pressure –52.5 psf. See General Limitation #7)

Fastening Option #4: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above anchor sheets attached to deck with Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener and Drill-Tec™ 3" Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 12" o.c. in 4 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.
(Maximum Design Pressure –45 psf. See General Limitation #9)

Fastening Option #5: GAFGLAS® #80 Ultima™ Base Sheet, Ruberoid® 20 Smooth base sheet attached to deck approved annular ring shank nails and 3" inverted Drill-Tec™ 3" Steel Plate at a fastener spacing of 9" o.c. at the 4" lap staggered in two rows 9" in the field.
Not for use with DensDeck and SECUROCK Fire Barrier
(Maximum Design Pressure –60 psf. See General Limitation #7)

Fastening Option #6: GAFGLAS® #75 Base Sheet, Tri-Ply #75 Base Sheet, or any of above anchor sheets attached to deck with Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener and Drill-Tec™ 3" Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 8" o.c. in 4 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.
(Maximum Design Pressure –45 psf. See General Limitation #9)

One or more layers of any of the following insulations.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ RA Polyiso Insulation Minimum 1" thick	**N/A**	**N/A**
Structodek® High Density Fiber Board Minimum ½" 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. GAF requires either a ply of GAFGLAS® Stratavent® Perforated Venting Base Sheet laid dry or wood fiber overlay board on all polyisocyanurate applications.

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Ply 4, GAFGLAS® FlexPly™ 6, Ruberoid® Mop Smooth 1.5, Ruberoid Mop Plus Smooth, Ruberoid® 20 Smooth, Ruberoid® HW Smooth or Ruberoid® HW 25 Smooth directly over the top layer of insulation. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
(See General Limitation #4).
OR
GAFGLAS® Stratavent® Perforated Venting Base Sheet loose-laid dry.

Ply Sheet: (Optional except over Ruberoid® 20 Smooth, Ruberoid® HW Smooth or Ruberoid® HW 25 Smooth or GAFGLAS® Stratavent® Perforated Venting Base Sheet loose-laid dry) One or more plies GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6 or GAFGLAS® #80 Ultima™ 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 Ruberoid® Torch Smooth or Tri-Ply® APP Smooth Membrane torch applied according to manufacturer's application instructions (Ruberoid® Torch Smooth or Tri-Ply® APP Smooth Membrane not to be used over GAFGLAS® Stratavent® Perforated Venting Base Sheet).

Membrane: One ply of Ruberoid® Torch Smooth, Tri-Ply® APP Smooth Membrane, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule FR, Ruberoid® EnergyCap™ Torch Granule FR torch applied according to manufacturer's application instructions.

Or

One or more plies of Ruberoid® HW Plus Granule, Ruberoid® HW Plus Granule FR, Ruberoid® HW Granule FR, Ruberoid® EnergyCap™ HW Plus Granule FR, Ruberoid® HW Granule, Ruberoid® HW Smooth and Ruberoid® HW 25 Smooth applied according to manufacturer's application instructions.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of Approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® Mineral Surfaced Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Maximum Design Pressure: **See Fastening Options**

Membrane Type: SBS

Deck Type 1I: Wood, Insulated

Deck Description: Min. 15/32" thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.

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

All General and System Limitations shall apply.

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.

Anchor sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.

Fastening Option #1: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –45 psf, See General Limitation #7)

Fastening Option #2: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #3: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #4: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –67.5 psf, See General Limitation #7)

Fastening Option #5: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows.
(Maximum Design Pressure –75 psf, See General Limitation #7)

One or more of any of the following.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RH Tapered Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Structodek® High Density Fiber Board Roof Insulation		
Minimum ½" thick	**N/A**	**N/A**
SECUROCK® Gypsum-Fiber Roof Board, DensDeck® Prime		
Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet or Tri-Ply® #75 Base Sheet. Adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (**See General Limitation #4**).

Ply Sheet: Ruberoid® 20 Smooth adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: Ruberoid® 30 Granule FR, Ruberoid® 30 Plus Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR, Ruberoid® EnergyCap™ Mop Plus Granule FR, Ruberoid® EnergyCap™ 30 Granule FR, GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. Fiber Aluminum Roof Coating.

Maximum Design Pressure: **See Fastening Options**

Membrane Type: SBS

Deck Type 1I: Wood, Insulated

Deck Description: Min. 15/32" thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.

System Type A(4): All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently fully adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.

Anchor sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.

Fastening Option #1: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –45 psf, See General Limitation #7)

Fastening Option #2: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #3: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #4: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –67.5 psf, See General Limitation #7)

Fastening Option #5: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows.
(Maximum Design Pressure –75 psf, See General Limitation #7)

One or more of the any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RH Tapered Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Structodek® High Density Fiber Board		
Minimum ½" thick	***N/A***	**N/A**
SECUROCK® Gypsum-Fiber Roof Board, DensDeck® Prime		
Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered in a 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.

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet or Tri-Ply® #75 Base Sheet. Adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (**See General Limitation #4**).

Ply Sheet: Ruberoid® Mop Smooth 1.5 or Ruberoid® 20 Smooth adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR or Ruberoid® EnergyCap™ Mop Plus Granule FR adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Fiber Aluminum Roof Coating.

Maximum Design Pressure: **See Fastening Options**

Membrane Type:	SBS
Deck Type 1I:	Wood, Insulated
Deck Description:	Min. 15/32" thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type A(5):	All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently fully adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: (optional)	FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet:	GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.
Fastening Option #1:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –45 psf, See General Limitation #7)***
Fastening Option #2:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #3:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #4:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –67.5 psf, See General Limitation #7)***
Fastening Option #5:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. ***(Maximum Design Pressure –75 psf, See General Limitation #7)***

One or more of any of the following insulations.

Base Layer Insulation	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RH Tapered Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**
Top Layer Insulation	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Structodek® High Density Fiber Board		
Minimum ½" thick	**N/A**	**N/A**
SECUROCK® Gypsum-Fiber Roof Board, DensDeck® Prime		
Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered in a 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.

Base Sheet: Install one or more plies of Ruberoid® 20 Smooth adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (**See General Limitation #4**).

Membrane: Ruberoid® 30 Granule FR, Ruberoid® 30 Plus Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR, Ruberoid® EnergyCap™ Mop Plus Granule FR, Ruberoid® EnergyCap™ 30 Granule FR GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. Fiber Aluminum Roof Coating.

Maximum Design Pressure: **See Fastening Options**

Membrane Type:	SBS
Deck Type 1I:	Wood, Insulated
Deck Description:	Min. 15/32" thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type A(6):	All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently fully adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: (optional)	FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet:	GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.
Fastening Option #1:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –45 psf, See General Limitation #7)***
Fastening Option #2:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #3:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #4:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –67.5 psf, See General Limitation #7)***
Fastening Option #5:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. ***(Maximum Design Pressure –75 psf, See General Limitation #7)***

One or more of any of the following insulations.

Base Layer Insulation	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RH Tapered Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**
Top Layer Insulation	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Structodek® High Density Fiber Board		
Minimum ½" thick	**N/A**	**N/A**
SECUROCK® Gypsum-Fiber Roof Board, DensDeck® Prime		
Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered in a 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.

Base Sheet: Install one or more plies of Ruberoid® Mop Smooth 1.5 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (**See General Limitation #4**).

Membrane: Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR or Ruberoid® EnergyCap™ Mop Plus Granule FR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Fiber Aluminum Roof Coating.

Maximum Design Pressure: **See Fastening Options**

Membrane Type:	SBS
Deck Type 1I:	Wood, Insulated
Deck Description:	Min. 15/32" thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type A(7):	All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently fully adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: (optional)	FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet:	GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.
Fastening Option #1:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –45 psf, See General Limitation #7)***
Fastening Option #2:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #3:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #4:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –67.5 psf, See General Limitation #7)***
Fastening Option #5:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. ***(Maximum Design Pressure –75 psf, See General Limitation #7)***

One or more of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RH Tapered Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
One of the following.		
Structodek® High Density Fiber Board		
Minimum ½" thick	**N/A**	**N/A**
SECUROCK® Gypsum-Fiber Roof Board, DensDeck® Prime		
Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered in a 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.

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet or Tri-Ply® #75 Base Sheet. Adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (**See General Limitation #4**).

Membrane: Ruberoid® 30 Granule FR, Ruberoid® 30 Plus Granule FR, Ruberoid® EnergyCap™ 30 Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR or Ruberoid® EnergyCap™ Mop Plus Granule FR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Fiber Aluminum Roof Coating.

Maximum Design Pressure: **See Fastening Options**

Membrane Type:	SBS
Deck Type 1I:	Wood, Insulated
Deck Description:	Min. 15/32" thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type A(8):	All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently fully adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: (optional)	FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet:	GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.
Fastening Option #1:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –45 psf, See General Limitation #7)***
Fastening Option #2:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #3:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #4:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –67.5 psf, See General Limitation #7)***
Fastening Option #5:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. ***(Maximum Design Pressure –75 psf, See General Limitation #7)***

One or more of any of the following insulations.

Base Layer Insulation	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RH Tapered Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**
Top Layer Insulation	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Structodek® High Density Fiber Board		
Minimum ½" thick	**N/A**	**N/A**
SECUROCK® Gypsum-Fiber Roof Board, DensDeck® Prime		
Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered in a 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.

Base Sheet: Two or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet or GAFGLAS® FlexPly™ 6 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (**See General Limitation #4**).

Membrane: Ruberoid® 30 Granule FR, Ruberoid® 30 Plus Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR, Ruberoid® EnergyCap™ Mop Plus Granule FR, Ruberoid® EnergyCap™ 30 Granule FR, GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. Fiber Aluminum Roof Coating.

Maximum Design Pressure: **See Fastening Options**

Membrane Type:	SBS
Deck Type 1I:	Wood, Insulated
Deck Description:	Min. 15/32" thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type A(9):	All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently fully adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: (optional)	FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet:	GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.
Fastening Option #1:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –45 psf, See General Limitation #7)***
Fastening Option #2:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #3:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #4:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –67.5 psf, See General Limitation #7)***
Fastening Option #5:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. ***(Maximum Design Pressure –75 psf, See General Limitation #7)***

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RH Tapered Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Structodek® High Density Fiber Board		
Minimum ½" thick	**N/A**	**N/A**
SECUROCK® Gypsum-Fiber Roof Board, DensDeck® Prime		
Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: Install one ply of Ruberoid® 20 Smooth adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (**See General Limitation #4**).

Ply Sheet: Ruberoid® Mop Smooth 1.5 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR or Ruberoid® EnergyCap™ Mop Plus Granule FR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Fiber Aluminum Roof Coating.

Maximum Design Pressure: **See Fastening Options**

Membrane Type:	SBS
Deck Type 1I:	Wood, Insulated
Deck Description:	Min. 15/32" thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type A(10):	All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently partially adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: (optional)	FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet:	GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.
Fastening Option #1:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –45 psf, See General Limitation #7)***
Fastening Option #2:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #3:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #4:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –67.5 psf, See General Limitation #7)***
Fastening Option #5:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. ***(Maximum Design Pressure –82.5 psf, See General Limitation #7)***

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RH Tapered Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**

Note: All insulation shall be adhered in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: GAFGLAS® Stratavent® Perforated Venting Base Sheet is loose laid over the insulation with 2 in. side laps

Membrane: Ruberoid® 30 Granule FR, Ruberoid® 30 Plus Granule FR, Ruberoid® EnergyCap™ 30 Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR, Ruberoid® EnergyCap™ Mop Plus Granule FR or Tri-Ply® SBS Granule Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Fiber Aluminum Roof Coating.

Maximum Design Pressure: **See Fastening Options**

Membrane Type:	SBS
Deck Type 1I:	Wood, Insulated
Deck Description:	Min. 15/32" thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type A(11):	All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently partially adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: (optional)	FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet, or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet:	GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.
Fastening Option #1:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –45 psf, See General Limitation #7)***
Fastening Option #2:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #3:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #4:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –67.5 psf, See General Limitation #7)***
Fastening Option #5:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. ***(Maximum Design Pressure –82.5 psf, See General Limitation #7)***

One or more layers of any of the following insulations.

Base Layer Insulation	Insulation Fasteners (Table 3)	Fastener Density/ft^2
EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RH Tapered Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**

Note: All insulation shall be adhered in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: GAFGLAS® Stratavent® Perforated Venting Base Sheet is loosely-laid over the insulation with 2 in. side laps

Ply Sheet: Two or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet or GAFGLAS® FlexPly™ 6 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (**See General Limitation #4**).

Membrane: Ruberoid® 30 Granule FR, Ruberoid® 30 Plus Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR, Ruberoid® EnergyCap™ Mop Plus Granule FR, Ruberoid® EnergyCap™ 30 Granule FR, GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. Fiber Aluminum Roof Coating.

Maximum Design Pressure: **See Fastening Options**

Membrane Type:	SBS
Deck Type 1I:	Wood, Insulated
Deck Description:	Min. 15/32" thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type A(12):	All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently partially adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: (optional)	FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet:	GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.
Fastening Option #1:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –45 psf, See General Limitation #7)***
Fastening Option #2:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #3:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #4:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –67.5 psf, See General Limitation #7)***
Fastening Option #5:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. ***(Maximum Design Pressure –82.5 psf, See General Limitation #7)***

One or more layers of any of the following insulations.

Insulation for Base Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RH Tapered Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**

Note: All insulation shall be adhered in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: GAFGLAS® Stratavent® Perforated Venting Base Sheet is loosely-laid over the insulation with 2 in. side laps

Ply Sheet: Install one or more plies of Ruberoid® 20 Smooth adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (**See General Limitation #4**).

Membrane: Ruberoid® 30 Granule FR, Ruberoid® 30 Plus Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR, Ruberoid® EnergyCap™ Mop Plus Granule FR, Ruberoid® EnergyCap™ 30 Granule FR, GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. Fiber Aluminum Roof Coating.

Maximum Design Pressure: **See Fastening Options**

Membrane Type:	SBS
Deck Type 1I:	Wood, Insulated
Deck Description:	Min. 15/32" thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type A(13):	All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently partially adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: (optional)	FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet:	GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.
Fastening Option #1:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –45 psf, See General Limitation #7)***
Fastening Option #2:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #3:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #4:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –67.5 psf, See General Limitation #7)***
Fastening Option #5:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. ***(Maximum Design Pressure –82.5 psf, See General Limitation #7)***

One or more layers of any of the following insulations.

Insulation for Base Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RH Tapered Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**

Note: All insulation shall be adhered in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: GAFGLAS® Stratavent® Perforated Venting Base Sheet is loosely-laid over the insulation with 2 in. side laps

Ply Sheet: Install one or more plies of Ruberoid® Mop Smooth 1.5 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (**See General Limitation #4**).

Membrane: Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR, Ruberoid® EnergyCap™ Mop Plus Granule FR, GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. Fiber Aluminum Roof Coating.

Maximum Design Pressure: **See Fastening Options**

Membrane Type:	SBS
Deck Type 1I:	Wood, Insulated
Deck Description:	Min. 15/32" thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type A(14):	All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently partially adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: (optional)	FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet, VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet:	GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.
Fastening Option #1:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –45 psf, See General Limitation #7)***
Fastening Option #2:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #3:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #4:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –67.5 psf, See General Limitation #7)***
Fastening Option #5:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. ***(Maximum Design Pressure –82.5 psf, See General Limitation #7)***

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RH Tapered Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**

Note: All insulation shall be adhered in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: GAFGLAS® Stratavent® Perforated Venting Base Sheet is loosely-laid over the insulation with 2 in. side laps

Interply Sheet: Install one ply of Ruberoid® 20 Smooth adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (**See General Limitation #4**).

Ply Sheet: Ruberoid® Mop Smooth 1.5 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR or Ruberoid® EnergyCap™ Mop Plus Granule FR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Fiber Aluminum Roof Coating.

Maximum Design Pressure: **See Fastening Options**

Membrane Type: SBS

Deck Type 1I: Wood, Insulated

Deck Description: Min. 19/32" or greater plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max

System Type B(1): Base layer of insulation is mechanically attached to roof deck. Any subsequent layers are then adhered to base layer of insulation. Membrane is subsequently fully or partially adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Roof Deck Protection, VersaShield® Solo™ Fire-Resistant Slip Sheet, DensDeck® Roof Board or SECUROCK® Gypsum-Fiber Roof Board

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
EnergyGuard™ RA Polyiso Insulation Minimum 2.0" thick	**1, 2, 4, 5**	**1:3.2 ft²**
EnergyGuard™ Polyiso Insulation Minimum 1.5" thick	**1, 2, 4, 5**	**1:2 ft²**
Structodek® High Density Fiber Board Minimum 1" thick	**1, 2, 4, 5**	**1:2 ft²**

Note: Base layers of insulation shall be mechanically attached using the fastener density listed. 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 Protocol TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment. GAF requires either a ply of GAFGLAS® Stratavent® Perforated Venting Base Sheet laid dry or wood fiber overlay board on all polyisocyanurate applications.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Any of the insulation listed for Base Layer, above. Minimum thickness same as above	**N/A**	**N/A**
Structodek® High Density Fiber Board Minimum ½" thick	**N/A**	**N/A**

Note: Optional top layer of insulation shall be adhered with 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. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: (Optional) Install one ply of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth or Ruberoid® 20 Smooth directly over the top layer of insulation. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; **(See General Limitation #4).**
OR
GAFGLAS® Stratavent® Perforated Venting Base Sheet loose laid dry (not for use with wood fiber board or perlite top layer insulation).

Ply Sheet: (Optional) One or more plies GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6 sheet or GAFGLAS® #80 Ultima™ Base Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One or more plies of Ruberoid® 20 Smooth, Ruberoid® 30 Granule, Ruberoid® EnergyCap™ 30 Granule FR, Ruberoid® 30 Granule FR, Ruberoid® 30 Plus Granule FR, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Plus Granule FR or Ruberoid® EnergyCap™ Mop Plus Granule FR fully adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of Approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Fiber Aluminum Roof Coating.

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

Membrane Type: APP/SBS Heat Weld

Deck Type 1I: Wood, Insulated

Deck Description: Min. 19/32" or greater plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.

System Type B(2): Base layer of insulation is mechanically attached to roof deck. Any subsequent layers are then adhered to base layer of insulation. Membrane is subsequently fully or partially adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Roof Deck Protection or Securock® Gypsum-Fiber Roof Board.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
EnergyGuard™ RA Polyiso Insulation Minimum 2.0" thick	**1, 2, 4, 5**	**1:3.2 ft²**
EnergyGuard™ Polyiso Insulation Minimum 1.5" thick	**1, 2, 4, 5**	**1:2 ft²**
Structodek® High Density Fiber Board Minimum 1" thick	**1, 2, 4, 5**	**1:2 ft²**

Note: Base layers of insulation shall be mechanically attached using the fastener density listed. 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 Protocol TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment. GAF requires either a ply of GAFGLAS® Stratavent® Perforated Venting Base Sheet laid dry or wood fiber overlay board on all polyisocyanurate applications.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Any of the insulation listed for Base Layer, above. Minimum thickness same as above	**N/A**	**N/A**
Structodek® High Density Fiber Board Minimum ½" thick	**N/A**	**N/A**

Note: Optional top layer of insulation shall be adhered with 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. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet:	Install one ply of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, Ruberoid® Mop Smooth 1.5, Ruberoid Mop Plus Smooth, Ruberoid® 20 Smooth, Ruberoid® HW Smooth or Ruberoid® HW 25 Smooth directly over the top layer of insulation. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; **(See General Limitation #4).** OR GAFGLAS® Stratavent® Perforated Venting Base Sheet loose laid dry (not for use with wood fiber board or perlite top layer insulation).
Ply Sheet:	(Optional, required when using Ruberoid® 20 Smooth) One or more plies GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6 sheet or GAFGLAS® #80 Ultima™ Base Sheet adhered 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 Ruberoid® Torch Smooth, Tri-Ply® APP Smooth Membrane, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule FR, Ruberoid® EnergyCap™ Torch Granule FR torch applied according to manufacturer's application instructions. Or One or more plies of Ruberoid® HW Plus Granule, Ruberoid® HW Plus Granule FR, Ruberoid® HW Granule FR, Ruberoid® EnergyCap™ HW Plus Granule FR, Ruberoid® HW Granule, Ruberoid® HW Smooth and Ruberoid® HW 25 Smooth applied according to manufacturer's application instructions.
Surfacing:	**Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**
1.	Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of Approved asphalt at 60 lbs./sq.
2.	GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3.	Fiber Aluminum Roof Coating.
Maximum Design Pressure:	**-45 psf. (See General Limitation #9)**

Membrane Type: SBS

Deck Type 1I: Wood, Insulated

Deck Description: Min. 19/32" or greater plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.

System Type C(1): All layer of insulation are mechanically attached to roof deck. Membrane is subsequently fully or partially adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Roof Deck Protection, VersaShield® Solo™ Fire-Resistant Slip Sheet, DensDeck® Roof Board or SECUROCK® Gypsum-Fiber Roof Board

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ RA Polyiso Insulation Minimum 1.3" thick	**N/A**	**N/A**
EnergyGuard™ Polyiso Insulation Minimum 1.4" 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**
EnergyGuard™ RA Polyiso Insulation Minimum 2.0" thick	**1, 2, 4, 5**	**1:3.2 ft²**
EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ Polyiso Insulation Minimum 1.5" thick	**1, 2, 4, 5**	**1:2 ft²**
Structodek® High Density Fiber Board Minimum 1" thick	**1, 2, 4, 5**	**1:2 ft²**

Note: 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. GAF requires either a ply of GAFGLAS® Stratavent® Perforated Venting Base Sheet laid dry or wood fiber overlay board on all polyisocyanurate applications.

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth or Ruberoid® 20 Smooth directly over the top layer of insulation. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. If base sheet is applied directly to polyisocyanurate insulation only a spot or strip mopped application as detailed in this approval the use of an overlay board is approved; **(See General Limitation #4).**
OR
GAFGLAS® Stratavent® Perforated Venting Base Sheet loose laid dry (not for use with wood fiber board or perlite top layer insulation).

Ply Sheet: (Optional) One or more plies GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6 or GAFGLAS® #80 Ultima™ Base Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One or more plies of Ruberoid® 20 Smooth, Ruberoid® 30 Granule, Ruberoid® EnergyCap™ 30 Granule FR, Ruberoid® 30 Granule FR, Ruberoid® 30 Plus Granule FR, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Granule FR, Ruberoid® Mop Granule, Ruberoid® Mop Plus Granule FR fully adhered in an approved asphalt at an application rate of 20-40 lbs./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of Approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Fiber Aluminum Roof Coating.

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

Membrane Type: APP/SBS Heat Weld

Deck Type 1I: Wood, Insulated

Deck Description: Min. 19/32" or greater plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.

System Type C(2): All layers of insulation are mechanically attached to roof deck. Membrane is subsequently fully or partially adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Roof Deck Protection, VersaShield® Solo™ Fire-Resistant Slip Sheet, DensDeck® Roof Board or SECUROCK® Gypsum-Fiber Roof Board.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation Minimum 1.3" thick	**N/A**	**N/A**
EnergyGuard™ Polyiso Insulation Minimum 1.4" 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
EnergyGuard™ RA Polyiso Insulation Minimum 2.0" thick	**1, 2, 4, 5**	**1:3.2 ft²**
EnergyGuard™ Polyiso Insulation Minimum 1.5" thick	**1, 2, 4, 5**	**1:2 ft²**
Structodek® High Density Fiber Minimum 1" thick	**1, 2, 4, 5**	**1:2 ft²**

Note: 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. GAF requires either a ply of GAFGLAS® Stratavent® Perforated Venting Base Sheet laid dry or wood fiber overlay board on all polyisocyanurate applications.

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth or Ruberoid® 20 Smooth directly over the top layer of insulation. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. If base sheet is applied directly to polyisocyanurate insulation only a spot or strip mopped application as detailed in this approval the use of an overlay board is approved; **(See General Limitation #4).**
OR
GAFGLAS® Stratavent® Perforated Venting Base Sheet loose laid dry (not for use with wood fiber board or perlite top layer insulation).

Ply Sheet: (Optional, required when using Ruberoid® 20 Smooth) One or more plies GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6 or GAFGLAS® #80 Ultima™ Base Sheet adhered 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 Ruberoid® Torch Smooth, Tri-Ply® APP Smooth Membrane, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule FR, Ruberoid® EnergyCap™ Torch Granule FR torch applied according to manufacturer's application instructions.
Or
One or more plies of Ruberoid® HW Plus Granule, Ruberoid® HW Plus Granule FR, Ruberoid® HW Granule FR, Ruberoid® EnergyCap™ HW Plus Granule FR, Ruberoid® HW Granule, Ruberoid® HW Smooth and Ruberoid® HW 25 Smooth applied according to manufacturer's application instructions.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of Approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Fiber Aluminum Roof Coating.

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

Membrane Type: SBS/SBS Cold Applied

Deck Type 1I: Wood, Insulated

Deck Description: Min. 19/32" or greater plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.

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

All General and System Limitations shall apply.

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Roof Deck Protection, VersaShield® Solo™ Fire-Resistant Slip Sheet, DensDeck® Roof Board or SECUROCK® Gypsum-Fiber Roof.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation, Structodek® High Density Fiber Board Minimum 1" thick	**N/A**	**N/A**

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Stratavent® Nailable Venting Base Sheet or Ruberoid® 20 Smooth applied over the loose laid insulation with 2" side laps mechanically fastened to deck as described below;

Fastening Option #1: Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener and Drill-Tec™ 3" Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed through the base sheet and insulation in 3 rows 12" o.c. One row is in the 2" side lap. The other rows are equally spaced approximately 12.5" o.c. in the field of the sheet.

Fastening Option #2: Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener and Drill-Tec™ 3" Steel Plates in 4 rows 12" o.c. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.

Fastening Option #3: Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener and Drill-Tec™ 3" Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed through the base sheet and insulation in 4 rows 8" o.c. One row is in the 2" side lap. The other 3 rows are equally spaced approximately 9" o.c. in the field of the sheet.

Ply Sheet: (Optional) One or more plies GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #80 Ultima™ Base Sheet, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth or Ruberoid® 20 Smooth adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One or more plies of Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth Ruberoid® Mop Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® 20 Smooth, Ruberoid® 30 Granule, Ruberoid® EnergyCap™ 30 Granule FR, Ruberoid® 30 Granule FR, Ruberoid® 30 Plus Granule FR or Ruberoid® Mop Plus Granule FR in 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 Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF,, Ruberoid® Mop Granule FR Ruberoid® 20 Smooth, Ruberoid® 30 Granule, Ruberoid® EnergyCap™ 30 Granule FR, Ruberoid® 30 Granule FR, Ruberoid® 30 Plus Granule FR or Ruberoid® Mop Plus Granule FR adhered in Matrix™ 102 SBS Membrane Adhesive at an application rate of 1-2 gal./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of Approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Fiber Aluminum Roof Coating.

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

Membrane Type: APP/SBS Heat Weld

Deck Type 1I: Wood, Insulated

Deck Description: Min. 19/32" or greater plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.

System Type D(2): All insulation is loose laid with preliminary attachment to roof deck. Anchor sheet is subsequently mechanically fastened through insulation to the roof deck.

All General and System Limitations shall apply.

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Roof Deck Protection, VersaShield® Solo™ Fire-Resistant Slip Sheet, DensDeck® Roof Board or SECUROCK® Gypsum-Fiber Roof.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation Minimum 1.3" thick	**N/A**	**N/A**
Structodek® High Density Fiber Board Minimum 1" thick	**N/A**	**N/A**

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Stratavent® Nailable Venting Base Sheet or Ruberoid® 20 Smooth base sheet applied over the loose laid insulation with 2" side laps mechanically fastened to deck as described below;

Fastening Option #1: Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener or and Drill-Tec™ 3" Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed through the base sheet and insulation in 3 rows 12" o.c. One row is in the 2" side lap. The other rows are equally spaced approximately 12.5" o.c. in the field of the sheet.

Fastening Option #2: Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener or and Drill-Tec™ 3" Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed in 4 rows 12" o.c. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.

Fastening Option #3: Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener or and Drill-Tec™ 3" Steel Plate installed through the base sheet and insulation in 4 rows 8" o.c. One row is in the 2" side lap. The other 3 rows are equally spaced approximately 9" o.c. in the field of the sheet.

Ply Sheet: (Optional) One or more plies GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6 sheet or GAFGLAS® #80 Ultima™ Base Sheet adhered 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 Ruberoid® Torch Smooth, Tri-Ply® APP Smooth, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule FR, Tri-Ply® APP Granule, Ruberoid® EnergyCap™ Torch Granule FR torch applied according to manufacturer's application instructions.
Or
One or more plies of Ruberoid® HW Plus Granule, Ruberoid® HW Plus Granule FR, Ruberoid® HW Granule FR, Ruberoid® EnergyCap™ HW Plus Granule FR, Ruberoid® HW Granule, Ruberoid® HW Smooth and Ruberoid® HW 25 Smooth applied according to manufacturer's application instructions.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of Approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Fiber Aluminum Roof Coating.

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

Membrane Type: SBS/SBS Cold Applied

Deck Type 1: Wood, Non-insulated

Deck Description: Min. 19/32" or greater plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.

System Type E(1): Anchor sheet is mechanically attached to roof deck. (Non-insulated systems)

All General and System Limitations shall apply.

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Roof Deck Protection, VersaShield® Solo™ Fire-Resistant Slip Sheet, DensDeck® Roof Board or SECUROCK® Gypsum-Fiber Roof Board.

Base sheet: GAFGLAS® #80 Ultima ™ Base Sheet, GAFGLAS® Stratavent® Nailable Venting Base Sheet, Ruberoid® 20 Smooth, Ruberoid® HW Smooth or Ruberoid® HW 25 Smooth base sheet mechanically fastened to deck as described below:

Fastening Option #1: GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above base sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9" o.c. at the lap staggered and in two rows 18" o.c. in the field.
Not for use with DensDeck or SECUROCK Fire Barrier
(Maximum Design Pressure –45 psf. See General Limitation #9)

Fastening Option #2: GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above base sheets attached to deck with Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener and Drill-Tec™ 3" Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 12" o.c. in 3 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 12" o.c. in the field of the sheet.
(Maximum Design Pressure –45 psf. See General Limitation #9)

Fastening Option #3: GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above base sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9" o.c. at the 4" lap staggered and in two rows 9" o.c. in the field.
Not for use with DensDeck or SECUROCK Fire Barrier
(Maximum Design Pressure –52.5 psf. See General Limitation #7)

Fastening Option #4: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above base sheets attached to deck with Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener and Drill-Tec™ 3" Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 12" o.c. in 4 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.
(Maximum Design Pressure –45 psf. See General Limitation #9)

Fastening Option #5: GAFGLAS® #80 Ultima™ Base Sheet, Ruberoid® 20 Smooth base sheet attached to deck approved annular ring shank nails and 3" inverted Drill-Tec™ 3" Steel Plate at a fastener spacing of 9" o.c. at the 4" lap staggered in two rows 9" in the field.
Not for use with DensDeck or SECUROCK Fire Barrier
(Maximum Design Pressure –60 psf. See General Limitation #7)

Fastening Option #6:	GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above base sheets attached to deck with Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener and Drill-Tec™ 3" Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 8" o.c. in 4 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet. ***(Maximum Design Pressure –75 psf. See General Limitation #7)***
Ply Sheet:	(Optional) One or more plies GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #80 Ultima™ Base Sheet, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth or Ruberoid® 20 Smooth sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Membrane:	One or more plies of Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® 20 Smooth, Ruberoid® 30 Granule, Ruberoid® EnergyCap™ 30 Granule FR, Ruberoid® 30 Granule FR, Ruberoid® 30 Plus Granule FR, or Ruberoid® Mop Plus Granule FR in 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 Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, , Ruberoid® Mop Granule FR, Ruberoid® 20 Smooth, Ruberoid® 30 Granule, Ruberoid® EnergyCap™ 30 Granule FR, Ruberoid® 30 Granule FR, Ruberoid® 30 Plus Granule FR, or Ruberoid® Mop Plus Granule FR adhered in Matrix™ 102 SBS Membrane Adhesive at an application rate of 1-2 gal./sq.
Surfacing:	**Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**
1.	Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of Approved asphalt at 60 lbs./sq.
2.	GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3.	Fiber Aluminum Roof Coating.
Maximum Design Pressure:	**See Fastening Options**

Membrane Type: APP/SBS Heat Weld

Deck Type 1: Wood, Non-insulated

Deck Description: Min. 19/32" or greater plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.

System Type E(2): Anchor sheet is mechanically attached to roof deck. (Non-insulated systems)

All General and System Limitations shall apply.

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Roof Deck Protection, VersaShield® Solo™ Fire-Resistant Slip Sheet, DensDeck® Roof Board or SECUROCK® Gypsum-Fiber Roof.

Base sheet: GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Stratavent® Nailable Venting Base Sheet, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® 20 Smooth, Ruberoid® HW Smooth or Ruberoid® HW 25 Smooth mechanically fastened to deck as described below;

Fastening Option #1: GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above base sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9" o.c. at the lap staggered and in two rows 18" o.c. in the field.
Not for use with DensDeck or SECUROCK Fire Barrier
(Maximum Design Pressure –45 psf. See General Limitation #9)

Fastening Option #2: GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above base sheets attached to deck with Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener and Drill-Tec™ 3" Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 12" o.c. in 3 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 12.5" o.c. in the field of the sheet.
(Maximum Design Pressure –45 psf. See General Limitation #9)

Fastening Option #3: GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above base sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9" o.c. at the 4" lap staggered and in two rows 9" o.c. in the field.
Not for use with DensDeck or SECUROCK Fire Barrier
(Maximum Design Pressure –52.5 psf. See General Limitation #7)

Fastening Option #4: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above base sheets attached to deck with Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener and Drill-Tec™ 3" Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 12" o.c. in 4 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.
(Maximum Design Pressure –45 psf. See General Limitation #9)

Fastening Option #5:	GAFGLAS® #80 Ultima™ Base Sheet, Ruberoid® 20 Smooth, base sheet attached to deck approved annular ring shank nails and 3" inverted Drill-Tec™ 3" Steel Plate at a fastener spacing of 9" o.c. at the 4" lap staggered in two rows 9" in the field. Not for use with DensDeck or SECUROCK Fire Barrier ***(Maximum Design Pressure –60 psf. See General Limitation #7)***
Fastening Option #6:	GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above base sheets attached to deck with Drill-Tec™ #12 Fastener, Drill-Tec™ #14 Fastener or Drill-Tec™ XHD Fastener and Drill-Tec™ 3" Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 8" o.c. in 4 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet. ***(Maximum Design Pressure –45 psf. See General Limitation #9)***
Ply Sheet:	(Optional except over Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® 20 Smooth, Ruberoid® HW Smooth or Ruberoid® HW 25 Smooth) One or more plies GAFGLAS® Ply 4, Tri-Ply® Ply 4, or GAFGLAS® FlexPly™ 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or Ruberoid® Torch Smooth torch applied according to manufacturer's application instructions.
Membrane:	One ply of Ruberoid® Torch Smooth, Tri-Ply® APP Smooth Membrane, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule FR, Ruberoid® EnergyCap™ Torch Granule FR torch applied according to manufacturer's application instructions. Or One or more plies of Ruberoid® HW Plus Granule, Ruberoid® HW Plus Granule FR, Ruberoid® HW Granule FR, Ruberoid® EnergyCap™ HW Plus Granule FR, Ruberoid® HW Granule, Ruberoid® HW Smooth and Ruberoid® HW 25 Smooth applied according to manufacturer's application instructions.
Surfacing:	**Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**
1.	Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of Approved asphalt at 60 lbs./sq.
2.	GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3.	Fiber Aluminum Roof Coating.
Maximum Design Pressure:	**See Fastening Options**

Membrane Type:	SBS
Deck Type 1I:	Wood, Non-Insulated
Deck Description:	Min. 15/32" thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type E(3):	Anchor sheet is mechanically attached to roof deck. (Non-insulated systems)

All General and System Limitations shall apply.

Fire Barrier: (optional)	FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet:	GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.
Fastening Option #1:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –45 psf, See General Limitation #7)***
Fastening Option #2:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #3:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #4:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –60 psf, See General Limitation #7)***
Fastening Option #5:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. ***(Maximum Design Pressure –97.5 psf, See General Limitation #7)***
Membrane:	Ruberoid® 30 Granule FR, Ruberoid® 30 Plus Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR, Ruberoid® EnergyCap™ Mop Plus Granule FR or Ruberoid® EnergyCap™ 30 Granule FR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Fiber Aluminum Roof Coating.

Maximum Design Pressure: **See Fastening Options**

Membrane Type: SBS

Deck Type 1I: Wood, Non-Insulated

Deck Description: Min. 15/32" thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.

System Type E(4): Anchor sheet is mechanically attached to roof deck. (Non-insulated systems)

All General and System Limitations shall apply.

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.

Anchor sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.

Fastening Option #1: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –45 psf, See General Limitation #7)

Fastening Option #2: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #3: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #4: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –60 psf, See General Limitation #7)

Fastening Option #5: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows.
(Maximum Design Pressure –97.5 psf, See General Limitation #7)

Base Sheet: Two or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet or GAFGLAS® FlexPly™ 6 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (**See General Limitation #4**).

Membrane: Ruberoid® 30 Granule FR, Ruberoid® 30 Plus Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR, Ruberoid® EnergyCap™ Mop Plus Granule FR, Ruberoid® EnergyCap™ 30 Granule FR, GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet fully adhered in an approved asphalt at an application rate of 20-40 lbs./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. Fiber Aluminum Roof Coating.

Maximum Design Pressure: **See Fastening Options**

Membrane Type:	SBS
Deck Type 1I:	Wood, Non-Insulated
Deck Description:	Min. 15/32" thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type E(5):	Anchor sheet is mechanically attached to roof deck. (Non-insulated systems)

All General and System Limitations shall apply.

Fire Barrier: (optional)	FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet:	GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.
Fastening Option #1:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –45 psf, See General Limitation #7)***
Fastening Option #2:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #3:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #4:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –60 psf, See General Limitation #7)***
Fastening Option #5:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. ***(Maximum Design Pressure –97.5 psf, See General Limitation #7)***
Base Sheet:	Install one or more plies of Ruberoid® 20 Smooth adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (**See General Limitation #4**).

Membrane: Ruberoid® 30 Granule FR, Ruberoid® 30 Plus Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR, Ruberoid® EnergyCap™ Mop Plus Granule FR or Ruberoid® EnergyCap™ 30 Granule FRfully adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Or
GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. Fiber Aluminum Roof Coating.

Maximum Design Pressure: **See Fastening Options**

Membrane Type:	SBS
Deck Type 1I:	Wood, Non-Insulated
Deck Description:	Min. 15/32" thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type E(6):	Anchor sheet is mechanically attached to roof deck. (Non-insulated systems)

All General and System Limitations shall apply.

Fire Barrier: (optional)	FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet:	GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.
Fastening Option #1:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –45 psf, See General Limitation #7)***
Fastening Option #2:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #3:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #4:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –60 psf, See General Limitation #7)***
Fastening Option #5:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. ***(Maximum Design Pressure –97.5 psf, See General Limitation #7)***
Base Sheet:	Install one or more plies of Ruberoid® Mop Smooth 1.5 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (**See General Limitation #4**).
Membrane:	Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR or Ruberoid® EnergyCap™ Mop Plus Granule FR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Fiber Aluminum Roof Coating.

Maximum Design Pressure: **See Fastening Options**

Membrane Type:	SBS
Deck Type 1I:	Wood, Non-Insulated
Deck Description:	Min. 15/32" thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type E(7):	Anchor sheet is mechanically attached to roof deck. (Non-insulated systems)

All General and System Limitations shall apply.

Fire Barrier: (optional)	FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet:	GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.
Fastening Option #1:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –45 psf, See General Limitation #7)***
Fastening Option #2:	Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #3:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
Fastening Option #4:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. ***(Maximum Design Pressure –60 psf, See General Limitation #7)***
Fastening Option #5:	Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. ***(Maximum Design Pressure –97.5 psf, See General Limitation #7)***
Base Sheet:	Install one ply of Ruberoid® 20 Smooth adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (**See General Limitation #4**).
Ply Sheet:	Ruberoid® Mop Smooth 1.5 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR or Ruberoid® EnergyCap™ Mop Plus Granule FR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Fiber Aluminum Roof Coating.

Maximum Design Pressure: **See Fastening Options**

Membrane Type: SBS Cold Applied

Deck Type 1I: Wood, Non-Insulated

Deck Description: Min. 19/32" plywood or wood plank secured 6 in. o.c. with #8 wood screws to supports spaced 24 in. o.c. max.

System Type E(8): Anchor sheet is mechanically attached to roof deck. (Non-insulated systems)

All General and System Limitations shall apply.

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Roof Deck Protection or VersaShield® Solo™ Fire-Resistant Slip Sheet.

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet or GAFGLAS® Stratavent® Nailable Venting Base Sheet attached to deck with Drill-Tec™ #12 Fasteners and Drill-Tec™ 3" Steel Plate spaced 8 in. o.c. in the min. 2.0 in. wide side laps and 8 in. o.c in three equally spaced, staggered rows in the field of the sheet.

Base Ply: GAFGLAS® FlexPly™ 6 adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. in accordance with manufacturer's instructions.

Membrane: One or more plies of Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid Mop Granule or Intec Flex PRF adhered in Matrix™ 102 SBS Membrane Adhesive at an application rate of 1.5 gal./sq.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Fiber Aluminum Roof Coating.

Maximum Design Pressure: **-105 psf; (See General Limitation #7)**

Membrane Type:	SBS
Deck Type 1I:	Wood, Non-Insulated
Deck Description:	Min. 19/32" thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type E(9):	**A**nchor sheet is mechanically attached to roof deck. (Non-insulated systems)

All General and System Limitations shall apply.

Fire Barrier: (optional)	FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Roof Deck Protection or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Base Sheet:	Install one ply of GAFGLAS® #80 Ultima™ Base Sheet attached to deck with 12 ga., 1-1/4" galvanized ring shank nails through 32 ga. 1-5/8" diameter tin tabs as stated below:
Fastening Option #1:	8 in. o.c. in the min. 4 in. wide side laps and 8 in. o.c in three staggered rows in the field of the sheet. ***(Maximum Design Pressure -75 psf; See General Limitation #7)***
Fastening Option #2:	9 in. o.c. in the min. 4 in. wide side laps and 9 in. o.c in two staggered rows in the field of the sheet. ***(Maximum Design Pressure -45 psf; See General Limitation #9)***
Base Ply: (Optional)	GAFGLAS® FlexPly™ 6 adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. in accordance with manufacturer's instructions.
Membrane:	One or more plies of Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Plus Granule FR, Ruberoid® EnergyCap™ Mop Plus Granule FR, Ruberoid® Mop Granule FR, Ruberoid® 30 Granule FR, Ruberoid® 30 Plus Granule FR or Ruberoid® EnergyCap™ 30 Granule FR in adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Surfacing:	**Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions. All coatings must be listed within a current NOA.**
1.	Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2.	GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3.	Fiber Aluminum Roof Coating.
Maximum Design Pressure:	**See Fastening Options**

WOOD DECK SYSTEM LIMITATIONS:

1 A slip sheet is required with GAFGLAS® Ply 4 and GAFGLAS® FlexPly™ 6 when used as a mechanically fastened base or anchor sheet.
2. Minimum ¼" DensDeck® Roof Board or ½" Type X gypsum board is acceptable to be installed directly over the wood deck.

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 Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. 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