Ruberoid® Modified Bitumen Roof Systems for Cementitious Wood Fiber Decks

Miami-Dade County
Notice of Acceptance (NOA)

Updated: 4/09

Quality You Can Trust...From
North America's Largest Roofing Manufacturer!™

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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 Miami-Dade County Product Control Division (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. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division 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 and the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: GAF RUBEROID® Modified Bitumen Roof System for Cementitious Wood Fiber Decks.

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

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

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

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

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

This NOA revises NOA No. 08-0317.03 and consists of pages 1 through 20.
The submitted documentation was reviewed by Jorge L. Acebo.

MIAMI-DADE COUNTY APPROVED

NOA No.: 09-0226.06
Expiration Date: 11/06/13
Approval Date: 04/22/09

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Modified Bitumen
Material:	SBS/APP
Deck Type:	Cementitious Wood Fiber
Maximum Design Pressure	-82.5 psf

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
LeakBuster™ Matrix™ 307 Premium Asphalt 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. 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.
Leak Buster™ Matrix™ 305 Fibered Asphalt Emulsion	5 gallons	ASTM 1227	Surface coating for smooth surfaced roofs.
LeakBuster™ Matrix™ 303 Premium Fibered Aluminum Roof Coating	1, 5 gallons	ASTM D 2824	Fibered aluminum coating.
LeakBuster™ Matrix™ 203 Plastic Roof Cement	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.
LeakBuster™ Matrix™ 304 Non Fibered Aluminum Roof Coating	5 gallons	ASTM D 2824, Type I	Non-fibered. Aluminum pigmented, asphalt roof coating
RUBEROID® Modified Bitumen Flashing Cement	5 gallons	ASTM D 4586	Fiber reinforced, polymer modified Flashing cement
GAFGLAS® #75	39.37" (1 meter) wide	ASTM D 4601	Asphalt impregnated and coated glass mat base sheet.
GAFGLAS® #80 ULTIMA Base Sheet	39.37" (1 meter) wide	ASTM D 4601	Asphalt impregnated and coated, fiberglass base sheet
GAFGLAS® Flex Ply™ 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.

Product	Dimensions	Test Specification	Product Description
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® EnergyCap™ BUR Mineral Surface Cap Sheet	39.37" (1 meter) wide	ASTM D 3909 Energystar™ Title 24 Compliant	Asphalt coated, glass fiber mat cap sheet surfaced with mineral granules with factory applied EnergyCote™
GAFGLAS® STRATAVENT® Eliminator™ Perforated	39.37" (1 meter) wide	ASTM D 4897 ASTM D 3672	Fiberglass base sheet impregnated and 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 D 4897 ASTM D 3672	Fiberglass base sheet impregnated and coated on both sides with asphalt. Surfaced on the bottom side with mineral granules embedded in asphaltic coating.
RUBEROID® SBS Heat-Weld™ Smooth	1 meter (39.37") wide	ASTM D 6164	Non-Woven Polyester mat coated with polymer-modified asphalt and smooth surfaced.
RUBEROID® SBS Heat-Weld™ Granule	39.37" (1 meter) wide	ASTM D 6164	Non-Woven Polyester mat coated with polymer modified asphalt and surfaced with mineral granules.
Roof Match™ APP Granule	107 sq. ft. (9.9 m2)	ASTM D 6222 ASTM D 5147	Non-woven polyester mat coated with polymer modified asphalt and surfaced with colored mineral granules.
RUBEROID® SBS Heat-Weld™ 170 FR	39.37" (1 meter) wide	ASTM D 6164	Non-Woven Polyester mat coated with fire retardant polymer modified asphalt and surfaced with mineral granules.
RUBEROID® SBS Heat-Weld™ PLUS	39.37" (1 meter) wide	ASTM D 6164	Non-Woven Polyester mat coated with polymer modified asphalt and surfaced with mineral granules.
RUBEROID® SBS Heat-Weld PLUS FR	39.37" (1 meter) wide	ASTM D 6164	Non-Woven Polyester mat coated with fire retardant polymer modified asphalt and surfaced with mineral granules.
RUBEROID® EnergyCap SBS Heat-Weld™ PLUS FR	39.37" (1 meter) wide	ASTM D 6164	A fiberglass mat reinforced, SBS modified bitumen cap membrane.

Product	Dimensions	Test Specification	Product Description
RUBEROID® SBS Heat-Weld™ 25	39.37" (1 meter) wide	ASTM D 6164	Non-Woven Polyester mat coated with polymer modified asphalt and smooth surfaced.
RUBEROID® Modified Base Sheet	39.37" (1 meter) wide	ASTM D 4601, Type II, UL Type G2 BUR	Premium glass fiber reinforced SBS-modified base sheet
RUBEROID® 20	39.37" (1 meter) wide	ASTM D 6163 ASTM D 5147	SBS modified asphalt base sheet and interply sheet reinforce with a glass fiber mat.
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.
Roof Match™ SBS Granule	107 sq. ft. (9.9 m2)	ASTM D 6222 ASTM D 5147	Non-woven polyester mat coated with polymer modified asphalt and surfaced with colored mineral granules.
RUBEROID® Mop Plus (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® MOP Smooth	39.37" (1 meter) wide	ASTM D 6164 ASTM D 5147	Non-woven polyester mat coated with polymer modified asphalt and smooth surfaced.
RUBEROID® MOP 170FR	39.37" (1 meter) wide	ASTM D 6164 ASTM D 5147	Non-Woven polyester mat coated with fire retardant 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 and surfaced with mineral granules.
RUBEROID® TORCH Smooth	39.37" (1 meter) wide	ASTM D 5147	Heavy duty, polyester reinforced, asphalt modified bitumen membrane, smooth surface.
RUBEROID® TORCH Granule	39.37" (1 meter) wide	ASTM D 5147	Asphalt impregnated, coated felt, surfaced with mineral granule.
RUBEROID® EnergyCap Torch Granule FR	1 meter (39.37") wide	ASTM D 6222	A fiberglass mat reinforced, SBS modified bitumen cap membrane.
Roof Match™ APP Torch Granule	107 sq. ft. (9.9 m2)	ASTM D 6222 ASTM D 5147	Non-woven polyester mat coated with polymer modified asphalt and surfaced with colored mineral granules.

Product	Dimensions	Test Specification	Product Description
RUBEROID® TORCH PLUS (Granule)	39.37" (1 meter) wide	ASTM D 6222 ASTM D 5147	Heavy duty, polyester reinforced, asphalt modified bitumen membrane, granule surface
RUBEROID® TORCH FR	39.37" (1 meter) wide	ASTM D 6222 ASTM D 5147	Non-woven polyester mat coated with fire retardant polymer modified asphalt surfaced with mineral granules.
RUBEROID® 170FR TORCH	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.
RUBEROID® EnergyCap SBS Heat Weld Plus FR	39.37" (1 meter) wide	ASTM D6163 ASTM D5147	A fiberglass mat reinforced, SBS modified bitumen cap membrane.
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® EnergyCap SBS 30 FR	39.37" (1 meter) wide	ASTM D 6163	A fiberglass mat reinforced, SBS modified bitumen cap membrane.
RUBEROID® ULTRACLAD® SBS	39.37" (1 meter) wide	ASTM D 6298 ASTM D 5147	Woven fiberglass mat coated with Polymer modified asphalt and surfaced with aluminum, copper or stainless steel foil.
RUBEROID® Dual FR	39.37" (1 meter) Wide	ASTM D 6164 ASTM D 5147	Non-woven polyester and fiberglass mat coated with file retardant, polymer modified asphalt and surfaced with mineral granules.
Vent Stacks (metal and plastic)		TAS 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.
GAF Built-Up Roofing Asphalt	100 lb. cartons, bulk	ASTM D 312, Types I, II, III and IV	Interply mopping and surfacing asphalt
RUBEROID® MOD Asphalt, Asphalt L & Asphalt P	60 lb. kegs		SEBS modified asphalt
RUBEROID® SEBS Modified Asphalt, Asphalt Lite & Asphalt Plus	60 lb. kegs		SEBS modified asphalt

Product	Dimensions	Test Specification	Product Description
TOPCOAT® Surface Seal SB	5 gallons		Surface coating for smooth surfaced and mineral surfaced roofs.
LeakBuster™ Matrix™ 715 MB Elastomeric Roofing Membrane	5 gallons	ASTM D 3412 ASTM D 21-96 ASTM D 1475 ASTM E 1644 ASTM D 6083	Surface coating for smooth surfaced and mineral surfaced roofs.
Leak Buster™ Matrix™ 531 WeatherCote™	5 gallons		Surface coating for smooth surfaced and mineral surfaced roofs.
Matrix Low VOC	5 gallons		Surface coating for smooth surfaced and mineral surfaced roofs.
LeakBuster™ Matrix™ 102 SBS Adhesive	5 gallons	ASTM D 3019	Cold Applied Modified SEBS Asphalt Adhesive
Leak Buster™ Matrix™ 103 Cold Process Adhesive	5 gallons	ASTM D 3019	Cold Applied Asphalt Adhesive.
LeakBuster™ Matrix™ 201 Premium SBS Flashing Cement	5 gallons	ASTM D 3019	Cold Applied Modified SEBS Asphalt Adhesive – Flashing Grade.
LeakBuster™ Matrix™ 202 SBS Flashing Cement	5 gallons	ASTM D 3019	Cold Applied Modified SEBS Asphalt Adhesive.
LeakBuster™ Matrix™ 203 Plastic Roof Cement	5 gallons	ASTM D 4586	Standard Plastic Asphalt Roofing Cement
Matrix 213 Gun Grade Plastic Cement	5 gallons	ASTM D 4586	Standard Plastic Asphalt Roofing Cement Caulk Grade.
Leak Buster™ Matrix™ 322 Elastomeric Roof Coating		ASTM D 1653 ASTM D 12 ASTM E 470 ASTM D 6038	Surface coating for smooth surfaced and mineral surfaced roofs.
Leak Buster™ Matrix™ 602 MB Xtra Elastomeric Roofing Membrane	5 gallons	ASTM D 412 ASTM B 117 ASTM C 794 ASTM G 21 FTMS141.6271 ASTM D 21-96 ASTM D 1475 ASTM E 1644	Surface coating for smooth surfaced and mineral surfaced roofs.

Product	Dimensions	Test Specification	Product Description
LeakBuster™ Matrix™ 715 MB Elastomeric Roofing Membrane	5 gallons	ASTM D 3412 ASTM D 21-96 ASTM D 1475 ASTM E 1644 ASTM D 6083	Surface coating for smooth surfaced and mineral surfaced roofs.
TOPCOAT® FireShield® SB Fireshield® MB	5, 55 gallons	ASTM D 412 ASTM D 21 ASTM D 1475 ASTM E 1644	Elastomeric roofing membrane
TOPCOAT® MB Plus	5, 55 gallons	ASTM D 412, ASTM D 21-96, ASTM D 1475, ASTM E 1644	Water-based, low VOC, sprayable polymeric liquid, which cures to form a seamless rubber membrane.
RUBEROID® Modified Bitumen Adhesive	5 gallons	ASTM D 3019 Type III	Fiber reinforced, rubberized Adhesive
EnergyCote™ Coating	2, 5 gallons		Highly reflective elastomeric coating
TOPCOAT® Surface Seal SB		ASTM D 412 ASTM B 117 ASTM C 794 ASTM G 21 FTMS141.6271 ASTM D 21-96 ASTM D 1475 ASTM E 1644	Surface coating for smooth surfaced and mineral surfaced roofs.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
EnergyGuard™, EnergyGuard™ RN , EnergyGuard™ RA	Polyisocyanurate foam insulation	GAF Materials Corp.
EnergyGuard™ Composite EnergyGuard™ Composite RA EnergyGuard™ Composite RN	Polyisocyanurate foam insulation with high density fiberboard or Permalite perlite insulation.	GAF Materials Corp.
EnergyGuard™ Fiberboard	Fiberboard insulation.	GAF Materials Corp.
EnergyGuard™ Perlite	Perlite insulation board.	GAF Materials Corp.
EnergyGuard™ CANT™	Cut perlite board	GAF Materials Corp.
EnergyGuard™ Perlite Recover Board	Perlite recover board	GAF Materials Corp.
EnergyGuard™ Tapered Edge Strip	Tapered perlite board	GAF Materials Corp.
Dens Deck® Dens Deck Prime® Dens Deck DuraGuard®	Water resistant gypsum board	BMCA
Structodek® TD	Flame Resistant High Density Wood Fiber board.	Knight-Celotex
Structodek®	Insulation board	Knight-Celotex
SECUROCK®	Fiber reinforced roof board	Gypsum board

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Drill-Tec™ II NTB	Glass reinforced Nylon insulation fastener for gypsum & CWF decks with barbs.		BMCA
2.	Drill-Tec™ NTB Plate	Galvalume stress plate	3" round	BMCA
3.	Drill-Tec™ CR 1.2 Base Sheet Fastener	Base sheet fastening only		BMCA
4.	Drill-Tec™ Locking Impact Nail	Base Sheet fastener for lightweight concrete, gypsum & tectum decks.	Fastener: Various lengths Plate: 2.7" diameter	BMCA

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Description	Date
Factory Mutual Research Corp.	FMRC 1996	4470	01.01.96
	2B8A4.AM	4470	07.02.97
	3B9Q1.AM	4470	01.08.98
	0D0A8.AM	4470	07.09.99
	0Y9Q5.AM	4470	04.01.98
Underwriters Laboratories, Inc.	R1306, 00NK07638	UL 790	07.17.00
IRT-ARCON, Inc.	02-026	TAS 114	07.26.02
Exterior Research & Design, LLC	4670.03.01-1	TAS 117	09.20.01

APPROVED ASSEMBLIES

Membrane Type: SBS Heat Weld

Deck Type 6I: Cementitious Wood Fiber

Deck Description: Cementitious Wood Fiber

System Type A(1): Anchor sheet mechanically fastened; 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.

(Optional) Base Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ PolyIso **Minimum 1" thick**	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Dens Deck® **Minimum 1/4" thick**	**N/A**	**N/A**

Note: All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. GAF requires either a ply of GAFGLAS® STRATAVENT® Eliminator™ Perforated laid dry or a layer of EnergyGuard™ Perlite or wood fiber overlay board on polyisocyanurate insulation applications.

Anchor sheet: One ply of GAFGLAS® STRATAVENT® Eliminator™ Nailable, or GAFGLAS® #75, GAFGLAS® #80 ULTIMA™ Base Sheet, RUBEROID® Mop Smooth, RUBEROID® 20, RUBEROID® HW 25, RUBEROID® HW Smooth mechanically fastened with Drill Tec™ Locking Impact Nail at a 3" side lap 9" o.c. and in two rows staggered in the center of the sheet 12" o.c.

Base Sheet: One or more plies of RUBEROID® HW 25 or RUBEROID® HW Smooth, adhered to the insulation in a full mopping of an approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See General Limitation #4)

Membrane: One or more plies of RUBEROID® SBS Heat-Weld™ PLUS, RUBEROID® SBS Heat-Weld™ PLUS FR, RUBEROID® SBS Heat-Weld™ 170 FR, RUBEROID® EnergyCap SBS Heat-Weld™ PLUS FR, RUBEROID® SBS Heat-Weld™, RUBEROID® SBS Heat-Weld™ Smooth, and RUBEROID® SBS Heat-Weld™ 25 applied according to manufactures instructions.

Surfacing: (Optional, required if RUBEROID® Mop Smooth, RUBEROID® 20, RUBEROID® SBS Heat-Weld™ 25 or RUBEROID® SBS Heat-Weld™ Smooth is top membrane)

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq. or applied in a flood coat of Leak Buster™ Matrix™ 103 Cold Process Adhesive applied at a rate of 3 gal./sq.
2. GAFGLAS® Mineral Surfaced Cap Sheet, GAFGLAS® EnergyCap™ Mineral Surfaced Capsheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Leak Buster™ Matrix™ 303 Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq.
4. Leak Buster™ Matrix™ 715, Leak Buster™ Matrix™ 322, TOPCOAT® MB Plus, TOPCOAT® Fireshield Elastomeric Roofing Membrane, applied at 1 to 1.5 gal./sq.
5. Leak Buster™ Matrix™ 602 MB Xtra Elastomeric Roofing Membrane, EnergyCote™ roof coating applied at 1 to 1.5 gal./sq.
6. TOPCOAT® Surface Seal, TOPCOAT® Fireshield® SB Solvent based Elastomeric Roofing Membrane applied at 1to 1.5 gal./sq.
7. Advance Green Technologies Photovoltaic Laminate solar energy collector auxiliary roof equipment installed in compliance with manufacturer's specifications and applicable Building Codes.

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

Membrane Type: APP/SBS Heat Weld

Deck Type 6I: Cementitious Wood Fiber

Deck Description: Cementitious Wood Fiber

System Type A(2): Anchor sheet mechanically fastened; 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
EnergyGuard™ RA Minimum 1.2" thick	**N/A**	**N/A**
EnergyGuard™ PolyIso, EnergyGuard™ RA, RN, Ultra Minimum 1.3" thick	**N/A**	**N/A**
EnergyGuard, EnergyGuard™ Composite, EnergyGuard™ RA, EnergyGuard™ RN Minimum 1.4" thick	**N/A**	**N/A**
EnergyGuard™ Composite, EnergyGuard™ RA, RA Minimum 1.5" thick	**N/A**	**N/A**
EnergyGuard™ RA, EnergyGuard™ PolyIso Minimum 1.75" thick	**N/A**	**N/A**
Structodek®, Structodek® TD, EnergyGuard™ Fiberboard, EnergyGuard™ Recover Board, Gypsum Board, EnergyGuard™ Perlite 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. GAF requires either a ply of GAFGLAS® STRATAVENT® Eliminator™ Perforated laid dry or a layer of EnergyGuard™ Perlite or wood fiber overlay board on polyisocyanurate insulation applications.

Anchor sheet: One ply of GAFGLAS® STRATAVENT® Eliminator™ Nailable, or GAFGLAS® #75, GAFGLAS® #80 ULTIMA™ Base Sheet, RUBEROID® Mop Smooth, RUBEROID® 20, RUBEROID® HW 25, RUBEROID® HW Smooth mechanically fastened with Drill Tec™ Locking Impact Nail at a 3" side lap 9" o.c. and in two rows staggered in the center of the sheet 12" o.c.

Base Sheet: One or more plies of GAFGLAS® Ply 4, STRATAVENT® Eliminator™ Perforated laid dry, GAFGLAS® FlexPly™6 or GAFGLAS® #75, GAFGLAS® #80 ULTIMA™ Base Sheet, RUBEROID® Mop Smooth, RUBEROID® 20, RUBEROID® Modified Base Sheet adhered to the insulation in a full mopping of an approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See General Limitation #4)

Ply Sheet:	(Optional, Required over STRATAVENT® Eliminator™ Perforated) One or more plies of GAFGLAS® PLY 4, GAFGLAS® FlexPly™ 6, GAFGLAS® #80 ULTIMA sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Membrane:	One or more plies of RUBEROID® Torch Smooth, RUBEROID® Torch Granule, Roof Match™ APP Torch Granule, RUBEROID® Torch Plus Granule, RUBEROID® EnergyCap SBS Torch Plus FR or RUBEROID® Torch FR or RUBEROID® EnergyCap SBS Torch Granule FR torch applied according to manufacturer's application instructions Or One or more plies of RUBEROID® SBS Heat-Weld™ PLUS, RUBEROID® SBS Heat-Weld™ PLUS FR, RUBEROID® SBS Heat-Weld™ 170 FR, RUBEROID® EnergyCap SBS Heat-Weld™ PLUS FR, RUBEROID® SBS Heat-Weld™, RUBEROID® SBS Heat-Weld™ Smooth, RUBEROID® ULTRACLAD® SBS and RUBEROID® SBS Heat-Weld™ 25 applied according to manufacturer's application instructions.
Surfacing:	(Optional, required if RUBEROID® Mop Smooth, RUBEROID® 20, RUBEROID® SBS Heat-Weld™ 25 or RUBEROID® SBS Heat-Weld™ Smooth is top membrane)

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq. or applied in a flood coat of Leak Buster™ Matrix™ 103 Cold Process Adhesive applied at a rate of 3 gal./sq.
2. GAFGLAS® Mineral Surfaced Cap Sheet, GAFGLAS® EnergyCap™ Mineral Surfaced Capsheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Leak Buster™ Matrix™ 303 Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq.
4. Leak Buster™ Matrix™ 715, Leak Buster™ Matrix™ 322, TOPCOAT® MB Plus, TOPCOAT® Fireshield Elastomeric Roofing Membrane, applied at 1 to 1.5 gal./sq.
5. Leak Buster™ Matrix™ 602 MB Xtra Elastomeric Roofing Membrane, EnergyCote™ roof coating applied at 1 to 1.5 gal./sq.
6. TOPCOAT® Surface Seal, TOPCOAT® Fireshield® SB Solvent based Elastomeric Roofing Membrane applied at 1to 1.5 gal./sq.
7. Advance Green Technologies Photovoltaic Laminate solar energy collector auxiliary roof equipment installed in compliance with manufacturer's specifications and applicable Building Codes.

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

Membrane Type: SBS/SBS Cold Applied

Deck Type 6I: Cementitious Wood Fiber, Insulated

Deck Description: Cementitious Wood Fiber

System Type A(3): Anchor sheet mechanically fastened; 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.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
EnergyGuard™ RA Minimum 1.2" thick	**N/A**	**N/A**
EnergyGuard™ PolyIso, EnergyGuard™ RA Minimum 1.3" thick	**N/A**	**N/A**
EnergyGuard™, EnergyGuard™ RN, EnergyGuard™ Composite Minimum 1.4" thick	**N/A**	**N/A**
EnergyGuard™ RA, EnergyGuard™ Composite, EnergyGuard™ Composite RA, RN Minimum 1.5" thick	**N/A**	**N/A**
EnergyGuard™ RA Minimum 1.75" thick	**N/A**	**N/A**
Gypsum Board, EnergyGuard™ Fiberboard, Structodek®, Structodek® TD, EnergyGuard™ Recover Board, EnergyGuard™ Perlite Minimum ½" thick	**N/A**	**N/A**
Base or Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Dens Deck®, Dens Deck Prime® DensDeck DuraGuard™, Securock™ Minimum ¼" thick	**N/A**	**N/A**
Structodek®, Structodek® TD, EnergyGuard™ Fiberboard, EnergyGuard™ Recover Board, EnergyGuard™ Perlite 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. GAF requires either a ply of GAFGLAS® STRATAVENT® Eliminator™ Perforated laid dry or a layer of EnergyGuard™ Perlite or wood fiber overlay board on polyisocyanurate insulation applications.

Anchor sheet:	One ply of GAFGLAS® STRATAVENT® Eliminator™ Nailable, or GAFGLAS® #75, GAFGLAS® #80 ULTIMA™ Base Sheet, RUBEROID® Mop Smooth, RUBEROID® 20, RUBEROID® HW 25, RUBEROID® HW Smooth mechanically fastened with Drill Tec™ Locking Impact Nail at a 3" side lap 9" o.c. and in two rows staggered in the center of the sheet 12" o.c.
Base Sheet:	One ply of STRATAVENT® Eliminator™ Perforated laid dry or GAFGLAS® #75, GAFGLAS® #80 ULTIMA™ Base Sheet, RUBEROID® Mop Smooth, RUBEROID® 20, RUBEROID® HW 25, RUBEROID® HW Smooth, RUBEROID® Modified Base Sheet or RUBEROID® 20 adhered to the insulation in a full mopping of an approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See General Limitation #4).
Ply Sheet:	(Optional), one or more plies of GAFGLAS® PLY 4, GAFGLAS® FlexPly™ 6, GAFGLAS® #80 ULTIMA™, RUBEROID® MOP Smooth or RUBEROID® 20 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Membrane:	One or more plies of RUBEROID® MOP Smooth, RUBEROID® Mop 170 FR, RUBEROID® Mop Granule, Roof Match™ SBS Granule, RUBEROID® Mop Plus Granule, RUBEROID®20, RUBEROID®30, RUBEROID® EnergyCap SBS 30 FR, RUBEROID®30 FR or RUBEROID® Mop FR, RUBEROID® Dual FR or RUBEROID® ULTRACLAD® SBS in adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. Or, One or more plies of RUBEROID® MOP Smooth, RUBEROID® Mop Granule, Roof Match™ SBS Granule RUBEROID® Mop 170 FR, RUBEROID® Mop Plus Granule, RUBEROID® 30, RUBEROID® EnergyCap SBS 30 FR, RUBEROID® 30 FR, RUBEROID® Mop FR or RUBEROID® Dual FR in at an LeakBuster™ Matrix™ 102 SBS Adhesive application rate of 1-2 gal./sq.

Surfacing: (Optional, required if RUBEROID® Mop Smooth, RUBEROID® 20, RUBEROID® SBS Heat-Weld™ 25 or RUBEROID® SBS Heat-Weld™ Smooth is top membrane)

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq. or applied in a flood coat of Leak Buster™ Matrix™ 103 Cold Process Adhesive applied at a rate of 3 gal./sq.
2. GAFGLAS® Mineral Surfaced Cap Sheet, GAFGLAS® EnergyCap™ Mineral Surfaced Capsheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Leak Buster™ Matrix™ 303 Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq.
4. Leak Buster™ Matrix™ 715, Leak Buster™ Matrix™ 322, TOPCOAT® MB Plus, TOPCOAT® Fireshield Elastomeric Roofing Membrane, applied at 1 to 1.5 gal./sq.
5. Leak Buster™ Matrix™ 602 MB Xtra Elastomeric Roofing Membrane, EnergyCote™ roof coating applied at 1 to 1.5 gal./sq.
6. TOPCOAT® Surface Seal, TOPCOAT® Fireshield® SB Solvent based Elastomeric Roofing Membrane applied at 1to 1.5 gal./sq.
7. Advance Green Technologies Photovoltaic Laminate solar energy collector auxiliary roof equipment installed in compliance with manufacturer's specifications and applicable Building Codes.

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

Membrane Type: APP/SBS Heat Weld

Deck Type 5: Cementitious Wood Fiber, Non-Insulated

Deck Description: Cementitious Wood fiber

System Type E(1): Anchor sheet mechanically fastened

All General and System Limitations shall apply.

Anchor Sheet: Install one ply of GAFGLAS® #75, GAFGLAS® #80 ULTIMA™ Base Sheet, GAFGLAS® STRATAVENT® Eliminator™ Nailable, RUBEROID® MOP Smooth, RUBEROID® 20, RUBEROID® Modified Base Sheet, RUBEROID® SBS Heat-Weld™ Smooth or RUBEROID® SBS Heat-Weld 25 base sheet mechanically fastened with 1.8" Drill Tec™ Locking Impact Nail fastened at 9" o.c. at the 3" side lap and in two 12" o.c. staggered rows in the field.

Ply Sheet: (Optional) One or more plies of GAFGLAS® Ply 4, GAFGLAS® Flex Ply™ 6 or GAFGLAS® #80 ULTIMA™ 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, Roof Match™ APP Torch Granule, RUBEROID® Torch Plus Granule RUBEROID® EnergyCap Torch Granule FR or RUBEROID® Torch FR torch applied according to manufacturer's application instructions.
Or,
One or more plies of RUBEROID® SBS Heat-Weld™ Smooth, RUBEROID® SBS Heat-Weld™ FR, RUBEROID® SBS Heat-Weld™ Plus FR, RUBEROID® EnergyCap SBS Heat-Weld™ PLUS FR, RUBEROID® SBS Heat-Weld™ 25, RUBEROID® SBS Heat-Weld™ Granule, RUBEROID® SBS Heat-Weld™ 170 FR, RUBEROID® SBS Heat-Weld™ Plus Granule, RUBEROID® ULTRACLAD® SBS applied according to manufacturer's application instructions.

Surfacing: (Optional, required if RUBEROID® Mop Smooth, RUBEROID® 20, RUBEROID® SBS Heat-Weld™ 25 or RUBEROID® SBS Heat-Weld™ Smooth is top membrane)

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq. or applied in a flood coat of Leak Buster™ Matrix™ 103 Cold Process Adhesive applied at a rate of 3 gal./sq.
2. GAFGLAS® Mineral Surfaced Cap Sheet, GAFGLAS® EnergyCap™ Mineral Surfaced Capsheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Leak Buster™ Matrix™ 303 Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq.
4. Leak Buster™ Matrix™ 715, Leak Buster™ Matrix™ 322, TOPCOAT® MB Plus, TOPCOAT® Fireshield Elastomeric Roofing Membrane, applied at 1 to 1.5 gal./sq.
5. Leak Buster™ Matrix™ 602 MB Xtra Elastomeric Roofing Membrane, EnergyCote™ roof coating applied at 1 to 1.5 gal./sq.
6. TOPCOAT® Surface Seal, TOPCOAT® Fireshield® SB Solvent based Elastomeric Roofing Membrane applied at 1to 1.5 gal./sq.
7. Advance Green Technologies Photovoltaic Laminate solar energy collector auxiliary roof equipment installed in compliance with manufacturer's specifications and applicable Building Codes.

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

Membrane: SBS/SBS Cold Applied

Deck Type 5: Cementitious Wood Fiber, Non-Insulated

Deck Description: Cementitious wood fiber

System Type E(2): Anchor sheet mechanically fastened

All General and System Limitations shall apply.

Anchor Sheet: Install one ply of GAFGLAS® #75, GAFGLAS® #80 ULTIMA™ Base Sheet, GAFGLAS® STRATAVENT® Eliminator™ Nailable, RUBEROID® MOP Smooth, RUBEROID® 20, RUBEROID® Modified Base Sheet, RUBEROID® SBS Heat-Weld™ Smooth or RUBEROID® SBS Heat-Weld 25 base sheet mechanically fastened with 1.8" Drill Tec™ Locking Impact Nail fastened at 9" o.c. at the 3" side lap and in two 12" o.c. staggered rows in the field.

Ply Sheet: (Optional) One or more plies of GAFGLAS® Ply 4, GAFGLAS® Flex Ply™ 6, GAFGLAS® #80 ULTIMA 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.

Membrane: One or more plies of RUBEROID® MOP Smooth, RUBEROID® Mop 170 FR, RUBEROID® Mop Granule, Roof Match™ SBS Granule RUBEROID® Mop Plus Granule, RUBEROID® 20, RUBEROID® 30, RUBEROID® EnergyCap SBS 30 FR, RUBEROID® 30 FR, RUBEROID® Mop FR, RUBEROID® Dual FR or RUBEROID® ULTRACLAD® SBS in adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Or,
One or more plies of RUBEROID® MOP Smooth, RUBEROID® Mop Granule, Roof Match™ SBS Granule RUBEROID® Mop 170 FR, RUBEROID® Mop Plus Granule, RUBEROID® 30, RUBEROID® EnergyCap SBS 30 FR, RUBEROID® 30 FR, RUBEROID® Mop FR or RUBEROID® Dual FR in LeakBuster™ Matrix™ 102 SBS Adhesive at an application rate of 1-2 gal./sq.

Surfacing: (Optional, required if RUBEROID® Mop Smooth, RUBEROID® 20, RUBEROID® SBS Heat-Weld™ 25 or RUBEROID® SBS Heat-Weld™ Smooth is top membrane)

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq. or applied in a flood coat of Leak Buster™ Matrix™ 103 Cold Process Adhesive applied at a rate of 3 gal./sq.
2. GAFGLAS® Mineral Surfaced Cap Sheet, GAFGLAS® EnergyCap™ Mineral Surfaced Capsheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Leak Buster™ Matrix™ 303 Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq.
4. Leak Buster™ Matrix™ 715, Leak Buster™ Matrix™ 322, TOPCOAT® MB Plus, TOPCOAT® Fireshield Elastomeric Roofing Membrane, applied at 1 to 1.5 gal./sq.
5. Leak Buster™ Matrix™ 602 MB Xtra Elastomeric Roofing Membrane, EnergyCote™ roof coating applied at 1 to 1.5 gal./sq.
6. TOPCOAT® Surface Seal, TOPCOAT® Fireshield® SB Solvent based Elastomeric Roofing Membrane applied at 1to 1.5 gal./sq.
7. Advance Green Technologies Photovoltaic Laminate solar energy collector auxiliary roof equipment installed in compliance with manufacturer's specifications and applicable Building Codes.

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

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 9B-72 of the Florida Administrative Code.

END OF THIS ACCEPTANCE