MIAMI-DADE

BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908

NOTICE OF ACCEPTANCE (NOA)

GAF Material Corporation
1361 Alps Road
Wayne, NJ 07470

SCOPE:
This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by the BCCO and accepted by the Building Code and Product Review Committee 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 BCCO (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. BCCO reserves the right to revoke this acceptance, if it is determined by BCCO 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 High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: GAF Conventional Built-Up-Roof System for Concrete Decks.

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 #00-0403.02 and consists of pages 1 through 28.
The submitted documentation was reviewed by Frank Zuloaga, RRC.

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	BUR
Deck Type:	Concrete
Maximum Design Pressure	-457.5 psf
Fire Classification:	See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
GAF Asphalt Concrete Primer (Matrix™ 307 Primer)	5, 55 gallons	ASTM D 41	Asphalt concrete primer used to promote adhesion of asphalt in built-up roofing.
GAF Mineral Shield® Granules	60 lb. & 100 lb bags	ASTM D 1863	Granules for surfacing of exposed asphalt, cold process cement or emulsion. GAF Mineral Shield® Granules shall be used for flashing applications only.
GAF WeatherCoat® Emulsion (Matrix™ Fibered 305 Emulsion)	5 gallons	ASTM 1227	Surface coating for smooth surfaced roofs.
GAF Premium Fibered Aluminum Roof Coating (Matrix™ System Pro Aluminum Roof Coating Fibered 301)	1, 5 gallons	ASTM D 2824	Fibered aluminum coating.
GAF Jetblak All Weather Plastic Cement (Matrix™ Standard Wet/Dry Roof Cement 204)	1, 5 gallons	ASTM D 3019 ASTM D 3409	Refined asphalt blended with a mineral stabilizer and fibers. Permits adhesion to wet and dry surfaces.
GAF Aluminum Emulsion	5 gallons		Mineral colloidial bituminous emulsion with reflective aluminum flakes.
GAF Aluminum Roof Paint (Matrix™ System Pro Aluminum Roof Coating Fibered 302)	5 gallons	ASTM D2824, Type I	Non-fibered. aluminum pigmented, asphalt roof coating.
GAF Built-Up Roofing Asphalt	100 lb. cartons, bulk	ASTM D312, Tpyes I, II, III and IV1	Interply mopping and surfacing asphalt
GAFGLAS® #75	39.37" (1 meter) Wide	ASTM D 4601	Asphalt impregnated and coated glass mat base sheet.

Product	Dimensions	Test Specification	Product Description
GAFGLAS #80 Ultima™ Base Sheet	39.37" (1 meter) Wide	ASTM D4601	Asphalt impregnated and coated, fiberglass base sheet.
GAFGLAS FlexPly™ 6	39.37" (1 meter) Wide	ASTM D 2178	Type VI asphalt impregnated glass felt with asphalt coating.
GAFGLAS Ply 4®	39.37" (1 meter) Wide	ASTM D 2178	Type IV asphalt impregnated glass felt with asphalt coating.
GAFGLAS® Mineral Surfaced Cap Sheet	39.37" (1 meter) Wide	ASTM D 3909	Asphalt coated, glass fiber mat cap sheet surfaced with mineral granules.
GAFGLAS® STRATAVENT® Eliminator Perforated	39.37" (1 meter) Wide	ASTM D3672 ASTM D 4897	Fiberglass base sheet coated on both sides with asphalt. Surfaced on the bottom side with mineral granules embedded in asphaltic coating with factory perforations.
GAFGLAS® Flashing	various		Asphalt coated glass fiber mat flashing sheet available in three sizes.
GAFGLAS® STRATAVENT® Eliminator Perforated Nailable	39.37" (1 meter) Wide	ASTM D3672 ASTM D 4897	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 D5147 ASTM D6298	Non-woven polyester mat coated with polymer modified asphalt. Does not have a factory applied surfacing.
RUBEROID ULTRACLAD® SBS	1 sq. roll 101 lb.	ASTM D5147	Woven fiberglass mat coated with polymer modified asphalt and surfaced with aluminum, copper or stainless steel foil.
RUBEROID MOD Asphalt, Asphalt L & Asphalt P	60 lb. kegs		SEBS modified asphalt
RUBEROID® Modified Base Sheet	39.37" (1 meter) Wide	ASTM D4601 Type II, Type G2 BUR	Premium glass fiber reinforced SBS-modified base sheet.
Ruberoid® Mop Granule	39.37" (1 meter) Wide	ASTM D 6222 ASTM D 5147	Non-woven polyester mat coated with polymer modified asphalt and surfaced with mineral granules.
Ruberoid® Torch Smooth	39.37" (1 meter) Wide	ASTM D 5147	Heavy duty, polyester reinforced, asphalt modified bitumen membrane.
Ruberoid® Torch Plus (Granule)	39.37" (1 meter) Wide	ASTM D 6222 ASTM D 5147	Heavy duty, polyester reinforced, asphalt modified bitumen membrane.
Ruberoid® Torch Granule	39.37" (1 meter) Wide	ASTM D 6222 ASTM D 5147	Asphalt impregnated, coated felt, surfaced with mineral granules.
Ruberoid® Torch FR	39.37" (1 meter) Wide	ASTM D 6222 ASTM D 5147	Heavy duty, polyester reinforced, coated with fire retardant asphalt modified bitumen membrane, granule surface.

Product	Dimensions	Test Specification	Product Description
Ruberoid® Mop Plus (Granule)	39.37" (1 meter) Wide	ASTM D 6164 ASTM D 5147	Non-woven polyester mat coated with polymer modified asphalt and surfaced with mineral granules.
Ruberoid® Mop FR	39.37" (1 meter) Wide	ASTM D 6164 ASTM D 5147	Non-woven polyester mat coated with fire-retardant, polymer modified asphalt surfaced with mineral granules.
Ruberoid® 20	39.37" (1 meter) Wide	ASTM D 6163 ASTM D 5147	SBS modified asphalt base sheet reinforce with a glass fiber mat.
Ruberoid® 30	39.37" (1 meter) Wide	ASTM D 6163 ASTM D 5147	Non woven fiberglass mat coated with polymer modified asphalt and surfaced with mineral granules.
Ruberoid® 30 FR	39.37" (1 meter) Wide	ASTM D 6163 ASTM D 5147	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 D 6164 ASTM D 5147	Non-woven polyester mat coated with fire retardant polymer modified asphalt surfaced with mineral granules.
Vent Stacks (metal and plastic)		PA 100(A) ASTM D 1929 ASTM D 635	One way valve vent used to relieve built-up pressure within the roof system. GAF Vent Stacks are available in metal or plastic.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
GAFTEMP Isotherm RA, RN & Composite	Polyisocyanurate foam insulation	GAF Materials Corp.
GAFTEMP® Composite A & N	Polyisocyanurate foam insulation with high density fiberboard or Permalite perlite insulation.	GAF Materials Corp.
(BMCA)GAFTEMP® Fiberboard	Fiberboard insulation.	GAF Materials Corp.
EnergyGuard Perlite	Perlite insulation board.	GAF Materials Corp.
EnergyGuard Recover Board	Perlite recover board	GAF Materials Corp.
EnergyGuard High Density Fiberboard	High density wood fiberboard insulation.	GAF Materials Corp.
PYROX	Polyisocyanurate foam insulation	Apache Products Co.
White Line	Polyisocyanurate foam insulation	Apache Products Co.
ACFoam I, II & Composite	Polyisocyanurate foam insulation	Atlas Energy Products
ISO 95+	Polyisocyanurate foam insulation	Firestone Building Products, Inc.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
Wood Fiber	Wood fiber insulation board	generic
High Density Wood Fiberboard	Wood fiber insulation board	generic
Perlite Insulation	Perlite insulation board	generic
Pelite/Urethane Composite	Perlite / urethane composite board insulation	generic
Type X Gypsum	Fire resistant rated gypsum	generic
Dens Deck	Water resistant gypsum board	G-P Gypsum Corp.
ENRGY 2 & ENRGY 2 PLUS, UltraGard Gold	Polyisocyanurate foam insulation	Johns Manville
FiberGlass Roof Insulation	Glass fiber/Mineral fiber insulation	Johns Manville
ISORoc	Polyisocyanurate foam / rockwool composite insulation	Johns Manville
Structodek	Wood fiber insulation board	Masonite.
Paroc Base Board, Paroc Cap Board	Rockwool insulation.	Partek, Inc.
Multi-Max, FA	Polyisocyanurate roof insulation	RMax, Inc.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	GAFTITE® (Drill-Tec®) #14 Heavy Duty Roofing Fastener	Insulation fastener for steel, wood & concrete decks.		GAF Materials Corp.
2.	GAFTITE® (Drill-Tec®) ASAP	Pre-assembled GAFTITE Fasteners and metal and plastic plates.		GAF Materials Corp.
3.	GAFTITE® (Drill-Tec®) Base Sheet Fastener and Plate	Base sheet fastening assembly.		GAF Materials Corp.
4.	Galvalume Plates (Drill-Tec® Metal)	Round galvalume stress plates.	3" and 3 ½"	GAF Materials Corp.
5.	Polypropylene Plates (Drill-Tec® Plastic)	Round polypropylene stress plates.	3" and 3 ½"	GAF Materials Corp.
6.	Dekfast Fasteners #14 & #15	Insulation fastener for wood, steel and concrete decks		Construction Fasteners Inc.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
7.	Dekfast Hex Plate	Galvalume hex stress plate.	2 7/8" x 3 1/4"	Construction Fasteners Inc.
8.	Dekfast Lock Plate	Polypropylene locking plate.	3" x 3 1/4"	Construction Fasteners Inc.
9.	#14 Roofgrip Fasteners	Insulation fastener for wood and steel.		ITW Buildex Corp.
10.	Hextra Plus	Pre-assembled Insulation fastener and 3" metal plate		ITW Buildex Corp.
11.	Metal Plate	Galvalume stress plate.	3" round 3" square	ITW Buildex Corp.
12.	Gearlok Plastic Plate	Polypropylene round plate	3.2"	ITW Buildex Corp.
13.	Olympic Fastener #14	Insulation fastener		Olympic Manufacturing Group, Inc.
14.	Fluted Nail (Con-Tite)	Insulation fastener		Olympic Manufacturing Group, Inc.
15.	Olympic Fastener ASAP	Pre-assembled Insulation fastener and plate		Olympic Manufacturing Group, Inc.
16.	Olympic Polypropylene	Polypropylene plastic plate	3.25" round	Olympic Manufacturing Group, Inc.
17.	Olympic G-2	3" round galvalume AZ55 steel plate	3.5" round	Olympic Manufacturing Group, Inc.
18.	Olympic Standard	3" round galvalume AZ50 steel plate	3" round	Olympic Manufacturing Group, Inc.
19.	Rawl Drive	Insulation fastener for concrete decks		Powers Fasteners, Inc.
20.	Rawl Plate	3" round galvalume AZ55 steel plate	3" round	Powers Fasteners, Inc.
21.	HD Insul-Fixx Fastener	Insulation fastener for concrete decks		SFS/Stadler
22.	Insul-Fixx S Plate	3" round galvalume AZ50 steel plate	3" round	SFS/Stadler
23.	Insul-Fixx P Plate	3" round polyethylene stress plate	3" round	SFS/Stadler
24.	Tru-Fast Fasteners	Insulation fastener for concrete decks		Tru-Fast

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
25.	Tru-Fast MP-3	Galvalume AZ50 steel plate	3.23" round	Tru-Fast
26.	Tru-Fast Plastic Plate	Polyethylene plastic plate.	3.04" round	Tru-Fast

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Description	Date
Factory Mutual Research Corp.	FMRC 1996	Current Insulation Attachment Requirements	01.01.96
Factory Mutual Research Corp.	J.I. 2B8A4.AM	Wind Uplift	07.02.97
	J.I. 3B9Q1.AM	FMRC 44704	01.08.98
	J.I. 0D0A8.AM		07.09.99
Factory Mutual Research Corp.	J.I. 0D1A8.AM	Wind Uplift	07.29.94
	J.I. 0Y9Q5.AM	FMRC 4470 - PA 114	04.01.98

APPROVED ASSEMBLIES:

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(1): Optional Insulation layer adhered with approved asphalt.

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**
ACFoam Composite, GAFTEMP® Composite, GAFTEMP Composite A, GAFTEMP Composite N, ENRGY 2 Composite		
Minimum 1.75" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 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 used as a top layer shall be placed with the polyisocyanurate side facing down.

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima ™ GAFGLAS® PLY 4®, GAFGLAS® PLY 6®, RUBEROID Modified Base Sheet or RUBEROID® 20 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: Two 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.

Cap Sheet: (Optional) One ply of GAFGLAS® 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: (Required if no cap sheet is used) Install one of the following:

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. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq.

Maximum Design Pressure: -140 psf (See General Limitation #9.)

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(2): Insulation layer adhered with approved asphalt.

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 PERLITE Minimum 1" thick	**N/A**	**N/A**
EnergyGuard High Density Fiberboard or other Approved high density wood fiberboard Minimum ½" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 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 used as a top layer shall be placed with the polyisocyanurate side facing down.

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™ GAFGLAS® PLY 4®, GAFGLAS® FlexPly PLY 6®, RUBEROID Modified Base Sheet or RUBEROID® 20 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: 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.

Cap Sheet: (Optional) One ply of GAFGLAS® 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: (Required if no cap sheet is used) Install one of the following:

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. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq.

Maximum Design Pressure: -270 psf (See General Limitation #9.)

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(3): Insulation 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/ft^2**
GAFTEMP® Isotherm R, Isotherm RN Minimum 2" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
GAFTEMP PERLITE Minimum ½" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 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 used as a top layer shall be placed with the polyisocyanurate side facing down.

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™ GAFGLAS® PLY 4®, GAFGLAS® FlexPly PLY 6®, RUBEROID Modified Base Sheet or RUBEROID® 20 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: 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.

Cap Sheet: (Optional) One ply of GAFGLAS® 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: (Required if no cap sheet is used) Install one of the following:

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. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq.

Maximum Design Pressure: -322.5 psf (See General Limitation #9.)

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(4): Insulation 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/ft^2**
GAFTEMP® Composite NP Minimum 1.5" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
GAFTEMP® Composite Minimum 1.5" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 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 used as a top layer shall be placed with the polyisocyanurate side facing down.

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™ GAFGLAS® PLY 4®, GAFGLAS® FlexPly PLY 6®, RUBEROID Modified Base Sheet or RUBEROID® 20 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: 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.

Cap Sheet: (Optional) One ply of GAFGLAS® 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: (Required if no cap sheet is used) Install one of the following:

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. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq.

Maximum Design Pressure: -270 psf (See General Limitation #9.)

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(5): Insulation layers adhered with approved asphalt.

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 Perlite Minimum ¾" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 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 used as a top layer shall be placed with the polyisocyanurate side facing down.

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™ GAFGLAS® PLY 4®, GAFGLAS® FlexPly PLY 6®, RUBEROID Modified Base Sheet or RUBEROID® 20 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: 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.

Cap Sheet: (Optional) One ply of GAFGLAS® 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: (Required if no cap sheet is used) Install one of the following:

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. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq.

Maximum Design Pressure: -137 psf (See General Limitation #9.)

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(6): Insulation layers 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/ft^2**
ENRGY 2 Plus, AC Foam I, II, Pyrox, AP, White Line, UltraGard Gold, Multi-Max, GAFTEMP® Isotherm R, GAFTEMP Isotherm RA, GAFTEMP Isotherm RN, GAFTEMP Composite, GAFTEMP Composite A, GAFTEMP Composite N		
Minimum 1.25" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
EnergyGuard Perlite		
Minimum ½" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 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 used as a top layer shall be placed with the polyisocyanurate side facing down.

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™ GAFGLAS® PLY 4®, GAFGLAS® FlexPly PLY 6®, RUBEROID Modified Base Sheet or RUBEROID® 20 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: 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.

Cap Sheet: (Optional) One ply of GAFGLAS® 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: (Required if no cap sheet is used) Install one of the following:

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. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq.

Maximum Design Pressure: -126 psf (See General Limitation #9.)

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(7): Insulation layers adhered with approved asphalt.

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 Perlite Minimum ¾" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 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 used as a top layer shall be placed with the polyisocyanurate side facing down.

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™ GAFGLAS® PLY 4®, GAFGLAS® FlexPly PLY 6®, RUBEROID Modified Base Sheet or RUBEROID® 20 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: 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.

Cap Sheet: (Optional) One ply of GAFGLAS® 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: (Required if no cap sheet is used) Install one of the following:

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. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq.

Maximum Design Pressure: -128 psf (See General Limitation #9.)

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(8): Insulation layers adhered with approved asphalt.

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**
High Density Wood Fiberboard Minimum ½" thick	**N/A**	**N/A**

Note: Apply layers 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 layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™ GAFGLAS® PLY 4®, GAFGLAS® FlexPly PLY 6®, RUBEROID Modified Base Sheet or RUBEROID® 20 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: 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.

Cap Sheet: (Optional) One ply of GAFGLAS® 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: (Required if no cap sheet is used) Install one of the following:

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. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq.

Maximum Design Pressure: -140 psf (See General Limitation #9.)

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(9): Insulation layers 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/ft^2**
ENRGY 2 Plus, AC Foam I, II, Pyrox, AP, White Line, UltraGard Gold, Multi-Max, GAFTEMP® Isotherm R, GAFTEMP Isotherm RA, GAFTEMP Isotherm RN, GAFTEMP Composite, GAFTEMP Composite A, GAFTEMP Composite N		
Minimum 1.25" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
EnergyGuard Fiberboard		
Minimum ½" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 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 used as a top layer shall be placed with the polyisocyanurate side facing down.

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™ GAFGLAS® PLY 4®, GAFGLAS® FlexPly PLY 6®, RUBEROID Modified Base Sheet or RUBEROID® 20 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: 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.

Cap Sheet: (Optional) One ply of GAFGLAS® 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: (Required if no cap sheet is used) Install one of the following:

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. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq.

Maximum Design Pressure: -162 psf (See General Limitation #9.)

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(10): Insulation layers 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/ft^2**
ENRGY 2 Plus, AC Foam I, II, Pyrox, AP, White Line, UltraGard Gold, Multi-Max, GAFTEMP® Isotherm R, GAFTEMP Isotherm RA, GAFTEMP Isotherm RN, GAFTEMP Composite, GAFTEMP Composite A, GAFTEMP Composite N		
Minimum 1.25" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
EnergyGuard Perlite		
Minimum ¾" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 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 used as a top layer shall be placed with the polyisocyanurate side facing down.

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™ GAFGLAS® PLY 4®, GAFGLAS® FlexPly PLY 6®, RUBEROID Modified Base Sheet or RUBEROID® 20 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: 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.

Cap Sheet: (Optional) One ply of GAFGLAS® 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: (Required if no cap sheet is used) Install one of the following:

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. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq.

Maximum Design Pressure: -157 psf (See General Limitation #9.)

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type B: Optional base sheet adhered with approved asphalt; base insulation layer 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/ft^2
GAFTEMP® Isotherm R **Minimum 1.3" thick**	**1, 2, 6, 13, 14, 15, 21 or 24**	**1:3 ft^2**
ENRGY 2, GAFTEMP® Isotherm RN, ISO 95 + **Minimum 1.4" thick**	**1, 2, 6, 13, 14, 15 or 19**	**1:3 ft^2**
ENRGY 2 Plus, GAFTEMP Composite A, GAFTEMP Composite N **Minimum 1.5" thick**	**1, 2, 6, 13, 14, 15, 19, 21 or 24**	**1:4 ft^2**
ISORoc **Minimum 1.5" thick**	**1, 2, 6, 13, 14, 15 or 19**	**1:2.67 ft^2**
Perlite, GAFTEMP® PERLITE **Minimum ¾" thick**	**1, 6, 13 or 24**	**1:2 ft^2**
High Density Wood Fiber, EnergyGuard High Density Fiberboard **Minimum ¾" thick**	**1, 2, 6, 13, 14, 15 or 24**	**1:4 ft^2**
Fiberglas **Minimum $^{15}/_{16}$" thick**	**1, 6, 13, 14, 21 or 24**	**1:2.67 ft^2**
Wood Fiber, EnergyGuard Fiberboard **Minimum 1" thick**	**1, 2, 6, 9, 13, 15, 21 or 24**	**1:3 ft^2**

Note: Base layer shall be mechanically attached with fasteners and density described. 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). GAF requires either a ply of GAFGLAS STRATAVENT® Eliminator™ Perforated laid dry or a layer of EnergyGuard PERLITE or wood fiber overlay board on all isocyanurate 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**
Paroc **Minimum ¾" thick**	**N/A**	**N/A**

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

Base Sheet:	(Optional) Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima ™ GAFGLAS® PLY 4®, GAFGLAS® PLY 6®, GAFGLAS FlexPly™ GAFGLAS® STRATAVENT® Perforated, RUBEROID Modified Base Sheet or RUBEROID® 20 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:	Two 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.
Cap Sheet:	(Optional) One ply of GAFGLAS® 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:	(Required if no cap sheet is used) Install one of the following: 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. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq.
Maximum Design Pressure:	-45 psf (See General Limitation #9.)

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type C: Optional base sheet adhered with approved asphalt; One or more layers of insulation simultaneously attached; Base layers optional.

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
GAFTEMP® Isotherm R, GAFTEMP Isotherm RA, GAFTEMP Isotherm RN Minimum 1.3" thick	**N/A**	**N/A**
ENRGY 2, ISO 95 + Minimum 1.4" thick	**N/A**	**N/A**
ENRGY 2 Plus, ISORoc Minimum 1.5" thick	**N/A**	**N/A**
Perlite, EnergyGuard PERLITE, EnergyGuard Recover Board Minimum ½" thick	**N/A**	**N/A**
High Density Wood Fiber, EnergyGuard High Density Fiberboard Minimum ¾" thick	**N/A**	**N/A**
Wood Fiber, EnergyGuard Fiberboard Minimum 1" thick	**N/A**	**N/A**
Fiberglas Minimum $^{15}/_{16}$" thick	**N/A**	**N/A**

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

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Pyrox, White Line Minimum 1.3" thick	**1, 2, 6, 13, 14, 15, 21 or 24**	**1:2.67 ft^2**
GAFTEMP Isotherm R Minimum 1.3" thick	**1, 2, 6, 13, 14, 15 or 24**	**1:3 ft^2**
ISO 95 + Minimum 1.4" thick	**21 or 24**	**1:3 ft^2**
ENRGY 2, GAFTEMP Isotherm RN Minimum 1.4" thick	**1, 2, 6, 13, 14, 15, 19 or 21**	**1:4 ft^2**
ENRGY 2 Plus, GAFTEMP Composite N Minimum 1.5" thick	**1, 2, 6, 13, 14, 15, 19, 21 or 24**	**1:4 ft^2**
Perlite, GAFTEMP® PERLITE Minimum ¾" thick	**1, 2, 6, 13, 15 or 24**	**1:2 ft^2**

High Density Wood Fiber, EnergyGuard High Density Fiberboard		
Minimum ¾" thick	**1, 2, 6, 13, 14, 15 or 24**	**1:4 ft²**
Fiberglas		
Minimum $^{15}/_{16}$" thick	**1, 2, 6, 13, 14, 15, 21 or 24**	**1:2.67 ft²**
Wood Fiber, EnergyGuard Fiberboard		
Minimum 1" thick	**1, 2, 6, 9, 13, 15, 21 or 24**	**1:3 ft²**

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment. GAF requires either a ply of GAFGLAS STRATAVENT® Eliminator™ Perforated laid dry or a layer of EnergyGuard PERLITE or wood fiber overlay board on all isocyanurate applications.

Base Sheet:	(Optional) Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™, GAFGLAS® PLY 4®, GAFGLAS FlexPly™ GAFGLAS® STRATAVENT® Eliminator Perforated, RUBEROID Modified Base Sheet or RUBEROID® 20 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:	Two 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.
Cap Sheet:	(Optional) One ply of GAFGLAS® 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:	(Required if no cap sheet is used) Install one of the following: 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. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq.
Maximum Design Pressure:	-45 psf (See General Limitation #9.)

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

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

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**
Pyrox, White Line, ISORoc, UltraGuard Gold, ENRGY 2, GAFTEMP® Isotherm R, GAFTEMP Isotherm RA, GAFTEMP Isotherm RN, ENRGY 2 Plus, GAFTEMP Composite, GAFTEMP Composite A, GAFTEMP Composite N, Iso 95 +		
Minimum 1" thick	**N/A**	**N/A**
High Density Wood Fiber, EnergyGuard High Density Fiberboard Perlite, EnergyGuard PERLITE, EnergyGuard Recover Board		
Minimum ½" thick	**N/A**	**N/A**
Paroc		
Minimum ¾" thick	**N/A**	**N/A**
Wood Fiber, EnergyGuard Fiberboard		
Minimum 1" thick	**N/A**	**N/A**
Fiberglas		
Minimum $^{15}/_{16}$" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. 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 laid dry or a layer of EnergyGuard PERLITE or wood fiber overlay board on all isocyanurate applications.

Anchor Sheet: (Optional) Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima ä Base Sheet, GAFGLAS® PLY 4®, GAFGLAS FlexPly™ 6 GAFGLAS® STRATAVENT® Eliminator Perforated, RUBEROID Modified Base Sheet or RUBEROID® 20 directly to primed deck adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Base Sheet: (Optional) Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™, GAFGLAS® PLY 4®, GAFGLAS FlexPly™ GAFGLAS® STRATAVENT® Eliminator Perforated, RUBEROID Modified Base Sheet or RUBEROID® 20 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:	Two 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.
Cap Sheet:	(Optional) One ply of GAFGLAS® 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:	(Required if no cap sheet is used) Install one of the following: 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. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq.
Maximum Design Pressure:	-90 psf (See General Limitation #9.)

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.

All General and System Limitations shall apply.

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ulltima Base Sheet, GAFGLAS® PLY 4®, GAFGLAS FlexPly ™ 6, GAFGLAS® STRATAVENT® Eliminator Perforated (laid dry), RUBEROID™ Modified Base Sheet or RUBEROID® 20 directly to the 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, required when used with RUBEROID 20) 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.

Cap Sheet: (Optional) One ply of GAFGLAS® 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: (Required if no cap sheet is used) Install one of the following:

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. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq.

Maximum Design Pressure: -90 psf (See General Limitation #9.)

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:	Install one ply of GAFGLAS® #75, GAFGLAS #80 Ulltima Base Sheet, GAFGLAS® PLY 4®, GAFGLAS FlexPly™ 6, RUBEROID™ Modified Base Sheet or RUBEROID® 20 directly to the primed deck. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Ply Sheet:	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.
Cap Sheet:	(Optional) One ply of GAFGLAS® 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:	(Required if no cap sheet is used) Install one of the following: 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. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq.
Maximum Design Pressure:	-457.5 psf (See General Limitation #9.)

Deck Type 3: Concrete Decks, Non-Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(3): Base sheet GAFGLAS® STRATAVENT® Perforated, lose laid dry.

All General and System Limitations shall apply.

Base Sheet:	GAFGLAS® STRATAVENT® Eliminator Perforated, lose laid dry.
Ply Sheet:	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.
Cap Sheet:	(Optional) One ply of GAFGLAS® 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:	(Required if no cap sheet is used) Install one of the following: 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. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq.
Maximum Design Pressure:	-90 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 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 sidelap 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. **(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 with 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 9B-72 of the Florida Administrative Code.

END OF THIS ACCEPTANCE