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

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

NOTICE OF ACCEPTANCE (NOA)

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 Concrete Decks.

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

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

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

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

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

This NOA renews NOA No. 24-0822.05 and consists of pages 1 through 42.
The submitted documentation was reviewed by Jorge L. Acebo.

10/31/24

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Modified Bitumen
Material: APP/SBS
Deck Type: Concrete
Maximum Design Pressure: -495 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 a 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 a 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.
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 EnergyCote™.
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.

Product	Dimensions	Test Specification	Product Description
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.
Ruberoid® EnergyCap™ HW Plus Granule FR	39.37" (1 meter) Wide	ASTM D6164	Fire retardant granule surfaced heat-welded SBS cap sheet reinforced with a polyester mat. Cap sheet is factory coated with EnergyCote™.
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.
Tri-Ply® APP Granule Cap Sheet	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 EnergyCote™.
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	39.37" (1 meter) Wide	ASTM D6164	Smooth surfaced mop applied SBS base or ply sheet reinforced with a polyester mat.

Product	Dimensions	Test Specification	Product Description
Ruberoid® Mop Smooth 1.5	39.37" (1 meter) Wide	ASTM D6164	Smooth surfaced mop applied SBS base or ply 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	39.37" (1 meter) Wide	ASTM D6164	Granule surfaced mop applied SBS cap 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.
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 EnergyCote™.
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 EnergyCote™.
Matrix™ 102 SBS Membrane Adhesive	3, 5 or 55 gallons	ASTM D3019	Fiber reinforced rubberized cold-applied adhesive for modified bitumen roof systems.
Matrix™ 307 Premium Asphalt Primer	3, 5, 55 gallons	ASTM D41	Asphalt concrete primer used to promote adhesion of all types of asphalt-based roofing materials.
Matrix™ 201 Premium SBS Flashing Cement	11 oz. Tubes or 5 gallons	ASTM D4586 ASTM D3409	Cold applied flashing cement in SBS-modified bitumen asphalt 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™ RA Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard™ RA Tapered Polyiso Insulation	Polyisocyanurate foam insulation	GAF
DensDeck® Roof Board	Gypsum board.	Georgia-Pacific Gypsum LLC
DensDeck® Prime® Roof Board	Gypsum board.	Georgia-Pacific Gypsum LLC
Structodek® High Density Fiber Board Roof Insulation	High Density Fiber Board	Blue Ridge Fiber Board, Inc.
SECUROCK® Gypsum-Fiber Roof Board	Gypsum board.	United States Gypsum Corp.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1	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
2	Drill-Tec™ 3” Steel Plate	Round Galvalume® steel stress plate with reinforcing ribs and recessed for use with Drill-Tec™ fasteners.	3" Round	GAF
3	Drill-Tec™ 2 in. Barbed Plate	Round galvanized steel stress plates for use with Drill-Tec™ fasteners.	2" Round	GAF
4	Drill-Tec™ AccuTrac® Flat Plate	A2-SS aluminized steel plate for use with Drill-Tec™ fasteners.	3" square 017" thick	GAF
5	Drill-Tec™ AccuTrac® Recessed Plate	Galvalume® steel plate with recess for use with Drill-Tec™ fasteners.	3" square 017" thick	GAF

EVIDENCE SUBMITTED:

Test Agency/Identifier	Name	Report	Date
FM Approvals	FMRC 4470	0D0A8.AM	07/09/97
	FMRC 4470	2B8A4.AM	07/02/97
	FMRC 4470	1D7A6.AM	05/06/02
	FMRC 4470	3006845	10/17/00
	FMRC 4470	3005175	05/23/00
	FMRC 4470	3005177	05/19/00
	FMRC 4470	3005640	11/09/00
	FMRC 4470	3007500	06/15/00
	FMRC 4470	3008178	12/27/00
	FMRC 4470	3010215	03/01/01
	FMRC 4470	3009788	03/28/01
	FMRC 4470	3011140	08/14/01
	FMRC 4470	3013788	01/10/03
	FMRC 4470	3017250	04/05/04
	FMRC 4470	3018578	09/14/04
	FMRC 4470	3028039	09/11/06
	FMRC 4470	3032811	12/11/08
	FMRC 4470	3042887	11/14/11
	FMRC 4470	3023458	07/18/06
	FMRC 4470	3036980	08/14/09
	FMRC 4470	3042905	01/10/12
	FMRC 4470	3028039	09/11/06
	FMRC 4470	3035864	06/03/09
	FMRC 4470	3045348	05/30/12
	FMRC 4470	3046328	09/13/12
	FMRC 4470	3047104	08/29/13
	FMRC 4470	797-10228-267	01/15/15
	FMRC 4470	RR203450	12/04/15
	FMRC 4470	FM Letter	04/11/13
	FMRC 4470	FM Letter	09/15/15
	FMRC 4470	RR213219	03/14/18
Trinity | ERD	ASTM D6862	C8500SC.11.07	11/30/07
	TAS 114	#01881.09.03-2	03/24/08
	TAS 114	#01881.11.03-2-R1	08/21/07
	TAS 114	#4483.04.97-1	06/06/97
	ASTM D6164	G40630.01.14-2B-R1	01/16/15
	ASTM D6163	G46160.02.15	02/12/15
	ASTM D6163	G46160.02.15-2D-1	02/09/16
	ASTM D6163	G46160.09.14-2A	09/09/14
	ASTM D6164	G46160.09.14-3B	09/09/14
	ASTM D6164	G46160.12.14-3E	12/29/14
	ASTM D6163	SC10680.05.16	05/10/16
	ASTM D6164	SC13105.03.17-R1	03/23/17

EVIDENCE SUBMITTED: (CONTINUED)

Test Agency/Identifier	Name	Report	Date
UL LLC	R10689	UL 790	06/21/24
	R1306	UL 790	08/12/24
PRI Construction Materials Technologies, LLC	ASTM D6164	PRI 376T0140	08/18/21
	ASTM D6163	PRI 376T0141	01/26/22
	ASTM D6222	PRI 376T0143	08/23/21
	ASTM D6222	PRI 376T0144	08/26/21
	ASTM D6164	PRI 376T0220	03/08/22
	ASTM D6164	PRI 376T0221	01/17/22
	ASTM D6222	PRI 376T0222	01/18/22
	ASTM D4897	PRI 376T0227	12/20/21
	ASTM D4897	PRI 376T0228	12/20/21
	ASTM D4601	PRI 376T0229	12/20/21
	ASTM D6222	PRI 376T0230	03/24/22
	ASTM D4601	PRI 376T0240	12/21/21
	ASTM D3909	PRI 376T0272	02/03/22
	ASTM D6222	PRI 376T0273	05/04/22
	ASTM D6222	PRI 376T0274	05/04/22
	ASTM D2178	PRI 376T0275	01/31/22
	ASTM D6163	PRI 376T0480	04/12/24
	ASTM D6164	PRI 376T0481	01/07/24
	ASTM D6164	PRI 376T0482	01/07/24
	ASTM D6164	PRI 376T0483	07/12/24
	ASTM D6164	PRI 376T0486	04/12/24
	ASTM D6163	PRI 824T0047	06/30/22
	ASTM D6164	PRI 824T0051	06/09/22
Atlantic & Caribbean Roof Consulting, LLC	06-041	TAS 114-D	11/10/06
	11-051	TAS 114-D	08/11/11
	12-009	TAS 114-D	04/20/12

APPROVED ASSEMBLIES:

Membrane Type: APP/SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(1): Insulation adhered with approved adhesive and membranes adhered to insulation.

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth® adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium Asphalt Primer.

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation Minimum. 1½" thick	**N/A**	**N/A**

Note: Base layer shall be adhered with OlyBond® at 1 gal./sq. full coverage, OlyBond 500® or OlyBond 500® Green in 3/4" to 1" wide ribbons spaced 12" o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

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

Note: Apply top layer of insulation with OlyBond® at 1 gal./sq. full coverage, OlyBond 500® or OlyBond 500® Green in 3/4" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as Base Layer only shall be used only as base layers with a second layer of approved Top Insulation Layer installed as the final membrane substrate.

Anchor Sheet: (Optional)	Two plies of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or a single ply of GAFGLAS® #80 Ultima™ Base Sheet, Ruberoid® 20 Smooth®, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® HW 25 Smooth™, Ruberoid® HW Smooth™ applied in hot asphalt full mop at 25 lbs./sq.
Base Sheet:	One or more plies of Ruberoid® HW 25 Smooth™ or Ruberoid® HW Smooth™ torch applied.
Ply Sheet: (Optional)	One or more plies of Ruberoid® HW 25 Smooth™ or Ruberoid® HW Smooth™ torch applied.

Membrane:	One or more plies Ruberoid® HW 25 Smooth™, Ruberoid® HW Smooth™, Ruberoid® HW Granule™, Ruberoid® HW Granule FR™, Ruberoid® HW Plus Granule™, Ruberoid® HW Plus Granule FR™ or Ruberoid® EnergyCap™ HW Plus Granule FR™, applied in accordance with manufacturer's instructions. Or One or more plies of Ruberoid® Torch Smooth, Tri-Ply® APP Smooth Membrane, Ruberoid® Torch Granule, Tri-Ply® APP Granule Cap Sheet, Ruberoid® Torch Plus Granule FR®, Ruberoid® EnergyCap™ Torch Granule FR applied in accordance with manufacturer's instructions.
Surfacing:	**Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions.**
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.
Maximum Design Pressure:	-300 psf. (See General Limitation #9)

Membrane Type: SBS, Cold Applied

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(2): Insulation adhered with approved adhesive and membranes adhered to insulation.

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth® adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium Asphalt Primer.

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation Minimum. 1½" thick	**N/A**	**N/A**

Note: Base layer shall be adhered with OlyBond® at 1 gal./sq. full coverage, OlyBond 500® or OlyBond 500® Green in 3/4" to 1" wide ribbons spaced 12" o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

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

Note: Apply top layer of insulation with OlyBond® at 1 gal./sq. full coverage or OlyBond 500® or OlyBond 500® Green in 3/4" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as Base Layer only shall be used only as base layers with a second layer of approved Top Insulation Layer installed as the final membrane substrate.

Base Sheet: (Optional) Two plies of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or GAFGLAS® #80 Ultima™ Base Sheet applied in hot asphalt full mop at 25 lbs./sq.

Ply Sheet: (Optional) GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet applied in Matrix™ 102 SBS Membrane Adhesive at 1.5 gal./sq.

Ply Sheet: One or more Ruberoid® 20 Smooth®, Ruberoid Mop Smooth, Ruberoid® Mop Smooth 1.5 or Ruberoid® Mop Plus Smooth applied In Matrix™ 102 SBS Membrane Adhesive at 1.5 gal./sq.

Membrane:	One or more plies Ruberoid® 30 Granule®, Ruberoid® 30 Granule FR®, Ruberoid® 30 Plus Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Plus Granule®, Ruberoid® Mop Plus Granule FR®, Ruberoid® EnergyCap™ Mop Plus Granule FR™, Ruberoid® Mop Granule FR® or Ruberoid® EnergyCap™ 30 Granule FR™ and applied in Matrix™ 102 SBS Membrane Adhesive at a 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.**
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.
Maximum Design Pressure:	-137.5 psf. (See General Limitation #9)

Membrane Type:	APP/SBS
Deck Type 3I:	Concrete Decks, Insulated
Deck Description:	2500 psi structural concrete or concrete plank
System Type A(3):	Adhered Insulated Systems

The following assembly is approved to a maximum design pressure per Insulation Maximum Design Pressure Table A. No substitutions shall be made:

Deck Type: Concrete, primed with Matrix™ 307 Premium Asphalt Primer.

All General and System Limitations shall apply.

Anchor Sheet: (Optional) Install one or more plies 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, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth or Ruberoid® 20 Smooth® mopped directly to the substrate. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Insulations: **See Insulation Maximum Design Pressure Table A below. Design Pressure is dependent on Insulation assembly # used in this system.**

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® 20 Smooth®, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5 or Ruberoid® Mop Plus Smooth mopped directly to the insulated substrate. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One, two or three plies of Ruberoid® 20 Smooth®, GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet or 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.

Membrane: One or more plies of Ruberoid® Torch Smooth, Tri-Ply® APP Smooth Membrane, Ruberoid® Torch Granule, Tri-Ply® APP Granule Cap Sheet, Ruberoid® Torch Plus Granule FR®, Ruberoid® EnergyCap™ Torch Granule FR applied in accordance with manufacturer's instructions.
Or
Ruberoid® 20 Smooth®, Ruberoid® 30 Granule®, Ruberoid® 30 Granule FR®, Ruberoid® 30 Plus Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Plus Granule®, Ruberoid® Mop Plus Granule FR®, Ruberoid® EnergyCap™ Mop Plus Granule FR™, Ruberoid® Mop Granule FR® or Ruberoid® EnergyCap™ 30 Granule FR™ applied in accordance with manufacturer's instructions.
Or
Ruberoid® HW 25 Smooth™, Ruberoid® HW Smooth™, Ruberoid® HW Granule™, Ruberoid® HW Granule FR™, Ruberoid® HW Plus Granule™, Ruberoid® HW Plus Granule FR™ or Ruberoid® EnergyCap™ HW Plus Granule FR™ 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.**

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.

Insulation Maximum Design Pressure Table A for Assembly A(3)

#	Insulation Assemblies
1.	Min. 1½" EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ Polyiso Insulation laid with the polyisocyanurate side down and bonded in a full mopping of an approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. **Maximum Design Pressure –270 psf. (See General Limitation #9)**
2.	***Base Layer:*** Min. 1" EnergyGuard™ RA Polyiso Insulation mopped in asphalt at the rate of 20-40 lbs./sq. ***Top Layer*****:** Min. ½" Structodek® High Density Fiber Board Roof Insulation 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 –307.5 psf. (See General Limitation #9)**
3.	***Base Layer:*** Min. 1" EnergyGuard™ RA Polyiso Insulation mopped in asphalt at the rate of 20-40 lbs./sq. ***Top Layer*****:** Min. ½" Structodek® High Density Fiber Board Roof Insulation 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 –237.5 psf. (See General Limitation #9)**
4.	Min. ½" Structodek® High Density Fiber Board Roof Insulation 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 –140 psf. (See General Limitation #9**)
5.	***Base Layer****:* Min. 1¼" EnergyGuard™ Polyiso Insulation or EnergyGuard™ RA Polyiso Insulation, adhered to the concrete deck in a full mopping of approved asphalt applied within the EVT range at a rate of 20-40 lbs./sq. ***Top Layer****:* Min. ½" Structodek® High Density Fiber Board Roof Insulation adhered to the base insulation layer in a full mopping of approved asphalt applied within the EVT range at a rate of 20-40 lbs./sq. **Maximum Design Pressure –162 psf. (See General Limitation #9)**

Membrane Type:	APP/SBS
Deck Type 3I:	Concrete Decks, Insulated
Deck Description:	2500 psi structural concrete or concrete plank
System type A(4):	Adhered insulated systems

The following assembly is approved to a maximum design pressure per Insulation Maximum Design Pressure Table B. No substitutions shall be made:

Deck Type: Concrete, primed with Matrix™ 307 Premium Asphalt Primer.

All General and System Limitations shall apply.

Anchor Sheet: (Optional) Install one or more plies 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 or Ruberoid® 20 Smooth® mopped directly to deck primed with Matrix™ 307 Premium Asphalt Primer. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Insulations: **See Insulation Maximum Design Pressure Table B below. Design Pressure is dependent on Insulation assembly # used in this system.**

Base Sheet: Install one ply of GAFGLAS® Stratavent® Perforated Venting Base Sheet, lose laid dry

Ply Sheet: (Optional) **(Note, required if membrane is APP/SBS Heat-Weld™ or Mineral Surface Cap Sheets)** One or more plies of Ruberoid® 20 Smooth®, GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet or 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.

Membrane: One or more plies of Ruberoid® Torch Smooth, Tri-Ply® APP Smooth Membrane, Ruberoid® Torch Granule, Tri-Ply® APP Granule Cap Sheet®, Ruberoid® Torch Plus Granule FR®, Ruberoid® EnergyCap™ Torch Granule FR applied in accordance with manufacturer's instructions.
Or
Ruberoid® 20 Smooth®, Ruberoid® 30 Granule®, Ruberoid® 30 Granule FR®, Ruberoid® 30 Plus Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Plus Granule®, Ruberoid® Mop Plus Granule FR®, Ruberoid® EnergyCap™ Mop Plus Granule FR™, Ruberoid® Mop Granule FR® or Ruberoid® EnergyCap™ 30 Granule FR™ applied in accordance with manufacturer's instructions.
Or
Ruberoid® HW 25 Smooth™, Ruberoid® HW Smooth™, Ruberoid® HW Granule™, Ruberoid® HW Granule FR™, Ruberoid® HW Plus Granule™, Ruberoid® HW Plus Granule FR™ or Ruberoid® EnergyCap™ HW Plus Granule FR™ applied in accordance with manufacturer's instructions.
Or
(Only for use over Ruberoid® 20 Smooth® Ply Sheet) GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet®, 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.**

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.

Insulation Maximum Design Pressure Table B for Assembly A(4)

#	Insulation Assemblies
1.	Min. 1" EnergyGuard™ Polyiso Insulation or EnergyGuard™ RA Polyiso Insulation mopped in asphalt at the rate of 20-40 lbs./sq. **Maximum Design Pressure –150 psf. (See General Limitation #9)**
2.	***(Optional)Base Layer****:* Min. 1" EnergyGuard™ Polyiso Insulation or EnergyGuard™ RA Polyiso Insulation mopped in asphalt at the rate of 20-40 lbs./sq. ***Top Layer***: Min. ¼" DensDeck® or SECUROCK® Gypsum-Fiber Roof Board mopped in asphalt at the rate of 20-40 lbs./sq. **Maximum Design Pressure –240 psf. (See General Limitation #9)**
3.	***(Optional) Base Layer****:* Min. 1" EnergyGuard™ Polyiso Insulation or EnergyGuard™ RA Polyiso Insulation, mopped in asphalt at the rate of 20-40 lbs./sq. ***Top Layer****:* Min. ½" Structodek® High Density Fiber Board Roof Insulation adhered to the base insulation layer or concrete deck primed with Matrix™ 307 Premium Asphalt Primer in a full mopping of approved asphalt applied within the EVT range at a rate of 20-40 lbs./sq. **Maximum Design Pressure –90 psf. (See General Limitation #9)**

Membrane Type:	APP/SBS
Deck Type 3I:	Concrete Decks, Insulated
Deck Description:	2500 psi structural concrete or concrete plank
System Type A(5):	Insulation adhered with approved adhesive and membranes adhered to insulation.
Vapor Retarder:	(Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth® adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium Asphalt Primer.

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation Minimum. 2" thick	**N/A**	**N/A**

Note: Base layer shall be adhered with hot asphalt applied at 20-25 lbs./sq. or OlyBond 500® or OlyBond 500® Green in 3/4" to 1" wide ribbons spaced 12" o.c.

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

Note: Apply top layer of insulation with OlyBond® at 1 gal./sq. full coverage, OlyBond 500® or OlyBond 500® Green 3/4" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet:	GAFGLAS® Stratavent® Perforated Venting Base Sheet loose laid. Or One or more plies of Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5 or Ruberoid® Mop Plus Smooth adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Ply Sheet: (Optional)	**(Note: required if GAFGLAS® Stratavent Perforated Venting Base Sheet is used)** One or more plies of GAFGLAS® #80 Ultima™ Base Sheets, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet 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® 30 Granule®, Ruberoid® 30 Granule FR®, Ruberoid® 30 Plus Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet®, Intec Flex PRF, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Plus Granule®, Ruberoid® Mop Plus Granule FR®, Ruberoid® EnergyCap™ Mop Plus Granule FR™, Ruberoid® Mop Granule FR®, 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. Or **(Only for use over Ruberoid® 20 Smooth Ply Sheet)** GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet®, 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.**
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.
Maximum Design Pressure:	-225 psf. (See General Limitation #9)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank primed

System Type A(6): Membrane fully adhered with approved asphalt.

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth® adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium Asphalt Primer.

All General and System limitations apply.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation Minimum ½" thick	**N/A**	**N/A**

Note: One or more layers of insulation (maximum of 12 inches) shall be adhered with hot asphalt applied at 20-25 lbs. to deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium if optional vapor retarder is not present.

Base Sheet: One ply of GAFGLAS® Stratavent® Perforated Venting Base Sheet loose laid dry with 2" side laps.

Ply Sheet: One ply of Ruberoid® 20 Smooth®, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Smooth or Ruberoid® Mop Plus Smooth adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
OR
Two or three plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet or 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.

Membrane: One or more plies of Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet®, Ruberoid® Mop Granule FR®, Ruberoid® Mop Plus Granule®, Intec Flex PRF or 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.
Or
(Only for use over Ruberoid® 20 Smooth, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5 or Ruberoid® Mop Plus Smooth Ply Sheet) GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet®, 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.**
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.
Maximum Design Pressure:	-150 psf. (See General Limitation #9)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type B: Base sheet adhered with approved asphalt; base insulation layer mechanically fastened; optional top layer adhered with approved asphalt.

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth® adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium Asphalt Primer.

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation		
Minimum. 2" thick	**1, 4 or 5**	**1:1.45**

Note: See Roofing Application Standard RAS 117 for fastening details. 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/ft^2**
Any of the insulations listed for Base Layer, above.	**N/A**	**N/A**

Note: Apply top layer of insulation in a full mopping of any approved mopping asphalt within the EVT range and at a rate of 20-40 lbs./100 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 Insulation Layer installed as the final membrane substrate.

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 or GAFGLAS® FlexPly™ 6 or Ruberoid® 20 Smooth® adhere directly to the insulated substrate with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Or
GAFGLAS® Stratavent® Perforated Venting Base Sheet loose laid dry.

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

Membrane:	One or more plies ply of Ruberoid® 20 Smooth®, Ruberoid® 30 Granule®, Ruberoid® 30 Granule FR®, Ruberoid® 30 Plus Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet®, Intec Flex PRF, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Plus Granule®, Ruberoid® Mop Plus Granule FR®, Ruberoid® EnergyCap™ Mop Plus Granule FR™, Ruberoid® Mop Granule FR® or Ruberoid® EnergyCap™ 30 Granule FR™ adhere 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.**
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.
Maximum Design Pressure:	-67.5 psf. (See General Limitation #7)

Membrane Type: APP/SBS Heat-Weld

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

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

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth® adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium Asphalt Primer.

All General and System Limitations shall apply.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation		
Minimum 1½" 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**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board		
Minimum ¼" thick	**1, 4**	**1:1**

Base Sheet: Install one ply of GAFGLAS® Stratavent® Perforated Venting Base Sheet loose laid dry.

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

Membrane: One or more plies of Ruberoid® Torch Smooth, Tri-Ply® APP Smooth Membrane, Ruberoid® Torch Granule, Tri-Ply® APP Granule Cap Sheet, Ruberoid® Torch Plus Granule FR®, Ruberoid® EnergyCap™ Torch Granule FR applied in accordance with manufacturer's instructions.

Or
One or more plies of Ruberoid® HW 25 Smooth®, Ruberoid® HW Smooth™, Ruberoid® HW Granule™, Ruberoid® HW Granule FR™, Ruberoid® HW Plus Granule™, Ruberoid® HW Plus Granule FR™ or Ruberoid® EnergyCap™ HW Plus Granule FR™ applied in accordance with manufacturer's instructions.

Surfacing:	**Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions.**
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.
Maximum Design Pressure:	-82.5 psf. (See General Limitation #7)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

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

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth® adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium Asphalt Primer.

All General and System Limitations shall apply.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation Minimum 1½" 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**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board Minimum ¼" thick	**1, 4**	**1:1**

Base Sheet: Install one ply of GAFGLAS® Stratavent® Perforated Venting Base Sheet loose laid dry.

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

Membrane: One or more plies ply of Ruberoid® 20 Smooth®, Ruberoid® 30 Granule®, Ruberoid® 30 Granule FR®, Ruberoid® 30 Plus Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Plus Granule®, Ruberoid® Mop Plus Granule FR®, Ruberoid® EnergyCap™ Mop Plus Granule FR™, Ruberoid® Mop Granule FR® or Ruberoid® EnergyCap™ 30 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 the manufacturer's application instructions.**
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.
Maximum Design Pressure:	-82.5 psf. (See General Limitation #7)

Membrane Type: APP

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type C(3): All layers of insulation are mechanically attached roof deck. Membrane is subsequently fully or partially adhered to insulation.

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth® adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium Asphalt Primer.

All General and System limitations apply.

One or more layers of each of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation Minimum 1½″ thick	**N/A**	**N/A**

Note: Both layers shall be simultaneously attached; see top layer below for fasteners and density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
SECUROCK® Gypsum-Fiber Roof Board Minimum ½″ thick	**1 & 6**	**1:1 ft²**

Note: All layers of insulation and optional vapor retarder (when present) shall be mechanically attached using the fastener density listed above. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One or more plies of Ruberoid® HW 25 Smooth™ or Ruberoid® HW Smooth™ torch adhered with 3 in. wide side laps in accordance to manufacturer's instructions.

Membrane: Ruberoid® Torch Smooth, Tri-Ply® APP Smooth Membrane®, Ruberoid® Torch Granule, Tri-Ply® APP Granule Cap Sheet®, Ruberoid® Torch Plus Granule FR®, or Ruberoid® EnergyCap™ Torch Granule FR, torch adhered with 3 in. wide side laps in accordance to manufacturer's instructions.

Surfacing:	**Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions.**
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.
Maximum Design Pressure:	-120 psf. (See General Limitation # 7)

Membrane Type: APP/SBS Heat-Weld

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

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

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth® adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium Asphalt Primer.

All General and System Limitations shall apply.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation Minimum 1.3" thick	**N/A**	**N/A**
Structodek® High Density Fiber Board Roof Insulation Minimum 1" thick	**N/A**	**N/A**

Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Please refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. All insulation shall be adhered to the deck in two ¾" beads of Olybond®, Olybond 500® or Olybond 500® Green adhesive space at 12" o.c.

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, GAFGLAS® Stratavent® ™Nailable Venting Base Sheet or Ruberoid® 20 Smooth®. Fastened to the deck through the insulation with Drill-Tec™ #14 Fastener, Drill-Tec™ 3" Steel Plate or Drill-Tec™ AccuTrac® Flat Plate in a 2" side laps 12" on center. Three rows are equally spaced approximately 9" o.c. in the field of the sheet spaced 12 o.c. along the length of the sheet.

Ply Sheet: (Optional) **(Note: required if used with Ruberoid® 20 Smooth® or GAFGLAS® Stratavent Perforated Venting Base Sheet)** One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6 or GAFGLAS® #80 Ultima™ Base Sheet adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane:	One or more plies of Ruberoid® Torch Smooth, Tri-Ply® APP Smooth Membrane, Ruberoid® Torch Granule, Tri-Ply® APP Granule Cap Sheet, Ruberoid® Torch Plus Granule FR®, Ruberoid® EnergyCap™ Torch Granule FR applied in accordance to manufacturer's instructions. Or One or more plies of Ruberoid® HW 25 Smooth™, Ruberoid® HW Smooth™, Ruberoid® HW Granule™, Ruberoid® HW Granule FR™, Ruberoid® HW Plus Granule™, Ruberoid® HW Plus Granule FR™ or Ruberoid® EnergyCap™ HW Plus Granule FR™ applied in accordance with manufacturer's instructions.
Surfacing:	**Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions.**
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.
Maximum Design Pressure:	-45 psf. (See General Limitation #9)

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

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

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth® adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium Asphalt Primer.

All General and System Limitations shall apply.

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 Roof Insulation Minimum 1" thick	**N/A**	**N/A**

Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Please refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. All insulation shall be adhered to the deck in two ¾" beads of Olybond®, Olybond 500® or Olybond 500® Green adhesive space at 12" o.c.

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, GAFGLAS® Stratavent® ™Nailable Venting Base Sheet or Ruberoid® 20 Smooth®. Fastened to the deck through the insulation with Drill-Tec™ #14 Fastener and Drill-Tec™ 3" Steel Plate, Drill-Tec™ AccuTrac® Flat Plate in a 2" side laps 12" on center. Three rows are equally spaced approximately 9" o.c. in the field of the sheet spaced 12 o.c. along the length of the sheet.

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

Membrane: One or more plies ply of Ruberoid® 20 Smooth®, Ruberoid® 30 Granule®, Ruberoid® 30 Granule FR®, Ruberoid® 30 Plus Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Plus Granule®, Ruberoid® Mop Plus Granule FR®, Ruberoid® EnergyCap™ Mop Plus Granule FR™, Ruberoid® Mop Granule FR® or Ruberoid® EnergyCap™ 30 Granule FR™ adhere 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.**
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.
Maximum Design Pressure:	-45 psf. (See General Limitation #9)

Membrane Type: APP/SBS Heat-Weld

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type D(3): All insulations are loose laid with preliminary attachment to roof deck. The base sheet is subsequently mechanically fastened through insulation to the roof deck.

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth® adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium Asphalt Primer.

All General and System Limitations shall apply.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation Minimum 1.3" thick	**N/A**	**N/A**
Structodek® High Density Fiber Board Roof Insulation Minimum 1" thick	**N/A**	**N/A**

Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Please refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. All insulation shall be adhered to the deck in two ¾" beads of Olybond®, Olybond 500® or Olybond 500® Green adhesive space at 12" o.c.

Base Sheet: Install one ply of Ruberoid® HW Smooth®. Fastened to the deck through the insulation with Drill-Tec™ #14 Fastener and Drill-Tec™ 2 in. Barbed Steel Plate in a 4" side laps 6" on center. Lap is torch sealed according to manufacturer's instructions.

Ply Sheet: (Optional) One or more plies of Ruberoid® HW Smooth™ torch applied or Ruberoid® Mop Smooth or Ruberoid® Mop Smooth 1.5 adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One or more plies of Ruberoid® HW 25 Smooth®, Ruberoid® HW Smooth™, Ruberoid® HW Granule™, Ruberoid® HW Granule FR™, Ruberoid® HW Plus Granule™, Ruberoid® HW Plus Granule FR™ or Ruberoid® EnergyCap™ HW Plus Granule FR™ applied in accordance with manufacturer's instructions.

Surfacing:	**Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions.**
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.
Maximum Design Pressure:	-67.5 psf. (See General Limitation #7)

Membrane Type: SBS Heat-Weld

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank.

System Type D(4): All insulations are loose laid with preliminary attachment to roof deck. The base sheet is subsequently mechanically fastened through insulation to the roof deck.

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth® adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium Asphalt Primer.

All General and System limitations apply.

One or more layers of the following insulations.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation		
Minimum 1½″ thick	**N/A**	**N/A**

Note: Insulation shall have preliminary attachment, prior to the installation of the base sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation, optional vapor barrier (when present) and base sheet shall be simultaneously fastened. See base sheet below for fasteners and density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Ply: One of the following Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth fastened to the deck with Drill-Tec™AccuTrac® Flat Plates and Drill-Tec™ 3" Standard Steel Plates with Drill-Tec™ #14 Fasteners spaced 6.0 in o.c. through the minimum 3.25 in wide side laps.

Membrane: One or more plies of Ruberoid® HW Smooth™, Ruberoid® HW Granule™, Ruberoid® HW Granule FR™, Ruberoid® HW Plus Granule™, Ruberoid® HW Plus Granule FR™ or Ruberoid® EnergyCap™ HW Plus Granule FR™ torched adhered with minimum 3 in wide laps in accordance to manufacturer's instructions.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions.**

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.

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

Membrane Type: APP

Deck Type 3: Concrete Decks, Non-Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(1): Base sheet adhered with approved asphalt.

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth® adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium Asphalt Primer.

All General and System Limitations shall apply.

Base Sheet: (Optional)	Install one ply of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, Ruberoid® 20 Smooth®, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or GAFGLAS® #80 Ultima™ Base Sheet directly to primed deck. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Ply Sheet: (Optional)	**(Note: required with Ruberoid® 20 Smooth® base sheet)** One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6 or GAFGLAS® #80 Ultima™ Base Sheet. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Membrane:	One or more plies of Ruberoid® Torch Smooth, Tri-Ply® APP Smooth Membrane, Ruberoid® Torch Granule, Tri-Ply® APP Granule Cap Sheet®, Ruberoid® Torch Plus Granule FR®, Ruberoid® EnergyCap™ Torch Granule FR applied in accordance with manufacturer's instructions.
Surfacing:	**Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions.**
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.
Maximum Design Pressure:	-236 psf. (See General Limitation #9)

Membrane Type: APP

Deck Type 3: Concrete Decks, Non-Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(2): Base sheet adhered with approved asphalt.

All General and System Limitations shall apply.

Base Sheet:	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 or Ruberoid® 20 Smooth® to deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium Asphalt Primer. Adhere base sheet with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Ply Sheet: (Optional)	**(Note: required if used with Ruberoid® 20 Smooth®)** One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet or GAFGLAS® FlexPly™ 6 adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Membrane:	One or more plies of Ruberoid® Torch Smooth, Tri-Ply® APP Smooth Membrane, Ruberoid® Torch Granule, Tri-Ply® APP Granule Cap Sheet, Ruberoid® Torch Plus Granule FR®, Ruberoid® EnergyCap™ Torch Granule FR applied in accordance with manufacturer's instructions.
Surfacing:	**Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions.**
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.
Maximum Design Pressure:	-457.5 psf. (See General Limitation #9)

Membrane Type: SBS

Deck Type 3: Concrete Decks, Non-Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(3): Base sheet adhered with approved asphalt.

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth® adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium Asphalt Primer.

All General and System Limitations shall apply.

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 or Ruberoid® 20 Smooth® directly to decked primed ASTM D-41 Asphalt Primer or Matrix™ 307 Premium. Base sheet is adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

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

Membrane: One or more plies ply of Ruberoid® 20 Smooth®, Ruberoid® 30 Granule®, Ruberoid® 30 Granule FR®, Ruberoid® 30 Plus Granule FR Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Plus Granule®, Ruberoid® Mop Plus Granule FR®, Ruberoid® EnergyCap™ Mop Plus Granule FR™, Ruberoid® Mop Granule FR® or Ruberoid® EnergyCap™ 30 Granule FR™ adhere 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.**

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.

Maximum Design Pressure: -442.5 psf. (See General Limitation #9)

Membrane Type: SBS

Deck Type 3: Concrete Decks, Non-Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(4): Base sheet adhered with approved asphalt.

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth® adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium Asphalt Primer.

All General and System Limitations shall apply.

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 or Ruberoid® 20 Smooth® directly to deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium. Base sheet is adhered with Matrix™ 102 SBS Membrane Adhesive at an application rate of 1-2 gal. /sq.

Membrane: One or more plies of Ruberoid® 30 Granule®, Ruberoid® 30 Granule FR®, Ruberoid® 30 Plus Granule FR, Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Plus Granule®, Ruberoid® Mop Plus Granule FR®, Ruberoid® EnergyCap™ Mop Plus Granule FR™, Ruberoid® Mop Granule FR® or Ruberoid® EnergyCap™ 30 Granule FR™ adhered with 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.**

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.

Maximum Design Pressure: -307.5 psf. (See General Limitation #9)

Membrane Type: SBS

Deck Type 3: Concrete Decks, Non-Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(5): Membrane fully adhered with approved asphalt.

All General and System Limitations shall apply.

Base Sheet:	GAFGLAS® Stratavent® Perforated Venting Base Sheet, loose laid dry over deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium Asphalt Primer.
Ply Sheet: (Optional)	One or more plies of Ruberoid® 20 Smooth®, GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet or 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.
Membrane:	One or more plies of Ruberoid® 20 Smooth®, Ruberoid® 30 Granule®, Ruberoid® 30 Granule FR®, Ruberoid® 30 Plus Granule FR, Tri-Ply® SBS Granule Cap Sheet®, Intec Flex PRF, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Plus Granule®, Ruberoid® Mop Plus Granule FR®, Ruberoid® EnergyCap™ Mop Plus Granule FR™, Ruberoid® Mop 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.**
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.
Maximum Design Pressure:	-195 psf. (See General Limitation #9)

Membrane Type: APP/SBS Heat-Weld

Deck Type 3: Concrete Decks, Non-Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(6): Membrane fully adhered with approved asphalt.

All General and System Limitations shall apply.

Base Sheet: GAFGLAS® Stratavent® Perforated Venting Base Sheet, loose laid dry over deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium Asphalt Primer.

Ply Sheet: One or more plies of Ruberoid® 20 Smooth®, GAFGLAS® #80 Ultima™ Base Sheets, GAFGLAS® #75 Base Sheet or Tri-Ply® #75 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® Torch Smooth, Tri-Ply® APP Smooth Membrane, Ruberoid® Torch Granule, Tri-Ply® APP Granule Cap Sheet, Ruberoid® Torch Plus Granule FR®, Ruberoid® EnergyCap™ Torch Granule FR applied in accordance with manufacturer's instructions.
OR
Ruberoid® HW 25 Smooth™, Ruberoid® HW Smooth™, Ruberoid® HW Granule™, Ruberoid® HW Granule FR™, Ruberoid® HW Plus Granule™, Ruberoid® HW Plus Granule FR™ or Ruberoid® EnergyCap™ HW Plus Granule FR™ applied in accordance with manufacturer's instructions.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions.**

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.

Maximum Design Pressure: -195 psf. (See General Limitation #9)

Membrane Type: APP/SBS Heat-Weld

Deck Type 3: Concrete Decks, Non-Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(7): Membrane fully adhered with approved asphalt.

All General and System Limitations shall apply.

Base Sheet:	One ply of Ruberoid® HW Smooth™ torched adhered to deck primed with ASTM D-41 Asphalt Primer or Matrix™ 307 Premium Asphalt Primer.
Ply Sheet: (Optional)	One or more plies of Ruberoid® HW Smooth™ or Ruberoid® HW 25 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 ply of Ruberoid® HW 25 Smooth™, Ruberoid® HW Smooth™, Ruberoid® HW Granule™, Ruberoid® HW Granule FR™, Ruberoid® HW Plus Granule™, Ruberoid® HW Plus Granule FR™ or Ruberoid® EnergyCap™ HW Plus Granule FR™ applied in accordance with manufacturer's instructions.
Surfacing:	**Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to the manufacturer's application instructions.**
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.
Maximum Design Pressure:	-495 psf. (See General Limitation #9)

CONCRETE DECK SYSTEM LIMITATIONS:

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

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered 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 and/or RAS 137. 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