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 Recover 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. 14-0616.09 and consists of pages 1 through 28.
The submitted documentation was reviewed by Jorge L. Acebo.

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Modified Bitumen
Material: APP/SBS
Deck Type: Recover
Maximum Design Pressure: See Specific Deck Type

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
GAFGLAS® #75 Base Sheet	39.37" (1 meter) Wide	ASTM D4601	Type II asphalt impregnated and coated glass mat base sheet.
GAFGLAS® #80 Ultima™ Base Sheet	39.37" (1 meter) Wide	ASTM D4601	Type II asphalt impregnated and coated, fiberglass base sheet.
GAFGLAS® FlexPly™ 6	39.37" (1 meter) Wide	ASTM D2178	Type VI asphalt impregnated glass felt with asphalt coating.
GAFGLAS® Ply 4®	39.37" (1 meter) Wide	ASTM D2178	Type IV asphalt impregnated glass felt with asphalt coating.
GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base Sheet	39.37" (1 meter) Wide	ASTM D4897	Fiberglass base sheet coated on both sides with asphalt. Surfaced on the bottom side with mineral granules embedded in asphaltic coating.
GAFGLAS® Stratavent® Eliminator™ Perforated Nailable Venting Base Sheet	39.37" (1 meter) Wide	ASTM D4897	A nailable, fiberglass base sheet coated on both sides with asphalt. Surfaced on the bottom side with mineral granules embedded in asphaltic coating.
Ruberoid Mop Smooth	39.37" (1 meter) Wide	ASTM D6164	Non-woven polyester mat coated with polymer-modified asphalt and smooth surfaced.
Ruberoid® Mop Granule	39.37" (1 meter) Wide	ASTM D6164	Non-woven polyester mat coated with polymer-modified asphalt and surfaced with mineral granules.
Ruberoid® Torch Smooth	39.37" (1 meter) Wide	ASTM D6222	Non-woven polyester mat coated with APP modified asphalt and smooth surfaced.
Ruberoid® Torch Granule	39.37" (1 meter) Wide	ASTM D6222	Non-woven polyester mat coated with APP modified asphalt and surfaced with mineral granules
Ruberoid® Torch FR	39.37" (1 meter) Wide	ASTM D6222	Non-woven polyester mat coated with fire retardant polymer-modified membrane, granule surface.
Ruberoid® Mop Plus	39.37" (1 meter) Wide	ASTM D6164	Non-woven polyester mat coated with polymer-modified asphalt and surfaced with mineral granules.

Product	Dimensions	Test Specification	Product Description
Ruberoid® Mop FR	39.37" (1 meter) Wide	ASTM D6164	Non-woven polyester mat coated with fire-retardant, polymer-modified asphalt surfaced with mineral granules.
Ruberoid® 20	39.37" (1 meter) Wide	ASTM D6163	SBS modified asphalt base sheet reinforce with a glass fiber mat.
Ruberoid® 30	39.37" (1 meter) Wide	ASTM D6163	Non-woven fiberglass mat coated with polymer-modified asphalt and surfaced with mineral granules.
Ruberoid® 30 FR	39.37" (1 meter) Wide	ASTM D6163	Non-woven fiberglass mat coated with fire retardant, polymer-modified asphalt and surfaced with mineral granules.
Ruberoid® Mop 170 FR	39.37" (1 meter) Wide	ASTM D6164	Non-woven polyester mat coated with fire retardant polymer-modified asphalt surfaced with mineral granules.
Matrix™ 303 Premium Fibered Aluminum Roof Coating	5 or 55 gallons	ASTM D2824 Type III	Heavy duty, fibered aluminum asphalt coating that provides reflectivity and protection against moisture and corrosion.
Matrix™ 304 Non-Fibered Aluminum Roof Coating	5 or 55 gallons	ASTM D2824 Type I	Non-fibered aluminum asphalt coating that provides reflectivity and protection against moisture and corrosion.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
EnergyGuard™ Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard™ RA Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard™ RN Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard™ RA Composite Polyiso Insulation	Polyisocyanurate foam insulation with high density fiberboard or Permalite perlite insulation.	GAF.
EnergyGuard™ Perlite Roof Insulation	Perlite insulation board.	GAF
EnergyGuard™ Perlite Recover Board	Perlite recover board	GAF
DensDeck® Roof Board	Gypsum roof board.	Georgia-Pacific Gypsum LLC

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Drill-Tec™ #12 Fastener	Insulation fastener and base ply fastener.	various	GAF
2.	Drill-Tec™ #14 Fastener	Insulation fastener and base ply fastener.	various	GAF
3.	Drill-Tec™ XHD Fasteners	Carbon steel extra heavy duty fastener used in steel decks.	various	GAF
4.	Drill-Tec™ ASAP 3S	Drill-Tec™ #12 Fastener with Drill-Tec™ 3" Standard Steel Plate.	various	GAF
5.	Drill-Tec™ Base Sheet Fastener	Pre-assembled base sheet fastening assembly.	1.2 and 1.7 length	GAF
6.	Drill-Tec™ LD Fastener	Insulation fastener for CWF and Gypsum decks.	various	GAF
7.	Drill-Tec™ 3" Steel Plates	Round galvalume stress plate used with Drill-Tec™ fasteners.	3"	GAF
8.	Drill-Tec™ 3" Standard Steel Plate	Round galvalume plated steel stress plate with reinforced ribs for use with Drill-Tec™ fasteners.	3"	GAF

EVIDENCE SUBMITTED:

Test Agency/Identifier	Name	Report	Date
Factory Mutual Research Corp.	FMRC 4470	J.I. 0D0A8.AM	07/09/97
	FMRC 4470	J.I. 2B8A4.AM	07/02/97
	FMRC 4470	J.I. 3005640	11/09/00
	FMRC 4470	J.I. 3006845	10/17/00
	FMRC 4470	J.I. 3005175	05/23/00
	FMRC 4470	J.I. 3005177	05/19/00
	FMRC 4470	J.I. 3007500	06/15/00
	FMRC 4470	J.I. 3008178	12/27/00
	FMRC 4470	3017250	05/05/04
	FMRC 4470	J.I. 1B9A8.AM	09/04/97
	FMRC 4470	J.I. 3D4Q2.AM	04/30/97
	FMRC 4470	3029832	05/11/07
Independent Roof Testing & Consulting of South Florida	TAS 114-J	No.00001	03/30/00
	TAS 114-J	No.00002	03/30/00
	TAS 114	04-009	01/26/04
Exterior Research & Design, LLC	TAS 114	#4483.04.97-1	06/06/97
	TAS 114	4674.11.01-1	11/21/01
Trinity | ERD	ASTM D 3909	G6850.08.07-1	08/13/07
	ASTM D6163	#G6850.08.08	08/29/08
	ASTM D6862	C8500SC.11.07	11/30/07
	ASTM D4601	G34140.04.11-4	04/25/11
	ASTM D4879	G34140.04.11-5	04/25/11
	ASTM D3909	G30250.02.10-3-R1	02/15/11
	ASTM D6164	G6850.08.08-R1	04/14/11
	ASTM D6222	G30250.02.10-2	02/12/10
	ASTM D6222	G6850.10.08	10/06/08
	ASTM D6222	G6850.11.08	11/05/08
	ASTM D6163	G34140.04.11-2	04/29/11
	ASTM D6164	G31360.03.10	04/08/10
	ASTM D1876	G32520.06.11	06/28/11
	ASTM D6164	G33470.01.11	01/19/11
	ASTM D3909	G43610.01.14	01/22/14
	ASTM D6222	G43190.11.13-1	11/15/13
	ASTM D6163	G46160.02.15-2D	02/03/15
	ASTM D6163	G46160.09.14-2A	09/09/14
	ASTM D6164	G46160.09.14-3A	09/09/14
	ASTM D6164	G46160.09.14-3C	09/09/14
	ASTM D6164	G46160.12.14-3E	12/29/14
	ASTM D6163	G46160.03.15	03/11/15
	ASTM D3909	SC6870.08.14-R1	09/04/14
Underwriters Laboratories, Inc.	UL 790	R1306	07/22/13
PRI Construction Materials Technologies, LLC.	ASTM D6083	GAF-084-02-01	05/07/06
	TAS 139	GAF-122-02-01	05/07/06
	ASTM D6083	GAF-276-02-01Rev	01/04/11

EVIDENCE SUBMITTED: (CONTINUED)

Test Agency/Identifier	Name	Report	Date
PRI Construction Materials Technologies, LLC.	ASTM D2178	GAF-314-02-01	08/23/11
	ASTM D2178	GAF-315-02-01	08/23/11
	ASTM C1289	GAF-369-02-01	10/22/12
	ASTM C1289	GAF-417-02-01	05/28/13
	TAS 114-J	GAF-436-02-05	03/05/14
	ASTM C1289	GAF-464-02-01	02/06/14
	ASTM D6083	GAF-499-02-01	03/12/14
	ASTM D6083	GAF-500-02-01	03/12/14
Atlantic & Caribbean Roof Consulting, LLC	TAS 114-J	06-044	11/16/06
	TAS 114-J	06-048	12/21/06
	TAS 114-J	06-049	12/22/06

DECK STRESS ANALYSIS CALCULATIONS/REPORTS

Engineer/Agency	Identifier	Assemblies:	Date
Duc T. Nguyen, P.E.	GAF-436-02-05 Addendum Letter	C(3)	10/05/15

APPROVED ASSEMBLIES:

Membrane Type: APP

Deck Type 7I: Recover, Insulated

Deck Description: Concrete/Lightweight Concrete/Cementitious Wood Fiber/Poured Gypsum/Wood/Steel

System Type A(1): Anchor sheet mechanically fastened; all layers of insulation adhered with approved asphalt.

All General and System Limitations shall apply.

Anchor Sheet: One ply of GAFGLAS® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet, Ruberoid 20 or GAFGLAS® Stratavent® Eliminator™ Nailable Venting Base Sheet mechanically fastened with approved fasteners at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet 24" o.c.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation Minimum 1.3" thick	**N/A**	**N/A**
EnergyGuard™ RN Polyiso Insulation, EnergyGuard™ Polyiso Insulation Minimum 1.4" thick	**N/A**	**N/A**
EnergyGuard™ RA Composite Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation Minimum 1.5" thick	**N/A**	**N/A**
EnergyGuard™ RA Polyiso Insulation Minimum 1.75" thick	**N/A**	**N/A**
EnergyGuard™ Perlite Roof Insulation, DensDeck® Roof 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 a layer of EnergyGuard Perlite Roof Insulation or wood fiber overlay board on all polyisocyanurate insulation applications.

Base Sheet: One ply of GAFGLAS® #75 Base Sheet or GAFGLAS® #80 Ultima Base Sheet adhered to the insulation in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One or more plies of GAFGLAS® Ply 4 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, Ruberoid® Torch Granule or Ruberoid® Torch FR torch applied according to manufacturer's application instructions.
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 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. Matrix™ 303 Premium Fibered Aluminum Roof Coating or Matrix™ 304 Non-Fibered Aluminum Roof Coating applied at a rate of 1-2 gal./sq.

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

Membrane Type: SBS

Deck Type 7I: Recover, Insulated

Deck Description: Concrete/Lightweight Concrete/Cementitious Wood Fiber/Poured Gypsum/Wood/Steel

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

All General and System Limitations shall apply.

Anchor Sheet: One ply of GAFGLAS® #75 Base Sheet, GAFGLAS #80 Ultima™ Base Sheet, Ruberoid 20 or GAFGLAS® Stratavent® Eliminator™ Nailable Venting Base Sheet mechanically fastened with approved fasteners at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet 24" o.c.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation Minimum 1.3" thick	**N/A**	**N/A**
EnergyGuard™ RN Polyiso Insulation, EnergyGuard™ Polyiso Insulation Minimum 1.4" thick	**N/A**	**N/A**
EnergyGuard™ RA Composite Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation Minimum 1.5" thick	**N/A**	**N/A**
EnergyGuard™ RA Polyiso Insulation Minimum 1.75" thick	**N/A**	**N/A**
EnergyGuard Perlite Roof Insulation, DensDeck® Roof 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® Eliminator™ Perforated Venting Base Sheet laid dry or a layer of EnergyGuard Perlite Roof Insulation or wood fiber overlay board on all polyisocyanurate insulation applications.

Base Sheet: One ply of GAFGLAS® Ply 4, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet or Ruberoid® 20 adhered to the insulation in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One or more plies of GAFGLAS® Ply 4, GAFGLAS® FlexPly™ 6 or a single ply of Ruberoid® 20 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® Mop Granule, Ruberoid® Mop Plus Granule, Ruberoid® 30 or Ruberoid® 30 FR, Ruberoid Mop 170 FR or Ruberoid® Mop 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 manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. Matrix™ 303 Premium Fibered Aluminum Roof Coating or Matrix™ 304 Non-Fibered Aluminum Roof Coating applied at a rate of 1-2 gal./sq.

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

Membrane Type: APP

Deck Type 7I: Recover, Insulated

Deck Description: Concrete/Lightweight Concrete/Cementitious Wood Fiber/Poured Gypsum/Wood/Steel

System Type B(1): Base layers of insulation mechanically fastened, optional top layer adhered with approved asphalt.

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™ RA Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation		
Minimum 1.3" thick	**Approved Fastener for Deck type**	**1:2 ft²**
EnergyGuard™ RN Polyiso Insulation		
Minimum 1.4" thick	**Approved Fastener for Deck type**	**1:2 ft²**
Minimum 2" thick	**Approved Fastener for Deck type**	**1:4 ft²**
EnergyGuard™ Polyiso Insulation		
Minimum 1.4" thick	**Approved Fastener for Deck type**	**1:2 ft²**
EnergyGuard™ RA Composite Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation		
Minimum 1.5" thick	**Approved Fastener for Deck type**	**1:2 ft²**
EnergyGuard™ RA Polyiso Insulation		
Minimum 1.75" thick	**Approved Fastener for Deck type**	**1:2 ft²**
EnergyGuard Perlite Roof Insulation, DensDeck® Roof Board		
Minimum ½" thick	**Approved Fastener for Deck type**	**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.

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Any of the insulations listed for Base Layer		
EnergyGuard Perlite Roof Insulation, EnergyGuard Perlite Recover Board, DensDeck® Roof 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: One ply of GAFGLAS® #75, GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 adhered to the insulation in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One or more plies of GAFGLAS® Ply 4 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.

Note: **Where Ruberoid® 20 or GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base Sheet is applied as a base sheet, it shall be covered with one ply of GAFGLAS® Ply 4 or FlexPly™ 6 before torch application of membrane.**

Membrane: One or more plies of Ruberoid® Torch Smooth, Ruberoid® Torch Granule or Ruberoid® Torch FR torch applied according to manufacturer's application instructions.

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 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. Matrix™ 303 Premium Fibered Aluminum Roof Coating or Matrix™ 304 Non-Fibered Aluminum Roof Coating applied at a rate of 1-2 gal./sq.

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

Membrane Type: SBS

Deck Type 7I: Recover, Insulated

Deck Description: Concrete/Lightweight Concrete/Cementitious Wood Fiber/Poured Gypsum/Wood/Steel

System Type B(2): Base layers of insulation mechanically fastened, optional top layer adhered with approved asphalt.

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™ RA Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation		
Minimum 1.3" thick	**Approved Fastener for Deck type**	**1:2 ft²**
EnergyGuard™ RN Polyiso Insulation		
Minimum 1.4" thick	**Approved Fastener for Deck type**	**1:2 ft²**
Minimum 2" thick	**Approved Fastener for Deck type**	**1:4 ft²**
EnergyGuard™ Polyiso Insulation		
Minimum 1.4" thick	**Approved Fastener for Deck type**	**1:2 ft²**
EnergyGuard™ RA Composite Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation		
Minimum 1.5" thick	**Approved Fastener for Deck type**	**1:2 ft²**
EnergyGuard™ RA Polyiso Insulation		
Minimum 1.75" thick	**Approved Fastener for Deck type**	**1:2 ft²**
EnergyGuard Perlite Roof Insulation, DensDeck® Roof Board		
Minimum ½" thick	**Approved Fastener for Deck type**	**1:2 ft²**

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Any of the insulations listed for Base Layer, above.		
EnergyGuard™ RA Composite Polyiso Insulation		
Minimum 1.5" thick	**N/A**	**N/A**
EnergyGuard Perlite Roof Insulation, DensDeck® Roof Board		
Minimum ½" thick	**N/A**	**N/A**

Note: Apply top layer of insulation 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® Eliminator™ Perforated Venting Base Sheet laid dry or a layer of EnergyGuard Perlite Roof Insulation or wood fiber overlay board on all polyisocyanurate insulation applications.

Base Sheet: One ply of GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base Sheet, GAFGLAS® #75 Base Sheet, GAFGLAS #80 Ultima™ Base Sheet or Ruberoid® 20 adhered to the insulation in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One or more plies of GAFGLAS® Ply 4, GAFGLAS® FlexPly™ 6 or a single ply of Ruberoid® 20 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® Mop 170 FR, Ruberoid® Mop Granule, Ruberoid® Mop Plus, Ruberoid® 30, Ruberoid® 30 FR or Ruberoid® Mop Smooth 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 manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. Matrix™ 303 Premium Fibered Aluminum Roof Coating or Matrix™ 304 Non-Fibered Aluminum Roof Coating applied at a rate of 1-2 gal./sq.

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

Membrane Type: APP

Deck Type 7I: Recover, Insulated

Deck Description: Concrete/Lightweight Concrete/Cementitious Wood Fiber/Wood/Steel

System Type C(1): All layers of insulation simultaneously attached.

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™ RA Polyiso Insulation		
Minimum 1.3" thick	**N/A**	**N/A**
EnergyGuard™ RN Polyiso Insulation, EnergyGuard™ Polyiso Insulation		
Minimum 1.4" thick	**N/A**	**N/A**
EnergyGuard™ RA Composite Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation		
Minimum 1.5" thick	**N/A**	**N/A**
EnergyGuard™ RA Composite Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation		
Minimum 1.75" thick	**N/A**	**N/A**
EnergyGuard Perlite Roof Insulation, EnergyGuard Perlite Recover Board		
Minimum ½" thick	**N/A**	**N/A**
EnergyGuard Perlite Roof Insulation, EnergyGuard Perlite Recover Board, DensDeck® Roof Board		
Minimum ½" 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 e 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™ RN Polyiso Insulation		
Minimum 1.4" thick	**Approved Fastener for Deck type**	**1:2 ft²**
Minimum 2" thick	**Approved Fastener for Deck type**	**1:4 ft²**
EnergyGuard™ Polyiso Insulation		
Minimum 1.4" thick	**Approved Fastener for Deck type**	**1:2 ft²**
EnergyGuard™ RA Composite Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation		
Minimum 1.5" thick	**Approved Fastener for Deck type**	**1:2 ft²**
EnergyGuard™ RA Polyiso Insulation		
Minimum 1.75" thick	**Approved Fastener for Deck type**	**1:2 ft²**
EnergyGuard Perlite Roof Insulation, DensDeck® Roof Board		
Minimum ½" thick	**Approved Fastener for Deck type**	**1:2 ft²**

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment. GAF requires either a ply of GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base Sheet laid dry or a layer of EnergyGuard Perlite Roof Insulation or wood fiber overlay board on all polyisocyanurate insulation applications.

Base Sheet: One ply of GAFGLAS® Ply 4, GAFGLAS FlexPly™ 6 GAFGLAS® #75 Base Sheet, GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base Sheets loose laid or Ruberoid® 20 adhered to the insulation in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Note: **Where Ruberoid® 20 or GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base Sheet is applied as a base sheet, it shall be covered with one ply of GAFGLAS® Ply 4 or GAFGLAS® FlexPly™ Ply 6 before torch application of membrane.**

Ply Sheet: (Optional) One or more plies of GAFGLAS® Ply 4 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, Ruberoid® Torch Granule or Ruberoid® Torch FR torch applied according to manufacturer's application instructions.

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 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. Matrix™ 303 Premium Fibered Aluminum Roof Coating or Matrix™ 304 Non-Fibered Aluminum Roof Coating applied at a rate of 1-2 gal./sq.

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

Membrane Type: SBS

Deck Type 7I: Recover, Insulated

Deck Description: Concrete/Lightweight Concrete/Cementitious Wood Fiber/Wood/Steel

System Type C(2): All layers of insulation simultaneously attached.

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™ RN Polyiso Insulation Minimum 1.4" thick	**N/A**	**N/A**
EnergyGuard™ RA Composite Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation Minimum 1.5" thick	**N/A**	**N/A**
EnergyGuard™ RA Polyiso Insulation Minimum 1.75" thick	**N/A**	**N/A**
EnergyGuard Perlite Roof Insulation, EnergyGuard Perlite Recover Board, DensDeck® Roof Board Minimum ½" 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 e 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 Perlite Roof Insulation Minimum ½" thick	**Approved Fastener for Deck type**	**1:2.67 ft²**

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment. GAF requires either a ply of GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base Sheet laid dry or a layer of EnergyGuard Perlite Roof Insulation or wood fiber overlay board on all polyisocyanurate insulation applications.

Base Sheet: One ply of GAFGLAS® Ply 4, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, GAFGLAS #80 Ultima™ Base Sheet, GAFGLAS® Stratavent® Eliminator™ Nailable Venting Base Sheet or Ruberoid® 20 adhered to the insulation in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet:	(Optional) One or more plies of GAFGLAS® Ply 4, GAFGLAS FlexPly™ 6 or a single ply of Ruberoid® 20 fully 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® Mop 170 FR, Ruberoid® Mop Granule, Ruberoid® Mop Plus or Ruberoid® Mop 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 manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. Matrix™ 303 Premium Fibered Aluminum Roof Coating or Matrix™ 304 Non-Fibered Aluminum Roof Coating applied at a rate of 1-2 gal./sq.

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

Membrane Type	APP
Deck Type 7I:	Recover, Insulated
Deck Description:	Minimum 22 gauge, 33 ksi steel deck with supports spaced maximum 72″ o.c. OR Structural Concrete (Minimum 2500 psi), recover *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 175 lbf. when tested with the fastener chosen for insulation attachment Drill-Tec™ #14 Fasteners (steel or structural concrete deck) installed through to the deck in accordance with TAS 105. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submittted Table.**
System Type C(3):	One or more layers of insulation is mechanically attached, perforated base sheet loose laid over the insulation.

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation Minimum 2" thick	**2, 7**	**1:1.45 ft²**

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

Base Sheet:	One ply of GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base Sheet loose laid with 2" side laps.
Ply Sheet:	One, two or three plies of GAFGLAS® Ply 4 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 or Ruberoid® Torch Granule applied according to manufacturer's application instructions.
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 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. Matrix™ 303 Premium Fibered Aluminum Roof Coating or Matrix™ 304 Non-Fibered Aluminum Roof Coating applied at a rate of 1-2 gal./sq.

Maximum Design Pressure:	-60 psf. (See General Limitation #7.)

Membrane Type: APP

Deck Type 7I: Recover, Insulated

Deck Description: Concrete/Lightweight Concrete/Cementitious Wood Fiber/Wood/Steel

System Type D(1): All layers of insulation and base sheet simultaneously attached.

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
EnergyGuard™ RN Polyiso Insulation, EnergyGuard™ Polyiso Insulation		
Minimum 1.4" thick	**N/A**	**N/A**
EnergyGuard™ RA Composite Polyiso Insulation, Energy Guard™ RN Polyiso Insulation		
Minimum 1.5" thick	**N/A**	**N/A**
EnergyGuard™ RA Polyiso Insulation		
Minimum 1.75" thick	**N/A**	**N/A**
DensDeck® Roof Board		
Minimum 1" thick	**N/A**	**N/A**
EnergyGuard Perlite Roof Insulation, DensDeck® Roof Board		
Minimum ½" 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. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. GAF requires either a ply of GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base Sheet laid dry or a layer of EnergyGuard Perlite Roof Insulation or wood fiber overlay board on all polyisocyanurate insulation applications.

Base Sheet: One ply of GAFGLAS® #75 Base Sheet, GAFGLAS® Stratavent® Eliminator™ Nailable Venting Base Sheet mechanically fastened with approved fasteners at a 4" side lap 18" o.c. and two rows staggered in the center of the sheet 24" o.c.

Ply Sheet: (Optional) One or more plies of GAFGLAS® Ply 4 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, Ruberoid® Torch Granule or Ruberoid® Torch FR torch applied according to manufacturer's application instructions.

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 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. Matrix™ 303 Premium Fibered Aluminum Roof Coating or Matrix™ 304 Non-Fibered Aluminum Roof Coating applied at a rate of 1-2 gal./sq.

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

Membrane Type: SBS

Deck Type 7I: Recover, Insulated

Deck Description: Concrete/Lightweight Concrete/Cementitious Wood Fiber/Wood/Steel

System Type D(2): All layers of insulation and base sheet simultaneously attached.

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™ RN Polyiso Insulation Minimum 1.4" thick	**N/A**	**N/A**
Energy Guard™ Polyiso Insulation Minimum 1.4" thick	**N/A**	**N/A**
EnergyGuard™ RA Composite Polyiso Insulation, Energy Guard™ RN Polyiso Insulation, EnergyGuard Perlite Roof Insulation Minimum 1.5" thick	**N/A**	**N/A**
EnergyGuard™ RA Polyiso Insulation Minimum 1.75" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Perlite Roof Insulation, DensDeck® Roof Board Minimum ½" 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. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. GAF requires either a ply of GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base Sheet laid dry or a layer of EnergyGuard™ Perlite Roof Insulation or wood fiber overlay board on all polyisocyanurate insulation applications.

Base Sheet: One ply of GAFGLAS® #75 Base Sheet, GAFGLAS® Stratavent® Eliminator™ Nailable Venting Base Sheet or GAFGLAS #80 Ultima™ Base Sheet mechanically fastened with approved fasteners at a 4" side lap 18" o.c. and two rows staggered in the center of the sheet 24" o.c.

Ply Sheet: (Optional) One or more plies of GAFGLAS® Ply 4, GAFGLAS® FlexPly™ 6 or a single ply of Ruberoid® 20 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® Mop Granule, Ruberoid® Mop 170 FR, Ruberoid® Mop Plus, Ruberoid® 30, Ruberoid® 30 FR or Ruberoid® Mop Smooth 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 manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. Matrix™ 303 Premium Fibered Aluminum Roof Coating or Matrix™ 304 Non-Fibered Aluminum Roof Coating applied at a rate of 1-2 gal./sq.

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

Membrane Type: APP

Deck Type 7: Recover, Non-Insulated

Deck Description: Concrete/Lightweight Concrete/Cementitious Wood Fiber/Wood/Steel

System Type E(1): Base sheet mechanically fastened.

All General and System Limitations shall apply.

Base Sheet: One ply of GAFGLAS® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet or GAFGLAS® Stratavent® Eliminator™ Nailable Venting Base Sheet mechanically fastened with approved fasteners at a 4" side lap 18" o.c. and two rows staggered in the center of the sheet 24" o.c.

Ply Sheet: (Optional) One or more plies of GAFGLAS® Ply 4® or GAFGLAS® FlexPly™ 6 ply sheets 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, Ruberoid® Torch Granule or Ruberoid® Torch FR torch applied according to manufacturer's application instructions.

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 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. Matrix™ 303 Premium Fibered Aluminum Roof Coating or Matrix™ 304 Non-Fibered Aluminum Roof Coating applied at a rate of 1-2 gal./sq.

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

Membrane Type: SBS

Deck Type 7: Recover, Non-Insulated

Deck Description: Concrete/Lightweight Concrete/Cementitious Wood Fiber/Wood/Steel

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

All General and System Limitations shall apply.

Base Sheet: One ply of GAFGLAS® Ply 4, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base Sheet or Ruberoid® 20 adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One or more plies of GAFGLAS® Ply 4, GAFGLAS FlexPly™ 6 or a single ply of Ruberoid® 20 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® Mop Granule, Ruberoid® Mop 170 FR, Ruberoid® Mop Plus or Ruberoid® Mop Smooth 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 manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. Matrix™ 303 Premium Fibered Aluminum Roof Coating or Matrix™ 304 Non-Fibered Aluminum Roof Coating applied at a rate of 1-2 gal./sq.

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

Membrane Type: APP

Deck Type 7: Recover, Non-Insulated

Deck Description: Concrete/Lightweight Concrete/Cementitious Wood Fiber/Wood/Steel

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

All General and System Limitations shall apply.

Base Sheet: One ply of GAFGLAS® #75 Base Sheet or GAFGLAS® #80 Ultima™ Base Sheet adhered to a properly prepared existing roof substrate in a spot or strip or spot mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One or more plies of GAFGLAS® Ply 4 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 ply of Ruberoid® Torch Smooth, Ruberoid® Torch Granule or Ruberoid® Torch FR torch applied according to manufacturer's application instructions.

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 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. Matrix™ 303 Premium Fibered Aluminum Roof Coating or Matrix™ 304 Non-Fibered Aluminum Roof Coating applied at a rate of 1-2 gal./sq.

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

Membrane Type: SBS

Deck Type 7: Recover, Non-Insulated

Deck Description: Concrete/Lightweight Concrete/Cementitious Wood Fiber/Wood/Steel

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

All General and System Limitations shall apply.

Base Sheet: One ply of GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base Sheet loose laid.

Ply Sheet: One or more plies of GAFGLAS® Ply 4 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 ply of Ruberoid® Mop Granule, Ruberoid® Mop 170 FR, Ruberoid® 30, Ruberoid® 30 FR or Ruberoid® Mop 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 manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. Matrix™ 303 Premium Fibered Aluminum Roof Coating or Matrix™ 304 Non-Fibered Aluminum Roof Coating applied at a rate of 1-2 gal./sq.

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

RECOVER SYSTEM LIMITATIONS:

1 All System Limitations and General Limitations shall apply. See specific deck type Notice of Acceptance for deck type System Limitations.

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