

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

#### 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 Conventional Built-Up-Roof Systems over 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. 13-1022.13 consists of pages 1 through 28. The submitted documentation was reviewed by Jorge L. Acebo.

MIAMI-DADE COUNTY APPROVED MIAMI-DADE COUNTY PRODUCT CONTROL SECTION 11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786)315-2590 F (786) 315-2599 www.miamidade.gov/economy

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#### **ROOFING SYSTEM APPROVAL**

Category:	Roofing
Sub-Category:	BUR
Material:	Fiberglass
<u>Deck Type:</u>	Recover
Maximum Design Pressure:	See Specific deck type

### TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

<b>Product</b>	<b>Dimensions</b>	Test <u>Specification</u>	Product <u>Description</u>
GAFGLAS <sup>®</sup> Ply 4	39.37" (1 meter) Wide	ASTM D2178	Smooth surfaced asphaltic ply sheet reinforced with fiberglass mat.
Tri-Ply <sup>®</sup> Ply 4	39.37" (1 meter) Wide	ASTM D2178	Smooth surfaced asphaltic ply sheet reinforced with fiberglass mat.
GAFGLAS <sup>®</sup> FlexPly <sup>™</sup> 6	39.37" (1 meter) Wide	ASTM D2178	Smooth surfaced asphaltic ply sheet reinforced with fiberglass mat.
GAFGLAS <sup>®</sup> #75 Base Sheet	39.37" (1 meter) Wide	ASTM D4601	Smooth asphaltic base or base/ply sheet reinforced with fiberglass mat.
Tri-Ply <sup>®</sup> #75 Base Sheet	39.37" (1 meter) Wide	ASTM D4601	Smooth asphaltic base or base/ply sheet reinforced with fiberglass mat.
GAFGLAS <sup>®</sup> #80 Ultima <sup>™</sup> Base Sheet	39.37" (1 meter) Wide	ASTM D4601	Smooth asphaltic base or base/ply sheet reinforced with fiberglass mat.
GAFGLAS <sup>®</sup> Stratavent <sup>®</sup> Perforated Venting Base Sheet	39.37" (1 meter) Wide	ASTM D4897	Smooth surfaced asphaltic perforated venting base sheet reinforced with fiberglass mat.
GAFGLAS <sup>®</sup> Stratavent <sup>®</sup> Nailable Venting Base Sheet	39.37" (1 meter) Wide	ASTM D4897	Smooth surfaced asphaltic nailable venting base sheet reinforced with fiberglass mat. Bottom side surfaced with granules.
GAFGLAS <sup>®</sup> Mineral Surfaced Cap Sheet	39.37" (1 meter) Wide	ASTM D3909	Granule surfaced asphaltic cap sheet reinforced with fiberglass mat.
Tri-Ply <sup>®</sup> BUR Granule Cap Sheet	39.37" (1 meter) Wide	ASTM D3909	Granule surfaced asphaltic cap sheet reinforced with fiberglass mat.
GAFGLAS <sup>®</sup> EnergyCap <sup>™</sup> Mineral Surfaced Cap Sheet	39.37" (1 meter) Wide	ASTM D3909	Granule surfaced asphaltic cap sheet reinforced with fiberglass mat. Cap sheet is factory coated with TOPCOAT <sup>®</sup> EnergyCote <sup>™</sup> Elastomeric Coating.
Ruberoid <sup>®</sup> 20 Smooth	39.37" (1 meter) Wide	ASTM D6163	SBS polymer-modified asphalt base or ply sheet reinforced with a fiberglass mat.

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# TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

<b>Product</b>	<b>Dimensions</b>	Test <u>Specification</u>	Product <u>Description</u>
Ruberoid <sup>®</sup> Mop Smooth	39.37" (1 meter) Wide	ASTM D6164	Smooth surfaced mop applied SBS base or ply sheet reinforced with a polyester mat.
Ruberoid <sup>®</sup> Mop Smooth 1.5	39.37" (1 meter) Wide	ASTM D6164	Smooth surfaced mop applied SBS base or ply sheet reinforced with a polyester mat.
Ruberoid <sup>®</sup> Mop Plus Smooth	39.37" (1 meter) Wide	ASTM D6164	Smooth surfaced mop applied SBS base or ply sheet reinforced with a polyester mat.
Topcoat <sup>®</sup> Surface Seal SB	5 or 55 Gallons	ASTM D6083	Solvent-based thermoplastic rubber sealant designed to protect and restore aged roof surfaces and to increase roof reflectivity.
Topcoat <sup>®</sup> Membrane	1, 5 or 55 Gallons	ASTM D6083	Water-based elastomeric coating.
Topcoat <sup>®</sup> MB Plus	5 or 55 Gallons	Proprietary	Water based, low VOC primer designed to block asphalt bleed-through.
Topcoat <sup>®</sup> FlexSeal <sup>™</sup>	1, 5 gallons or 1 qt. tube	TAS 139	Solvent-based elastomeric sealant.



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#### **APPROVED INSULATIONS:**

## TABLE 2

<u>Product Name</u>	<b>Product Description</b>	<u>Manufacturer</u> (With Current NOA)
EnergyGuard <sup>™</sup> Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard <sup>™</sup> Tapered Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard <sup>™</sup> Ultra Polyiso Insulation	Glass-faced polyisocyanurate foam insulation	GAF
EnergyGuard <sup>™</sup> HD Polyiso Insulation	High density polyisocyanurate foam insulation	GAF
EnergyGuard <sup>™</sup> HD Plus Polyiso Insulation	High density polyisocyanurate foam insulation	GAF
EnergyGuard <sup>™</sup> RH HD Polyiso Insulation	High density polyisocyanurate foam insulation	GAF
EnergyGuard <sup>™</sup> RH Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard <sup>™</sup> RH Tapered Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard <sup>™</sup> Perlite Roof Insulation	Perlite insulation board	GAF
EnergyGuard <sup>™</sup> Perlite Recover Board	Perlite recover board	GAF
Securock <sup>®</sup> Gypsum-Fiber Roof Board	Gypsum board	USG Corporation
Securock <sup>®</sup> Glass-Mat Roof Board	Glass-faced gypsum board	USG Corporation
DensDeck <sup>®</sup> Roof Board	Gypsum board	Georgia-Pacific Gypsum LLC
DensDeck <sup>®</sup> Prime <sup>®</sup> Roof Board	Gypsum board	Georgia-Pacific Gypsum LLC
Structodek <sup>®</sup> High Density Fiber Board	High density fiberboard	Blue Ridge FiberBoard, Inc.

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#### **APPROVED FASTENERS:**

#### TABLE 3

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

# **EVIDENCE SUBMITTED:**

Test Agency	<u>Test Identifier</u>	<b>Description</b>	<b>Date</b>
Factory Mutual Research Corp.	2B8A4.AM	FM 4470	07/02/97
	3B9Q1.AM	FM 4470	01/08/98
	0D0A8.AM	FM 4470	07/09/99
	0Y9Q5.AM	FM 4470	04/01/98
	3017250	FM 4470	05/05/04
	3025524	FM 4470	03/13/06
	3036980	FM 4470	08/14/09
	3041005	FM 4470	03/31/11
	3046081	FM 4470	02/13/13
	3046388	FM 4470	09/24/12
Trinity ERD	G6850.08.07-1	ASTM D3909	08/13/07
	G30250.02.10-3-R2	ASTM D3909	06/03/15
	G31360.03.10	ASTM D6164	03/31/10
	G33470.01.11	ASTM D6164	01/13/11
	G34140.04.11-2	ASTM D6163	04/25/11
	G34140.04.11-4-R2	ASTM D4601	06/04/15
	G34140.04.11-5-R3	ASTM D4897	06/04/15
	G40630.01.14-1	ASTM D6163	01/06/14
	G40630.01.14-2A-1-R1	ASTM D6164	01/07/14
	G43610.01.14	ASTM D5147/D4798	3 01/22/14
Underwriters Laboratories, Inc.	R1306	UL 790	07/22/13
PRI Construction Materials	GAF-082-02-01	<b>ASTM D6083</b>	05/09/06
Technologies LLC	GAF-314-02-01	ASTM D2178	08/23/11
	GAF-315-02-01	ASTM D2178	08/23/11
	GAF-369-02-01	ASTM C129/D1622	05/02/13
	GAF-409-02-01	ASTM C129/D1622	05/28/13
	GAF-411-02-01	ASTM C129/D1622	05/02/13
	GAF-434-02-01	ASTM D1876	09/16/13
	GAF-464-02-01	ASTM C129/D1622	02/06/14
	GAF-499-02-01	ASTM D6083	03/12/14
	GAF-500-02-01	ASTM D6083	03/12/14
	GAF-549-02-02	TAS-114	08/08/14
	GAF-559-02-01	TAS-117	10/16/14
	GAF-559-02-04	ASTM D1876	10/16/14
	GAF-559-02-05	ASTM D1876	10/16/14
	GAF-559-02-06	TAS-114	10/16/14
	GAF-559-02-07	ASTM D903	10/16/14
	GAF-559-02-08	ASTM D903	10/16/14
	GAF-559-02-09	ASTM D903	10/16/14
	GAF-559-02-12	TAS-114	10/16/14
	GAF-559-02-13	TAS-114	10/16/14
	GAF-559-02-14	TAS-114	10/16/14
	GAF-559-02-15	TAS-114	10/16/14
	GAF-559-02-18	TAS-114	10/16/14
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# **DECK STRESS ANALYSIS CALCULATIONS/REPORTS**

<b>Engineer/Agency</b>	<u>Identifier</u>	Assemblies	<b>Date</b>
FM Approval Deck Limitation	N/A	C(1), D(1), D(3), E(2)	01/01/13

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#### **APPROVED ASSEMBLIES:**

Membrane Type:	BUR	
Deck Type 7I:	Recover, Insulated	
<b>Deck Description:</b>	Structural Concrete	
System Type A(1):	All insulation layers are adhered, to existing Smooth or Granule Surfaced BUR or Modified roof cover. Membrane is subsequently fully or partially adhered to insulation.	
All General and Sys	tem Limitations apply.	
Base Insulation Lay	rer Insulation Fasteners Fastener (Table 3) Density/ft <sup>2</sup>	

EnergyGuard<sup>™</sup> Polyiso Insulation, EnergyGuard<sup>™</sup> Tapered Polyiso Insulation Minimum 0.5" thick N/A N/A

Note: Base Insulation Layer is adhered to an existing asphaltic roof deck primed with ASTM D41 or Matrix 307 Premium Asphalt Primer applied at 0.75 gal./sq. (0.3 – 0.4 l/m2). The insulation is adhered with hot asphalt applied within the EVT range and at a rate of 20-25 lbs./sq. and walked in. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
Structodek <sup>®</sup> High Density Fiberboard, EnergyGuard <sup>™</sup> Perlite Reco	over Board	·
Minimum 0.5" thick	N/A	N/A
EnergyGuard <sup>™</sup> Perlite Roof Insulation Minimum 0.75" thick	N/A	N/A
Securock <sup>®</sup> Gypsum-Fiber Roof Board, DensDeck <sup>®</sup> Roof Board, DensDeck <sup>®</sup> DuraGuard <sup>®</sup> Roof Board, DensDeck <sup>®</sup> Prime <sup>®</sup> Roof Boa Minimum 0.25" thick	rd N/A	N/A
	11/2	$1 \mathbf{V} \mathbf{A}$

Note: Top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs./100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: (Optional)	One or more plies of GAFGLAS <sup>®</sup> #75 Base Sheet, Tri-Ply <sup>®</sup> #75 Base Sheet, GAFGLAS <sup>®</sup> #80 Ultima Base Sheet adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. in accordance with manufacturer's instructions.
Ply Sheet:	Two or more plies of GAFGLAS <sup>®</sup> Ply 4, Tri-Ply <sup>®</sup> Ply 4 or GAFGLAS <sup>®</sup> FlexPly <sup>™</sup> 6 adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. in accordance with manufacturer's instructions.
Cap Sheet:	One ply of GAFGLAS <sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply <sup>®</sup> BUR Granule Cap Sheet or GAFGLAS <sup>®</sup> EnergyCap <sup>™</sup> 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. in accordance with manufacturer's instructions.

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Surfacing:	Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied in accordance with manufacturer's instructions. All coatings must be listed within a current NOA.
1.	Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2.	Topcoat <sup>®</sup> Membrane, Topcoat <sup>®</sup> MB Plus (to be used as a primer with Topcoat <sup>®</sup> Membrane) or Topcoat <sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq.
3.	Fibered Aluminum Roof Coating applied accordance with manufacturer's instructions.
Maximum Design	
Pressure:	-150 psf. (See General Limitation #9)



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Modified roof

All General and System Limitations apply.

Insulation Layer	Insulation Fasteners	Fastener Density/ft <sup>2</sup>
	(Table 3)	
<b>EnergyGuard<sup>™</sup> Polyiso Insulation, EnergyGuard<sup>™</sup> Tapere</b>	ed Polyiso Insulation	
Minimum 0.5" thick	N/A	N/A

Note: Insulation Layer is adhered to an existing asphaltic roof deck primed with ASTM D41 or Matrix 307 Premium Asphalt Primer applied at 0.75 gal./sq. (0.3 - 0.4 l/m2). The insulation is adhered with hot asphalt applied within the EVT range and at a rate of 20-25 lbs./sq. and walked in. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: (Optional)	GAFGLAS® Stratavent® Perforated Venting Base Sheet, loose laid dry.
Ply Sheet:	Two or more plies of GAFGLAS <sup>®</sup> Ply 4, Tri-Ply <sup>®</sup> Ply 4 or GAFGLAS <sup>®</sup> FlexPly <sup>™</sup> 6 adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. in accordance with manufacturer's instructions.
Cap Sheet: (Optional)	One ply of GAFGLAS <sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply <sup>®</sup> BUR Granule Cap Sheet or GAFGLAS <sup>®</sup> EnergyCap <sup>™</sup> 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. in accordance with manufacturer's instructions.
Surfacing:	Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied in accordance with manufacturer's instructions. All coatings must be listed within a current NOA.
1.	Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2.	Topcoat <sup>®</sup> Membrane, Topcoat <sup>®</sup> MB Plus (to be used as a primer with Topcoat <sup>®</sup> Membrane) or Topcoat <sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq.
3.	Fibered Aluminum Roof Coating applied accordance with manufacturer's instructions.
Maximum Design Pressure:	-150 psf. (See General Limitation #9)



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Membrane Type:	BUR		
Deck Type 7I:	Recover, Insulated		
Deck Description:	Min. 15/32" thick plywood secured 6 in. o.c. at panel end and intermediate supports with 8d ring shank nails to lumber roof joists spaced 24 in. o.c. at max. The fasteners must demonstrate a minimum characteristic resistance force (MCRF) of 73 lbs. per TAS 105 from the roof deck.		
System Type A(3):	All insulation layers are adhered to a mechan Membrane is subsequently fully or partially		chor sheet.
All General and System	n Limitations apply.		
Anchor sheet:	GAFGLAS <sup>®</sup> #75 Base Sheet, Tri-Ply <sup>®</sup> #75 Base Sheet, Ruberoid <sup>®</sup> 20 Smooth or GAFGLAS <sup>®</sup> Stratavent <sup>®</sup> Nailable Venting Base Sheet is secured as described below.		
Fastening:	Drill-Tec <sup>™</sup> #14 Fasteners and Drill-Tec <sup>™</sup> 3 in. Standard Steel Plates, Drill-Tec <sup>™</sup> AccuTrac <sup>®</sup> Flat Plates, Drill-Tec <sup>™</sup> 3 in. Ribbed Galvalume Plates (Flat) or Drill-Tec <sup>™</sup> ASAP 3S are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows.		
One or more layers of any of the following insulations.Insulation FastenersFastenerBase Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²			
EnergyGuard <sup>™</sup> Polyiso Insulation, EnergyGuard <sup>™</sup> Tapered Polyiso Insulation, EnergyGuard <sup>™</sup> Ultra Polyiso Insulation, EnergyGuard <sup>™</sup> RH Polyiso Insulation, EnergyGuard <sup>™</sup> RH Tapered Polyiso Insulation			
Minimum 1" thick		N/A	N/A
<b>Top Insulation Layer</b>		Insulation Fasteners	Fastener
<b>EnergyGuard<sup>™</sup> Perlite</b>	Roof Insulation	(Table 3)	Density/ft <sup>2</sup>
Minimum <sup>3</sup> / <sub>4</sub> " thick		N/A	N/A

Structodek<sup>®</sup> High Density Fiber Board Minimum <sup>1</sup>/<sub>2</sub>" thick

Securock<sup>®</sup> Gypsum-Fiber Roof Board Minimum ¼" thick

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

N/A

N/A

Ply Sheet:	Two or more plies of GAFGLAS <sup>®</sup> Ply 4, Tri-Ply <sup>®</sup> Ply 4 or GAFGLAS <sup>®</sup> FlexPly <sup>™</sup> 6 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See General Limitation #4).
Cap Sheet: (Optional)	One ply of GAFGLAS <sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply <sup>®</sup> BUR Granule Cap Sheet or GAFGLAS <sup>®</sup> EnergyCap <sup>™</sup> 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. in accordance with manufacturer's instructions.

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N/A

N/A

Surfacing:	Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied in accordance with manufacturer's instructions. All coatings must be listed within a current NOA.
1.	Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2.	Topcoat <sup>®</sup> Membrane, Topcoat <sup>®</sup> MB Plus (to be used as a primer with Topcoat <sup>®</sup> Membrane) or Topcoat <sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq. (Not to be used with GAFGLAS <sup>®</sup> EnergyCap <sup>™</sup> Mineral Surfaced Cap Sheet).
3.	Aluminum Fibered Roof Coating applied accordance with manufacturer's instructions.
Maximum Design	
Pressure:	-75 psf. (See General Limitation #7)



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Membrane Type:	BUR	
Deck Type 7I:	Recover, Insulated	
Deck Description:	Min. 15/32" thick plywood secured 6 in. o.c. at panel end and intermediate supports with 8d ring shank nails to lumber roof joists spaced 24 in. o.c. at max. The fasteners must demonstrate a minimum characteristic resistance force (MCRF) of 81 lbs. per TAS 105 from the roof deck.	
System Type A(4):	All insulation layers are adhered to a mechanically attached or adhered anchor sheet. Membrane is subsequently fully or partially adhered to insulation.	
All General and System	n Limitations apply.	
Anchor sheet:	GAFGLAS <sup>®</sup> #75 Base Sheet, Tri-Ply <sup>®</sup> #75 Base Sheet, Ruberoid <sup>®</sup> 20 Smooth or GAFGLAS <sup>®</sup> Stratavent <sup>®</sup> Nailable Venting Base Sheet is secured as described below.	
Fastening:	Drill-Tec <sup>™</sup> #14 Fasteners and Drill-Tec <sup>™</sup> 3 in. Standard Steel Plates, Drill-Tec <sup>™</sup> AccuTrac <sup>®</sup> Flat Plates, Drill-Tec <sup>™</sup> 3 in. Ribbed Galvalume Plates (Flat) or Drill-Tec <sup>™</sup> ASAP 3S are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows.	
Insulation Layer	ny of the following insulations. Insulation Fasteners (Table 3) Density/ft <sup>2</sup>	
	Insulation, EnergyGuard <sup>™</sup> Tapered Polyiso Insulation, EnergyGuard <sup>™</sup> Ultra Polyiso rd <sup>™</sup> RH Polyiso Insulation, EnergyGuard <sup>™</sup> RH Tapered Polyiso Insulation	
Minimum 1" thick	N/A N/A N/A	
Note: All insulation shall be adhered in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft <sup>2</sup> . Please refer to Roofing Application Standard RAS 117 for insulation attachment.		
Base Sheet:	GAFGLAS <sup>®</sup> Stratavent <sup>®</sup> Perforated Venting Base Sheet is loosely-laid over the insulation with 2 in. side laps	
Ply Sheet:	Two or more plies of GAFGLAS <sup>®</sup> Ply 4, Tri-Ply <sup>®</sup> Ply 4 or GAFGLAS <sup>®</sup> FlexPly <sup>™</sup> 6 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See General Limitation #4).	
Cap Sheet: (Optional)	One ply of GAFGLAS <sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply <sup>®</sup> BUR Granule Cap Sheet or GAFGLAS <sup>®</sup> EnergyCap <sup>™</sup> 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. in accordance with

manufacturer's instructions.



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Surfacing:	Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied in accordance with manufacturer's instructions. All coatings must be listed within a current NOA.
1.	Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2.	Topcoat <sup>®</sup> Membrane, Topcoat <sup>®</sup> MB Plus (to be used as a primer with Topcoat <sup>®</sup> Membrane) or Topcoat <sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq. (Not to be used with GAFGLAS <sup>®</sup> EnergyCap <sup>™</sup> Mineral Surfaced Cap Sheet).
3.	Aluminum Fibered Roof Coating applied accordance with manufacturer's instructions.
Maximum Design	
Pressure:	-82.5 psf. (See General Limitation #7)



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Membrane Type:	BUR
Deck Type 7I:	Recover, Insulated
Deck Description:	Minimum 22 ga., type B, wide rib steel deck meeting the requirements of ASTM A653, Grade 33 was secured to 0.25 in. thick structural supports spaced at 72 in. o.c. using Teks 4, Teks 5, ICH Traxx/4, or ICH Traxx/5 screws spaced at 6 in. and with side laps secured with ICH Traxx/1 or Teks 1 screws spaced at 24 in. o.c. Or Structural concrete deck (minimum 2500 psi). This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.
System Type C(1)	All layers of insulation are mechanically attached to roof deck. Membrane is subsequently fully or partially adhered to insulation.

#### All General and System Limitations apply.

One or more layers of any of the following insulations. Insulation I aver

Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
Securock <sup>®</sup> Gypsum-Fiber Roof Board	1, 2, 4, 5, 6, 8	1.33
Minimum 3/8" thick		

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:	<ul> <li>One ply of GAFGLAS<sup>®</sup> Ply 4, Tri-Ply<sup>®</sup> Ply 4, GAFGLAS<sup>®</sup> FlexPly<sup>™</sup> 6, GAFGLAS<sup>®</sup> #75 Base Sheet, Tri-Ply<sup>®</sup> #75 Base Sheet, Ruberoid<sup>®</sup> 20 Smooth, Ruberoid<sup>®</sup> Mop Smooth, Ruberoid<sup>®</sup> Mop Smooth 1.5 or Ruberoid<sup>®</sup> Mop Plus Smooth adhered directly to the insulated substrate with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. in accordance with manufacturer's instructions.</li> <li>OR</li> <li>GAFGLAS<sup>®</sup> Stratavent<sup>®</sup> Perforated Venting Base Sheet, loose laid dry.</li> </ul>
Ply Sheet:	One or more plies of GAFGLAS <sup>®</sup> Ply 4, Tri-Ply <sup>®</sup> Ply 4 or GAFGLAS <sup>®</sup> FlexPly <sup>™</sup> 6 adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. in accordance with manufacturer's instructions.
Cap Sheet: (Optional)	One ply of GAFGLAS <sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply <sup>®</sup> BUR Granule Cap Sheet or GAFGLAS <sup>®</sup> EnergyCap <sup>™</sup> 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. in accordance with manufacturer's instructions.

Surfacing:	Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied in accordance with manufacturer's instructions. All coatings must be listed within a current NOA.
1.	Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2.	Topcoat <sup>®</sup> Membrane, Topcoat <sup>®</sup> MB Plus (to be used as a primer with Topcoat <sup>®</sup> Membrane) or Topcoat <sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq. (Not to be used with GAFGLAS <sup>®</sup> EnergyCap <sup>™</sup> Mineral Surfaced Cap Sheet).
3.	Aluminum Fibered Roof Coating applied accordance with manufacturer's instructions.
Maximum Design Pressure:	-60 psf. (See General Limitation #7)



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Membrane Type:	BUR
Deck Type 7I:	Recover, Insulated
Deck Description:	Min. 19/32" thick plywood secured 6 in. o.c. at panel end and intermediate supports with 8d ring shank nails to lumber roof joists spaced 24 in. o.c. at max. The fasteners must demonstrate a minimum characteristic resistance force (MCRF) of 213 lbs. per TAS 105 from the roof deck.
System Type C(2):	All layers of insulation are mechanically attached to roof deck. Membrane is subsequently fully or partially adhered to insulation.

#### All General and System Limitations apply.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
Securock <sup>®</sup> Gypsum-Fiber Roof Board	1, 2, 6, 8	1.78
Minimum 1/4" thick		

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 <sup>®</sup> Ply 4, Tri-Ply <sup>®</sup> Ply 4 or GAFGLAS <sup>®</sup> FlexPly <sup>™</sup> 6 adhered directly to the insulated substrate with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. in accordance with manufacturer's instructions. OR GAFGLAS <sup>®</sup> Stratavent <sup>®</sup> Perforated Venting Base Sheet, loose laid dry.
Ply Sheet:	One or more plies of GAFGLAS <sup>®</sup> Ply 4, Tri-Ply <sup>®</sup> Ply 4 or GAFGLAS <sup>®</sup> FlexPly <sup><math>TM</math></sup> 6 adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. in accordance with manufacturer's instructions.
Cap Sheet:	One ply of GAFGLAS <sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply <sup>®</sup> BUR Granule Cap Sheet or GAFGLAS <sup>®</sup> EnergyCap <sup>™</sup> 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. in accordance with manufacturer's instructions.
Surfacing:	Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied in accordance with manufacturer's instructions. All coatings must be listed within a current NOA.
1.	Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2.	Topcoat <sup>®</sup> Membrane, Topcoat <sup>®</sup> MB Plus (to be used as a primer with Topcoat <sup>®</sup> Membrane) or Topcoat <sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq. (Not to be used with GAFGLAS <sup>®</sup> EnergyCap <sup>™</sup> Mineral Surface Cap Sheet)
3.	Aluminum Fibered Roof Coating applied accordance with manufacturer's instructions.
Maximum Design	

Maximum Design Pressure:

-60 psf. (See General Limitation #7)



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Membrane Type:	BUR
Deck Type 7I:	Recover, Insulated
Deck Description:	Minimum 22 ga., type B, wide rib steel deck meeting the requirements of ASTM A653, Grade 33 was secured to 0.25 in. thick structural supports spaced at 72 in. o.c. using ICH Traxx/5 screws spaced at 6 in. and with side laps secured with ICH Traxx/1 screws spaced at 24 in. o.c Or Structural concrete deck (minimum 2500 psi). This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.
System Type D(1):	All insulation is loose laid with preliminary attachment to roof deck. Anchor sheet is subsequently mechanically fastened through insulation to roof deck.

#### All General and System Limitations apply.

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One or more layers of any of the following with a tota	l Maximum thickness of 1" on Steel	decks.	
Insulation Layer	<b>Insulation Fasteners</b>	Fastener Density ft <sup>2</sup>	
	(Table 3)		
Structodek <sup>®</sup> High Density Fiberboard Roof Insulat	tion, EnergyGuard <sup>™</sup> HD Polyiso In	sulation, EnergyGuard <sup>™</sup>	
HD Plus Polyiso Insulation, EnergyGuard <sup>™</sup> RH H	D Polyiso Insulation, EnergyGuar	d <sup>™</sup> Polyiso Insulation,	
EnergyGuard <sup>™</sup> Ultra Polyiso Insulation, EnergyGuard <sup>™</sup> Perlite Recover Board			
Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A	
EnergyGuard <sup>™</sup> Perlite Roof Insulation			
Minimum <sup>3</sup> / <sub>4</sub> " thick	N/A	N/A	
Dans Dack <sup>®</sup> Roof Roard Securock <sup>®</sup> Class-Mat Roo	f Roard Securock® Cynsum-Fiber	Roof Board	

DensDeck® Roof Board, Securock® Glass-Mat Roof Board, Securock® Gypsum-Fiber Roof Board Minimum ¼" thick N/A N/A

NOTE: Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Anchor Sheet:	Ruberoid <sup>®</sup> Mop Smooth 1.5 is secured through the insulation, existing roof cover and into the deck with Drill-Tec <sup>™</sup> #12 Fasteners (steel only), Drill-Tec <sup>™</sup> #14 Fasteners with Drill-Tec <sup>™</sup> 3" Steel Plates, Drill-Tec <sup>™</sup> 3" Standard Steel Plates, Drill-Tec <sup>™</sup> AccuTrac <sup>®</sup> Flat Plates, Drill-Tec <sup>™</sup> 4 AccuTrac <sup>®</sup> Flat Plates, Drill-Tec <sup>™</sup> 3 in. Ribbed Galvalume <sup>®</sup> Plates (Flat) or with the Drill-Tec <sup>™</sup> ASAP 3S. Fasteners are spaced 24" o.c. along the minimum 3" wide anchor sheet side laps and 24" o.c. in two staggered rows in the field of the sheet.
Ply Sheet:	Two or more plies of GAFGLAS <sup>®</sup> Ply 4, Tri-Ply <sup>®</sup> Ply 4 or GAFGLAS <sup>®</sup> FlexPly <sup>™</sup> 6 adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs. /sq. in accordance with manufacturer's application instructions.
Cap Sheet: (Optional)	One ply of GAFGLAS <sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply <sup>®</sup> BUR Granule Cap Sheet or GAFGLAS <sup>®</sup> EnergyCap <sup>™</sup> 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. in accordance with manufacturer's application instructions.

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Surfacing: (Optional)	Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied in accordance with manufacturer's instructions. All coatings must be listed within a current NOA.
1.	Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2.	Topcoat <sup>®</sup> Membrane, Topcoat <sup>®</sup> MB Plus (to be used as a primer with Topcoat <sup>®</sup> Membrane) or Topcoat <sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq. (Not to be used with GAFGLAS <sup>®</sup> EnergyCap <sup>™</sup> Mineral Surfaced Cap Sheet).
3.	Aluminum Fibered Roof Coating applied accordance with manufacturer's instructions.
Maximum Design	
Pressure:	-45 psf. (General Limitation #7)



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Membrane Type:	BUR		
Deck Type 7I:	Recover, Insulated		
Deck Description:	Structural concrete deck (minimum 2500 psi) OR Structural concrete deck (minimum 2500 psi) covered with minimum 200 psi Celcore Cellular Concrete.		
System Type D(2):	All insulation is loose laid with preliminary attachment to roof deck. Anchor sheet is subsequently mechanically fastened through insulation to roof deck.		
All General and Syste	em Limitations apply.		
One or more layers of any of the following. Insulation Layer Insulation Fasteners (Table 3) Fastener Density ft <sup>2</sup> Structodek <sup>®</sup> High Density Fiberboard Roof Insulation, EnergyGuard <sup>™</sup> HD Polyiso Insulation, EnergyGuard <sup>™</sup> HD Plus Polyiso Insulation, EnergyGuard <sup>™</sup> RH HD Polyiso Insulation, EnergyGuard <sup>™</sup> Polyiso Insulation, EnergyGuard <sup>™</sup> Ultra Polyiso Insulation, EnergyGuard <sup>™</sup> Perlite Recover Board Minimum ½" thick N/A N/A			
EnergyGuard <sup>™</sup> Perlite Roof Insulation Minimum <sup>3</sup> ⁄ <sub>4</sub> " thick N/A N/A			
DensDeck <sup>®</sup> Roof Board, Securock <sup>®</sup> Glass-Mat Roof Board, Securock <sup>®</sup> Gypsum-Fiber Roof Board			
Minimum ¼" thick N/A N/A		N/A	
NOTE: Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.			

Anchor Sheet:	GAFGLAS <sup>®</sup> #75 Base Sheet, Tri-Ply <sup>®</sup> #75 Base Sheet, GAFGLAS <sup>®</sup> #80 Ultima Base Sheet or Ruberoid <sup>®</sup> 20 Smooth is secured through the insulation, existing roof cover, lightweight concrete (when present) and into the structural concrete roof deck with Drill-Tec <sup>™</sup> #14 Fasteners and Drill-Tec <sup>™</sup> 3" Steel Plates, Drill-Tec <sup>™</sup> 3" Standard Steel Plates, Drill-Tec <sup>™</sup> AccuTrac <sup>®</sup> Flat Plates, Drill-Tec <sup>™</sup> AccuTrac <sup>®</sup> Recessed Plates or Drill-Tec <sup>™</sup> 3 in. Ribbed Galvalume <sup>®</sup> Plates (Flat) as described below.
Fastening Option #1:	Fasteners are spaced 9" o.c. in the minimum 2" wide base sheet side laps and 9" o.c. in two staggered rows in the field of the sheet. <i>(Maximum Design Pressure: -45 psf. See General Limitation #7)</i>
Fastening Option #2:	Fasteners are spaced 7" o.c. in the minimum 3" wide base sheet side laps and 7" o.c. in two staggered rows in the field of the sheet. <i>(Maximum Design Pressure: -75 psf. See General Limitation #7)</i>
Ply Sheet:	Two or more plies of GAFGLAS <sup>®</sup> Ply 4, Tri-Ply <sup>®</sup> Ply 4 or GAFGLAS <sup>®</sup> FlexPly <sup><math>m</math></sup> 6 adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs. /sq. in accordance with manufacturer's application instructions.

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Cap Sheet: (Optional)	One ply of GAFGLAS <sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply <sup>®</sup> BUR Granule Cap Sheet or GAFGLAS <sup>®</sup> EnergyCap <sup>™</sup> 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. in accordance with manufacturer's application instructions.
Surfacing: (Optional)	Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied in accordance with manufacturer's instructions. All coatings must be listed within a current NOA.
1.	Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2.	Topcoat <sup>®</sup> Membrane, Topcoat <sup>®</sup> MB Plus (to be used as a primer with Topcoat <sup>®</sup> Membrane) or Topcoat <sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq. (Not to be used with GAFGLAS <sup>®</sup> EnergyCap <sup>™</sup> Mineral Surfaced Cap Sheet)
3.	Aluminum Fibered Roof Coating applied accordance with manufacturer's instructions.
Maximum Design	

**Pressure:** See fastening above.



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Membrane Type:	BUR
Deck Type 7I:	Recover, Insulated
Deck Description:	Minimum 2" thick, 200 psi, 42 pcf Celcore Cellular Concrete cast over minimum 22 ga., type B, Grade 33 steel deck secured to 0.25 in. thick structural supports spaced at 5' o.c. using ½" diameter puddle welds with washers spaced at 6 in. and where sides lapped at the supports. This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.
System Type D(3):	All insulation is loose laid with preliminary attachment to roof deck. Anchor sheet is subsequently mechanically fastened through insulation to roof deck.

#### All General and System Limitations apply.

One or more layers of any of the following with a total Maxi	mum thickness of 1".		
Insulation Layer	Insulation Fasteners	Fastener Density ft <sup>2</sup>	
	(Table 3)		
Structodek <sup>®</sup> High Density Fiberboard Roof Insulation, EnergyGuard <sup>™</sup> HD Polyiso Insulation, EnergyGuard <sup>™</sup>			
HD Plus Polyiso Insulation, EnergyGuard <sup>™</sup> RH HD Polyiso Insulation, EnergyGuard <sup>™</sup> Polyiso Insulation,			
EnergyGuard <sup>™</sup> Ultra Polyiso Insulation, EnergyGuard <sup>™</sup> Perlite Recover Board			
Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A	
EnergyGuard <sup>™</sup> Perlite Roof Insulation			
Minimum <sup>3</sup> / <sub>4</sub> " thick	N/A	N/A	
DensDeck <sup>®</sup> Roof Board, Securock <sup>®</sup> Glass-Mat Roof Board, Securock <sup>®</sup> Gypsum-Fiber Roof Board			
Minimum ¼" thick	N/A	N/A	

NOTE: Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Anchor Sheet:	GAFGLAS <sup>®</sup> #75 Base Sheet, Tri-Ply <sup>®</sup> #75 Base Sheet, GAFGLAS <sup>®</sup> #80 Ultima Base Sheet or Ruberoid <sup>®</sup> 20 Smooth is secured through the insulation, existing roof cover, lightweight concrete (when present) and into the steel roof deck with Drill-Tec <sup>™</sup> #12 Fasteners or Drill- Tec <sup>™</sup> #14 Fasteners and Drill-Tec <sup>™</sup> 3" Steel Plates, Drill-Tec <sup>™</sup> 3" Standard Steel Plates, Drill- Tec <sup>™</sup> AccuTrac <sup>®</sup> Flat Plates, Drill-Tec <sup>™</sup> AccuTrac <sup>®</sup> Recessed Plates, Drill-Tec <sup>™</sup> 3 in. Ribbed Galvalume Plates (Flat) or with the Drill-Tec <sup>™</sup> ASAP 3S. Fasteners are spaced 6" o.c. in the minimum 3" wide base sheet side laps and 6" o.c. in two rows in the field of the sheet.
Ply Sheet:	Two or more plies of GAFGLAS <sup>®</sup> Ply 4, Tri-Ply <sup>®</sup> Ply 4 or GAFGLAS <sup>®</sup> FlexPly <sup>™</sup> 6 adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. in accordance with manufacturer's application instructions.
Cap Sheet: (Optional)	One ply of GAFGLAS <sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply <sup>®</sup> BUR Granule Cap Sheet or GAFGLAS <sup>®</sup> EnergyCap <sup>™</sup> 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. in accordance with manufacturer's application instructions.

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Surfacing: (Optional)	Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied in accordance with manufacturer's instructions. All coatings must be listed within a current NOA.
1.	Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2.	Topcoat <sup>®</sup> Membrane, Topcoat <sup>®</sup> MB Plus (to be used as a primer with Topcoat <sup>®</sup> Membrane) or Topcoat <sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq. (Not to be used with GAFGLAS <sup>®</sup> EnergyCap <sup>™</sup> Mineral Surfaced Cap Sheet).
3.	Aluminum Fibered Roof Coating applied accordance with manufacturer's instructions.
Maximum Design	
Pressure:	-75 psf. (General Limitation #7)



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Membrane Type:	BUR
Deck Type 7:	Recover, Non-Insulated
Deck Description:	Min. 15/32" thick plywood secured 6 in. o.c. at panel end and intermediate supports with 8d ring shank nails to lumber roof joists spaced 24 in. o.c. at max. The anchor sheet fasteners must demonstrate a minimum characteristic resistance force (MCRF) as follows per each anchor sheet fastening per TAS 105.
	Anchor Sheet Fastening MCRF #1 137 lbf #2 120 lbf #3 95 lbf
System Type E(1):	Anchor Sheet is mechanically attached to roof deck. (Non-insulated systems).
All General and System	m Limitations apply.
Anchor sheet:	GAFGLAS <sup>®</sup> #75 Base Sheet, Tri-Ply <sup>®</sup> #75 Base Sheet, Ruberoid <sup>®</sup> 20 Smooth or GAFGLAS <sup>®</sup> Stratavent <sup>®</sup> Nailable Venting Base Sheet is secured as described below.
Fastening Option #1:	Drill-Tec <sup>TM</sup> #14 Fasteners and Drill-Tec <sup>TM</sup> 3 in. Standard Steel Plates, Drill-Tec <sup>TM</sup> AccuTrac <sup>®</sup> Flat Plates, Drill-Tec <sup>TM</sup> 3 in. Ribbed Galvalume Plate (Flat) or Drill-Tec <sup>TM</sup> ASAP 3S are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –52.5 psf. See General Limitation #7)
Fastening Option #2:	Drill-Tec <sup>TM</sup> #14 Fasteners and Drill-Tec <sup>TM</sup> 3 in. Standard Steel Plates, Drill-Tec <sup>TM</sup> AccuTrac <sup>®</sup> Flat Plates, Drill-Tec <sup>TM</sup> 3 in. Ribbed Galvalume Plate (Flat) or Drill-Tec <sup>TM</sup> ASAP 3S are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure -60 psf. See General Limitation #7)
Fastening Option #3:	Drill-Tec <sup>TM</sup> #14 Fasteners and Drill-Tec <sup>TM</sup> 3 in. Standard Steel Plates, Drill-Tec <sup>TM</sup> AccuTrac <sup>®</sup> Flat Plates, Drill-Tec <sup>TM</sup> 3 in. Ribbed Galvalume Plate (Flat) or Drill-Tec <sup>TM</sup> ASAP 3S are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. (Maximum Design Pressure –97.5 psf. See General Limitation #7)
Ply Sheet:	Two or more plies of GAFGLAS <sup>®</sup> Ply 4, Tri-Ply <sup>®</sup> Ply 4 or GAFGLAS <sup>®</sup> FlexPly <sup>™</sup> 6 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See General Limitation #4).
Cap Sheet: (Optional)	GAFGLAS <sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply <sup>®</sup> BUR Granule Cap Sheet or GAFGLAS <sup>®</sup> EnergyCap <sup>™</sup> 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.

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Surfacing:	Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied in accordance with manufacturer's instructions. All coatings must be listed within a current NOA.
1.	Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2.	Topcoat <sup>®</sup> Membrane, Topcoat <sup>®</sup> MB Plus (to be used as a primer with Topcoat <sup>®</sup> Membrane) or Topcoat <sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq. (Not to be used with GAFGLAS <sup>®</sup> EnergyCap <sup>™</sup> Mineral Surfaced Cap Sheet).
3.	Aluminum Fibered Roof Coating applied accordance with manufacturer's instructions.
Maximum Design	
Pressure:	See Fastening Above.



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Membrane Type:	BUR
Deck Type 7:	Recover, Non-Insulated
Deck Description:	Minimum 2" thick, 300 psi, 42 pcf Celcore Cellular Light Weight Concrete; applied over Structural concrete roof deck (minimum 2500 psi) or Minimum 22 ga., type B, Grade 33 steel deck secured to 0.25 in. thick structural supports spaced at 5' o.c. using ½" diameter puddle welds with washers spaced at 6 in. and where sides lapped at the supports. <b>This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table.</b>
System Type E(2):	Anchor Sheet is mechanically attached through LWC to roof deck. (Non-insulated systems).
All General and Sys	tem Limitations apply.
Anchor Sheet:	GAFGLAS <sup>®</sup> #75 Base Sheet or Tri-Ply <sup>®</sup> #75 Base Sheet is secured through the existing roof and light weight concrete and into the steel or structural concrete roof deck with Drill-Tec <sup>™</sup> #12 Fasteners (steel deck only), Drill-Tec <sup>™</sup> #14 Fasteners and Drill-Tec <sup>™</sup> 3" Standard Steel Plates, Drill-Tec <sup>™</sup> AccuTrac <sup>™</sup> Flat Plates or with the Drill-Tec <sup>™</sup> ASAP 3S spaced 7" o.c. in the minimum 3" wide anchor sheet side laps and 7" o.c. in two staggered rows in the field of the sheet.
Ply Sheet:	Two or more plies of GAFGLAS <sup>®</sup> Ply 4, Tri-Ply <sup>®</sup> Ply 4 or GAFGLAS <sup>®</sup> FlexPly <sup>™</sup> 6 adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs. /sq. in accordance with manufacturer's application instructions.
Surfacing: (Optional)	Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied in accordance with manufacturer's instructions. All coatings must be listed within a current NOA.
1.	Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2.	Topcoat <sup>®</sup> Membrane, Topcoat <sup>®</sup> MB Plus (to be used as a primer with Topcoat <sup>®</sup> Membrane) or Topcoat <sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq.
3.	Aluminum Fibered Roof Coating applied in accordance with manufacturer's instructions.
Maximum Design Pressure:	-75 psf. (General Limitation #7)

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Membrane Type:	BUR	
Deck Type 7:	Recover, Non-Insulated	
<b>Deck Description:</b>	Concrete/lightweight concrete/cementitious wood fiber/poured gypsum	
System Type F:	Base sheet is adhered to existing roof.	
All General and System Limitations shall apply.		
Base Sheet:	One ply of one of GAFGLAS <sup>®</sup> Stratavent <sup>®</sup> Perforated Venting Base Sheet loose laid and mopped with an approved asphalt to a primed smooth surface.	
Ply Sheet:	Two or more plies of GAFGLAS <sup>®</sup> Ply 4, Tri-Ply <sup>®</sup> Ply 4 or GAFGLAS <sup>®</sup> FlexPly <sup><math>m</math></sup> 6 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 <sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply <sup>®</sup> BUR Granule Cap Sheet or GAFGLAS <sup>®</sup> EnergyCap <sup>™</sup> Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs. /sq.	
Surfacing:	Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied in accordance with manufacturer's instructions. All coatings must be listed within a current NOA.	
1.	Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.	
2.	Topcoat <sup>®</sup> Membrane, Topcoat <sup>®</sup> MB Plus (to be used as a primer with Topcoat <sup>®</sup> Membrane) or	
3.	Topcoat <sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq. Aluminum Fibered Roof Coating applied accordance with manufacturer's instructions.	
Maximum Design Pressure:	-60 psf. (See General Limitation #9).	



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### **Recover System Limitations:**

- 1. All System Limitations and General Limitations shall apply. See specific deck type Notice of Acceptance for deck type System Limitations.
- 2. All assemblies listed herein shall be installed in compliance with the applicable sections of FBC 1521. Uplift performance of assemblies bonded to existing roofing system shall be verified per 1521.10. Uplift performance of assemblies mechanically attached through existing roofing system shall be verified per 1521.11.

### **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



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