

# Miami Dade Building Code Compliance Office Notice of Acceptance

## Product Certification

Updated: 12/05



*Quality You Can Trust Since 1886...  
From North America's Largest Roofing Manufacturer™*



**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)**

**Tri-Ply, Inc.**  
**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 High Velocity Hurricane Zone of the Florida Building Code.

**DESCRIPTION: Tri-Ply Modified Bitumen Roof System for Steel Decks.**

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

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

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

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

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

This NOA renews NOA #01-0129.20 and consists of pages 1 through 26.  
 The submitted documentation was reviewed by Jorge L. Acebo



**NOA No.: 05-0819.07**  
**Expiration Date: 05/10/11**  
**Approval Date: 12/22/05**  
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## ROOFING SYSTEM APPROVAL

<b>Category:</b>	Roofing
<b>Sub-Category:</b>	SBS/APP, Modified Bitumen
<b>Deck Type:</b>	Steel
<b>Maximum Design Pressure</b>	-60 psf
<b>Fire Classification:</b>	See General Limitation #1

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

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
TriPly Asphalt Concrete Primer	5, 55 gallons	ASTM D 41	Asphalt concrete primer used to promote adhesion of asphalt in built-up roofing.
TriPly #75 Base Sheet	3 sq. roll 75 lb. roll	ASTM D 4601	Asphalt impregnated and coated glass mat base sheet.
TriPly Ply 4	5 sq. roll	ASTM D 2178	Type IV asphalt impregnated glass felt with asphalt coating.
Tri-Ply Ply 6	5 sq. roll 45 lb. roll	ASTM D 2178	Type VI asphalt impregnated glass felt with asphalt coating.
TriPly Mineral Surfaced Cap Sheet	76 lb. roll	ASTM D 3909	Asphalt coated, glass fiber mat cap sheet surfaced with mineral granules.
Tri-Ply Modified Bitumen Adhesive	5 gallons	ASTM D 3019 Type III	Fiber reinforced, rubberized Adhesive
TriPly SBS Modified Bitumen	1 sq. roll 103 lbs.	ASTM D 5147	Non-woven polyester mat coated with polymer modified asphalt and surfaced with mineral granules.
TP 4 Smooth APP Modified Bitumen	1 sq. roll 87 lbs.	ASTM D 5147	Heavy duty, polyester reinforced, asphalt modified bitumen membrane, smooth surface.
TP 4 Granule APP Modified Bitumen	1 sq. roll 102 lbs.	ASTM D 5147	Heavy duty, polyester reinforced, asphalt modified bitumen membrane, granule surface.
TriPly Aluminum Roof Coating	5 gallons	ASTM D2824, Type I	Non-fibered, aluminum pigmented, asphalt roof coating
TriPly Modified Bitumen Flashing Cement	5 gallons	ASTM D 3019 Type III	Fiber reinforced, rubberized Adhesive



**APPROVED INSULATIONS:**

**TABLE 2**

<b>Product Name</b>	<b>Product Description</b>	<b>Manufacturer (With Current NOA)</b>
GAFTEMP Isotherm RA, RN & Composite	Polyisocyanurate foam insulation	GAF Materials Corp.
GAFTEMP® Composite A & N	Polyisocyanurate foam insulation with high density fiberboard or Permalite perlite insulation.	GAF Materials Corp.
GAFTEMP® Fiberboard	Fiberboard insulation.	GAF Materials Corp.
GAFTEMP® Permalite	Perlite insulation board.	GAF Materials Corp.
GAFTEMP Recover Board	Perlite recover board	GAF Materials Corp.
GAFTEMP® High Density Fiberboard	High density wood fiberboard insulation.	GAF Materials Corp.
PYROX	Polyisocyanurate foam insulation	Apache Products Co.
Nail-Line	Polyisocyanurate foam insulation	Apache Products Co.
ACFoam I & II	Polyisocyanurate foam insulation	Atlas Energy Products
Hy-Therm AP	Polyisocyanurate foam insulation	Celotex Corp.
Hy-Therm Nail-Line	Polyisocyanurate foam insulation	Celotex Corp.
ISO 95+	Polyisocyanurate foam insulation	Firestone Building Products, Inc.
Wood Fiber	Wood fiber insulation board	generic
High Density Wood Fiberboard	Wood fiber insulation board	generic
Perlite Insulation	Perlite insulation board	generic
E'NRG'Y-2 & E'NRG'Y-2 PLUS	Polyisocyanurate foam insulation	Johns Manville
FiberGlass Roof Insulation	Glass fiber/Mineral fiber insulation	Johns Manville
Multi-Max	Polyisocyanurate roof insulation	RMax, Inc.



**APPROVED FASTENERS:**

**TABLE 3**

<b>Fastener Number</b>	<b>Product Name</b>	<b>Product Description</b>	<b>Dimensions</b>	<b>Manufacturer (With Current NOA)</b>
1.	GAFTITE® #12 Standard & #14 Heavy Duty Roofing Fastener	Insulation fastener for steel, wood & concrete decks.		GAF Materials Corp.
2.	GAFTITE® ASAP	Pre-assembled GAFTITE Fasteners and metal and plastic plates.		GAF Materials Corp.
3.	GAFTITE® Base Sheet Fastener and Plate	Base sheet fastening assembly.		GAF Materials Corp.
4.	Galvalume Plates	Round galvalume stress plates.	3" and 3 ½"	GAF Materials Corp.
5.	Polypropylene Plates	Round polypropylene stress plates.	3" and 3 ½"	GAF Materials Corp.
6.	Anchorbond Fastener	Insulation fastening assembly		Celotex Corp.
7.	Anchorbond Steel Plate	Hexagonal steel stress plates.	3-¼" x 2- <sup>7</sup> / <sub>8</sub> "	Celotex Corp.
8.	Anchorbond Plastic Plate	Hexagonal polypropylene stress plates.	3-¼" x 3"	Celotex Corp.
9.	Dekfast Fasteners #12, #14 & #15	Insulation fastener for wood, steel and concrete decks		Construction Fasteners Inc.
10.	Dekfast Hex Plate	Galvalume hex stress plate.	2 7/8" x 3 1/4"	Construction Fasteners Inc.
11.	Dekfast Lock Plate	Polypropylene locking plate.	3" x 3 1/4"	Construction Fasteners Inc.
12.	Hextra	Insulation fastener steel or wood decks		ITW Buildex
13.	#12 & #14 Roofgrip	Insulation fastener steel, wood or concrete decks		ITW Buildex
14.	Standard Plastic Plate	Polypropylene plastic plate	3" round	ITW Buildex
15.	Metal Plate	Galvalume round plate for use with Hextra or Roofgrip	3" round	ITW Buildex
16.	Metal Plate	Galvalume plate for use with Buildex Roofgrip	3" square	ITW Buildex



**APPROVED FASTENERS:**

**TABLE 3**

<b>Fastener Number</b>	<b>Product Name</b>	<b>Product Description</b>	<b>Dimensions</b>	<b>Manufacturer (With Current NOA)</b>
17.	Olympic Fastener #12 & #14	Insulation fastener		Olympic Manufacturing Group, Inc.
18.	Olympic Fastener ASAP	Pre-assembled Insulation fastener and plate		Olympic Manufacturing Group, Inc.
19.	Olympic Polypropylene	Polypropylene plastic plate	3.25" round	Olympic Manufacturing Group, Inc.
20.	Olympic Standard	3" round galvalume AZ50 steel plate	3" round	Olympic Manufacturing Group, Inc.
21.	UltraFast Fastener	Insulation fastener		Johns Manville
22.	UltraFast Metal Plate	3" square galvalume AZ50 steel plate	3" square	Johns Manville
23.	UltraFast Plastic Plate	3" round polyethylene stress plate	3" round	Johns Manville
24.	GlasFast Fastener	Insulation fastener assembly with recessed plastic plate		Johns Manville
25.	Rawl #12 & #14	Insulation fastener for steel and wood decks		Powers Fasteners, Inc.
26.	Rawl Plate	3" round galvalume AZ55 steel plate	3" round	Powers Fasteners, Inc.
27.	Insul-Fixx Fastener	Insulation fastener for steel and wood decks		SFS/Stadler
28.	Insul-Fixx S Plate	3" round galvalume AZ50 steel plate	3" round	SFS/Stadler
29.	Insul-Fixx P Plate	3" round polyethylene stress plate	3" round	SFS/Stadler
30.	Tru-Fast	Insulation fastener for steel, wood, concrete.		Tru-Fast
31.	Tru-Fast Plastic Plate	3.04" round polyethylene plastic plate	3.04" round	Tru-Fast
32.	Tru-Fast MP-3	3.23" round galvalume AZ50 steel plate	3.23" round	Tru-Fast



**EVIDENCE SUBMITTED:**

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Factory Mutual Research Corp.	Current Insulation Attachment Requirements	FMRC 1996	01.01.96
Factory Mutual Research Corp.	FMRC 4470 - PA 114	J.I. 1B9A8.AM	09.04.97
Factory Mutual Research Corp.	FMRC 4470 - PA 114	J.I. 3D4Q2.AM	04.30.97
Trinity Engineering	Wind Uplift PA 114	4483.04 97-1	06.06.97
Underwriters Laboratories, Inc.	Fire Resistance Classification UL 790 - PA 114	R1306, 87NK11819	01.01.93
Dynatech Engineering Corporation	Wind Uplift PA 114	#3600.02.95-1	02.02.95
Dynatech Engineering Corporation	Wind Uplift PA 114	#4482.02.95-1	02.02.95



**Membrane Type:** APP

**Deck Type 2:** Steel, Insulated New Construction and Re-Roof

**Deck Description:** 18-22 ga. steel

**System Type B:** Base layer of insulation is mechanically attached to roof deck. Any subsequent layers are then adhered to base layer of insulation. Membrane is subsequently fully or partially adhered to insulation.

**All General and System Limitations shall apply.**

One or more layers of any of the following insulations.

<b>Insulation for Base Layer (Table 2) (When applicable: Steel plate only =S, plastic plate only =P)</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
ACFoam-I (Min. 1.3" thick)	1S, 2, 9S, 12, 13, 17S, 18, 27 or 30S	1:3
ACFoam-II, GAFTEMP Isotherm RA (Min. 1.3" thick)	1, 2, 6, 9, 17, 18, 24, 25 or 27	1:4
E'NRG'Y 2, GAFTEMP Isotherm RN (Min. 1.4" thick)	1, 2, 6S, 9S, 12, 13, 17, 18, 25 or 30	1:3
E'NRG'Y 2 Plus, GAFTEMP Isotherm N (Min. 1.5" thick)	6, 9, 12, 13, 21 or 27 1, 2, 17, 18 or 25	1:3 1:4
Apache Pyrox, Hy-Therm AP (Min. 1.3" thick)	1, 2, 6, 9, 12, 13, 17, 18, 24, 27 or 30S	1:2.67
ISO 95+ (Min. 1.4" thick)	1, 6S, 9S, 12S, 13, 17, 21, 24, 27 or 30S	1:4
Perlite, GAFTEMP® PERMALITE (Min. ¾" thick)	1, 2, 6S, 9S, 17 or 18	1:2
Fiberglass (Min. 1 <sup>5</sup> / <sub>16</sub> " thick)	1, 2, 6, 9, 12, 13, 17, 18, 21, 24, 27S or 30S	1:2.67
High Density Wood Fiber, GAFTEMP High Density Fiberboard (Min. 1" thick)	1, 2, 6S, 9S, 12S, 13S, 17, 18, 21S or 30S	1:4

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

<b>Insulation for Top Layer (Table 2)</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
Any of the insulations listed for Base Layer, above.	N/A	N/A
GAFTEMP® Recover Board (Min. ½" thick)	N/A	N/A





**Note: Optional top layer of insulation shall be adhered with 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. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.**

Base Sheet:	Install one ply of TriPly #75, Ply 4, or Ply 6 base sheet	Applied directly over the top layer of insulation. Adhere with any approved mopping 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 TriPly Ply 4 or Ply 6 sheet	Fully adhered in type III or IV of approved asphalt at an application rate of 20-40 lbs./sq.
Membrane:	One or more plies of TP 4 Smooth or TP 4 Granule APP Modified Bitumen	Applied according to manufacturer's application instructions.
Surfacing:	(Optional) Install one of the following:	
	1. Gravel or slag	Applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
	2. GAF Premium Fibered Aluminum Roof Coating	Applied at a rate of 1.5 gal./sq.
	3. GAF WeatherCoat <sup>®</sup> Emulsion	Applied at a rate of 3 gal./sq. (Torch Smooth applications only)
Maximum Design Pressure:	-45 psf (See General Limitation #7)	



**Membrane Type:** SBS

**Deck Type 2:** Steel, Insulated New Construction and Re-Roof

**Deck Description:** 18-22 ga. steel

**System Type B:** Base layer of insulation is mechanically attached to roof deck. Any subsequent layers are then adhered to base layer of insulation. Membrane is subsequently fully or partially adhered to insulation.

**All General and System Limitations shall apply.**

One or more layers of any of the following insulations.

<b>Insulation for Base Layer (Table 2) (When applicable: Steel plate only =S, plastic plate only =P)</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam-I (Min. 1.3" thick)</b>	<b>1S, 2, 9S, 12, 13, 17S, 18, 27 or 30S</b>	<b>1:3</b>
<b>ACFoam-II, GAFTEMP Isotherm RA (Min. 1.3" thick)</b>	<b>1, 2, 6, 9, 17, 18, 24, 25 or 27</b>	<b>1:4</b>
<b>E'NRG'Y 2, GAFTEMP Isotherm RN (Min. 1.4" thick)</b>	<b>1, 2, 6S, 9S, 12, 13, 17, 18, 25 or 30</b>	<b>1:3</b>
<b>E'NRG'Y 2 Plus, GAFTEMP Isotherm N (Min. 1.5" thick)</b>	<b>6, 9, 12, 13, 21 or 27 1, 2, 17, 18 or 25</b>	<b>1:3 1:4</b>
<b>Apache Pyrox, Hy-Therm AP (Min. 1.3" thick)</b>	<b>1, 2, 6, 9, 12, 13, 17, 18, 24, 27 or 30S</b>	<b>1:2.67</b>
<b>ISO 95+ (Min. 1.4" thick)</b>	<b>1, 6S, 9S, 12S, 13, 17, 21, 24, 27 or 30S</b>	<b>1:4</b>
<b>Perlite, GAFTEMP® PERMALITE (Min. ¾" thick)</b>	<b>1, 2, 6S, 9S, 17 or 18</b>	<b>1:2</b>
<b>Fiberglass (Min. 1<sup>5</sup>/<sub>16</sub>" thick)</b>	<b>1, 2, 6, 9, 12, 13, 17, 18, 21, 24, 27S or 30S</b>	<b>1:2.67</b>
<b>High Density Wood Fiber, GAFTEMP High Density Fiberboard (Min. 1" thick)</b>	<b>1, 2, 6S, 9S, 12S, 13S, 17, 18, 21S or 30S</b>	<b>1:4</b>
<b>Wood Fiber, GAFTEMP Fiberboard (Min. 1.3" thick)</b>	<b>1, 2, 6, 9, 13, 17, 18, 27 or 30S</b>	<b>1:4</b>



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

Insulation for Top Layer (Table 2)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
Any of the insulations listed for Base Layer, above.	N/A	N/A
GAFTEMP® Recover Board, GAFTEMP Fiberboard or GAFTEMP High Density Fiberboard (Min. 1/2" thick)	N/A	N/A

**Note: Optional top layer of insulation shall be adhered with 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. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.**

Base Sheet:	Install one ply of TriPly #75, Ply 4, or Ply 6 base sheet	Applied directly over to the insulated substrate. Adhere with any approved mopping 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 TriPly Ply 4 or Ply 6 sheet	Fully adhered in type III or IV of an approved asphalt at an application rate of 20-40 lbs./sq.
Membrane:	One or more plies of TriPly SBS Modified Bitumen	Adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Surfacing:	(Optional) Install one of the following:	
	1. Gravel or slag	Applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
	2. TriPly Mineral Surfaced Cap Sheet	Adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Maximum Design Pressure:	-45 psf (See General Limitation #7)	



**Membrane Type:** APP & SBS  
**Deck Type 2:** Steel, Insulated, New Construction and Re-Roof  
**Deck Description:** 18-22 ga. steel  
**System Type C:** All layer of insulation are mechanically attached to roof deck. Membrane is subsequently loose laid over insulation.

**All General and System Limitations shall apply.**

One or more layers of any of the following insulations.

Insulation Layer (Table 2)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ACFoam-II, GAFTEMP Isotherm RA (Min. 2" thick)	1	1:1.5
Apache Pyrox (Min. 2" thick)	1	1:1.5

**Base Sheet:** One ply of GAFGLAS STRATAVENT® Perforated Loose laid with 2" side laps.

**Ply Sheet:** (Optional, required for torch applied membranes) One or more plies of TriPly Ply 4, Ply 6 Fully adhered in type III or IV of an approved asphalt at an application rate of 20-40 lbs./sq.

**Membrane:** One or more plies of TP 4 Smooth, TP 4 Granule APP Modified Bitumen or TriPly SBS Modified Bitumen Applied according to manufacturer's application instructions

**Surfacing:** (Optional) Install one of the following:

- Gravel or slag Applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
- GAF Premium Fibered Aluminum Roof Coating Applied at a rate of 1.5 gal./sq.
- GAF WeatherCoat® Emulsion Applied at a rate of 3 gal./sq. (Torch Smooth applications only)
- TriPly Mineral Surfaced Cap Sheet Adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

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



**Membrane Type:** APP  
**Deck Type 2:** Steel, Insulated New Construction and Re-Roof  
**Deck Description:** 18-22 ga. steel  
**System Type C:** All layers of insulation are mechanically attached to roof deck. Membrane is subsequently fully or partially adhered to insulation.

**All General and System Limitations shall apply.**

One or more layers of any of the following insulations.

<b>Insulation for Base Layer (Table 2)</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
ACFoam-I, GAFTEMP Isotherm RA, GAFTEMP Isotherm RN (Min. 1.3" thick)	N/A	N/A
E'NRG'Y 2, ISO 95+ (Min. 1.4" thick)	N/A	N/A
E'NRG'Y 2 Plus, GAFTEMP Composite A, GAFTEMP Composite N (Min. 1.5" thick)	N/A	N/A
Apache Pyrox, Hy-Therm AP, AC-Foam II (Min. 1.3" thick)	N/A	N/A
Perlite, GAFTEMP® Permalite (Min. ¾" thick)	N/A	N/A
Fiberglass (Min. 1 <sup>5</sup> / <sub>16</sub> " thick)	N/A	N/A
High Density Wood Fiber, GAFTEMP® High Density Fiberboard (Min. ¾" thick)	N/A	N/A
Wood Fiber, GAFTEMP® Fiberboard (Min. 1" thick)	N/A	N/A

**Note:** All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<b>Insulation for Top Layer (Table 2) (When applicable: Steel plate only =S, plastic plate only =P)</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
ACFoam-I (Minimum 1.3" thick)	1S, 2, 9S, 12, 13, 17S, 18, 27 or 30S	1:3
ACFoam-II, GAFTEMP Isotherm RA (Min. 1.3" thick)	1, 2, 6, 9, 17, 18, 24, 25 or 27	1:4
E'NRG'Y 2, GAFTEMP Isotherm RN (Min. 1.4" thick)	1, 2, 6S, 9S, 12, 13, 17, 18, 25 or 30	1:3



<b>E'NRG'Y 2 Plus, GAFTEMP Composite N (Min. 1.5" thick)</b>	<b>6, 9, 12, 13, 21, 25 or 27</b>	<b>1:2.67</b>
<b>Apache/Hy-Therm Nail-Line (Min. 1.5" thick)</b>	<b>1, 2, 9, 17, 18, 27 or 30</b>	<b>1:2.67</b>
<b>PYROX Hy-Therm AP (Min. 1.3" thick)</b>	<b>1, 2, 6, 9, 12, 13, 17, 18, 24, 27 or 30S</b>	<b>1:2.67</b>
<b>ISO 95+ (Min. 1.4" thick)</b>	<b>1, 2, 6S, 9S, 12S, 13, 17, 18, 21, 24, 27 or 30S</b>	<b>1:4</b>
<b>Perlite, GAFTEMP® PERMALITE (Min. ¾" thick)</b>	<b>1S, 2, 6S, 9S or 17S</b>	<b>1:2</b>
<b>Fiberglass (Min. 1<sup>5</sup>/<sub>16</sub>" thick)</b>	<b>1, 2, 6, 9, 12, 13, 17, 18, 21, 24, 27S or 30S</b>	<b>1:2.67</b>
<b>High Density Wood Fiber, GAFTEMP High Density Fiberboard (Min. ¾" thick)</b>	<b>6S, 9S, 12S, 13S, 17S, 21S or 30S</b>	<b>1:4</b>
<b>Wood Fiber, GAFTEMP Fiberboard (Min. 1.3" thick)</b>	<b>1, 2, 6, 9, 13, 17, 18, 27 or 30S</b>	<b>1:3</b>

**Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

<b>Base Sheet:</b>	Install one ply of TriPly Ply 4, Ply 6 or #75 Base Sheet	Applied directly over the top layer of insulation. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See General Limitation #4).
<b>Ply Sheet:</b>	(Optional) One or more plies TriPly Ply 4 or Ply 6 sheet.	Adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
<b>Membrane:</b>	One ply of TP 4 Smooth, TP 4 Granule APP Modified Bitumen	Applied according to manufacturer's application instructions.
<b>Surfacing:</b>	(Optional) Install one of the following:	
	1. Gravel or slag	Applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
	2. GAF Premium Fibered Aluminum Roof Coating	Applied at a rate of 1.5 gal./sq.
	3. GAF WeatherCoat® Emulsion	Applied at a rate of 3 gal./sq. (Torch Smooth applications only)
<b>Maximum Design Pressure:</b>	-45 psf (See General Limitation #7)	



**Membrane Type:** SBS  
**Deck Type 2:** Steel, Insulated New Construction and Re-Roof  
**Deck Description:** 18-22 ga. steel  
**System Type C:** All layers of insulation are mechanically attached to roof deck. Membrane is subsequently fully or partially adhered to insulation.

**All General and System Limitations shall apply.**

One or more layers of any of the following insulations.

<b>Insulation for Base Layer (Table 2)</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
ACFoam-I, GAFTEMP Isotherm RA, GAFTEMP Isotherm RN (Min. 1.3" thick)	N/A	N/A
E'NRG'Y 2 , ISO 95+ (Min. 1.4" thick)	N/A	N/A
E'NRG'Y 2 Plus, GAFTEMP Composite A, GAFTEMP Composite N (Min. 1.5" thick)	N/A	N/A
Apache Pyrox, Hy-Therm AP, AC-Foam II (Min. 1.3" thick)	N/A	N/A
Perlite, GAFTEMP® Permalite (Min. ¾" thick)	N/A	N/A
Fiberglass (Min. 1 <sup>5</sup> / <sub>16</sub> " thick)	N/A	N/A
High Density Wood Fiber, GAFTEMP® High Density Fiberboard (Min. ¾" thick)	N/A	N/A
Wood Fiber, GAFTEMP® Fiberboard (Min. 1" thick)	N/A	N/A

**Note:** All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<b>Insulation for Top Layer (Table 2) (When applicable: Steel plate only =S, plastic plate only =P)</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
ACFoam-I (Minimum 1.3" thick)	1S, 2, 9S, 12, 13, 17S, 18, 27 or 30S	1:3
ACFoam-II, GAFTEMP Isotherm RA (Min. 1.3" thick)	1, 2, 6, 9, 17, 18, 24, 25 or 27	1:4
E'NRG'Y 2, GAFTEMP Isotherm RN (Min. 1.4" thick)	1, 2, 6S, 9S, 12, 13, 17, 18, 25 or 30	1:3



<b>E'NRG'Y 2 Plus, GAFTEMP Composite N (Min. 1.5" thick)</b>	<b>1, 2, 6, 9, 12, 13, 17, 18, 21, 25 or 27</b>	<b>1:2.67</b>
<b>Apache/Hy-Therm Nail-Line (Min. 1.5" thick)</b>	<b>1, 2, 9, 17, 18, 27 or 30</b>	<b>1:2.67</b>
<b>PYROX Hy-Therm AP (Min. 1.3" thick)</b>	<b>1, 2, 6, 9, 12, 13, 17, 18, 24, 27 or 30S</b>	<b>1:2.67</b>
<b>ISO 95+ (Min. 1.4" thick)</b>	<b>1, 2, 6S, 9S, 12S, 13, 17, 18, 21, 24, 27 or 30S</b>	<b>1:4</b>
<b>Perlite, GAFTEMP® PERMALITE (Min. ¾" thick)</b>	<b>1S, 2, 6S, 9S or 17S</b>	<b>1:2</b>
<b>Fiberglass (Min. 15/16" thick)</b>	<b>1, 2, 6, 9, 12, 13, 17, 18, 21, 24, 27S or 30S</b>	<b>1:2.67</b>
<b>High Density Wood Fiber, GAFTEMP High Density Fiberboard (Min. ¾" thick)</b>	<b>6S, 9S, 12S, 13S, 17S, 21S or 30S</b>	<b>1:4</b>
<b>Wood Fiber, GAFTEMP Fiberboard (Min. 1.3" thick)</b>	<b>1, 2, 6, 9, 13, 17, 18, 27 or 30S</b>	<b>1:3</b>

**Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

<b>Base Sheet:</b>	Install one ply of TriPly Ply 4, Ply 6 or #75 Base Sheet	Applied directly over the top layer of insulation. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See General Limitation #4).
<b>Ply Sheet:</b>	(Optional) One or more plies TriPly Ply 4 or Ply 6 sheet.	Adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
<b>Cap Sheet:</b>	(Optional) One ply of TriPly 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.
<b>Surfacing:</b>	(Required if no cap sheet is used) Install one of the following:	
	1. Gravel or slag	Applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
	2. GAF Premium Fibered Aluminum Roof Coating	Applied at a rate of 1.5 gal./sq.
	3. GAF WeatherCoat® Emulsion	Applied at a rate of 3 gal./sq. (Torch Smooth applications only)
<b>Maximum Design Pressure:</b>	-45 psf (See General Limitation #7)	





**Membrane Type:** APP  
**Deck Type 2:** Steel, Insulated New Construction and Re-Roof  
**Deck Description:** 18-22 ga. steel  
**System Type D(1):** All insulation is loose laid with preliminary attachment to roof deck. Base and/or anchor sheet is subsequently mechanically fastened through insulation to the roof deck.

**All General and System Limitations shall apply.**

One or more layers of any of the following insulations.

Insulation Layer (Table 2)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ACFoam-I, E'NRG'Y 2, GAFTEMP® Isotherm R, E'NRG'Y 2 Plus, GAFTEMP Isotherm RA, GAFTEMP Isotherm RN, GAFTEMP Composite, GAFTEMP Composite A, GAFTEMP Composite N loosely laid with firmly butted joints. (Min. 1.3" thick)	N/A	N/A
GAFTEMP High Density Fiberboard, GAFTEMP Fiberboard. (Min. 1" thick)	N/A	N/A

**Base Sheet:** TriPly #75 Base Sheet Applied over the loose laid insulation with 2" side laps. GAFTITE #12 or #14 Screws and 3" Plates are installed through the base sheet and insulation in 3 rows 12" o.c. One row is in the 2" side lap. The other rows are equally spaced approximately 12" o.c. in the field of the sheet.

**Ply Sheet:** (Optional) One or more plies TriPly Ply 4 or Ply 6 sheet. Adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Membrane:** One ply of TP 4 Smooth, TP 4 Granule APP Modified Bitumen Applied according to manufacturer's application instructions.

**Surfacing:** (Optional) Install one of the following:

1. Gravel or slag Applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. GAF Premium Fibered Aluminum Roof Coating Applied at a rate of 1.5 gal./sq.
3. GAF WeatherCoat® Emulsion Applied at a rate of 3 gal./sq. (Torch Smooth applications only)

**Maximum Design Pressure:** -45 psf (See General Limitation #7)



**Membrane Type:** SBS

**Deck Type 2:** Steel, Insulated New Construction and Re-Roof

**Deck Description:** 18-22 ga. steel

**System Type D(1):** All insulation is loose laid with preliminary attachment to roof deck. Base and/or anchor sheet is subsequently mechanically fastened through insulation to the roof deck.

**All General and System Limitations shall apply.**

One or more layers of any of the following insulations.

<b>Insulation Layer (Table 2)</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam-I, E'NRG'Y 2, GAFTEMP® Isotherm R, E'NRG'Y 2 Plus, GAFTEMP Isotherm RA, GAFTEMP Isotherm RN, GAFTEMP Composite, GAFTEMP Composite A, GAFTEMP Composite N loosely laid with firmly butted joints. (Min. 1.3" thick)</b>	N/A	N/A
<b>GAFTEMP High Density Fiberboard, GAFTEMP Fiberboard. (Min. 1" thick)</b>	N/A	N/A

<b>Base Sheet:</b>	TriPly #75 Base Sheet	Applied over the loose laid insulation with 2" side laps. GAFTEITE #12 or #14 Screws and 3" Plates are installed through the base sheet and insulation in 3 rows 12" o.c. One row is in the 2" side lap. The other rows are equally spaced approximately 12" o.c. in the field of the sheet.
<b>Ply Sheet:</b>	(Optional) One or more plies TriPly Ply 4 or Ply 6 Sheet	Adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
<b>Membrane:</b>	One or more plies of TriPly SBS Modified Bitumen	Adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in TriPly Modified Bitumen Adhesive at an application rate of 1-2 gal./sq.
<b>Surfacing:</b>	(Optional) Install one of the following:	
	1. Gravel or slag	Applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
	2. TriPly Mineral Surfaced Cap Sheet	In approved asphalt at an application rate of 25 lb./sq. ± 15%.
<b>Maximum Design Pressure:</b>	-45 psf (See General Limitation #7)	



**Membrane Type:** APP  
**Deck Type 2:** Steel, Insulated New Construction and Re-Roof  
**Deck Description:** 18-22 ga. steel  
**System Type D(2):** All insulation is loose laid with preliminary attachment to roof deck. Base and/or anchor sheet is subsequently mechanically fastened through insulation to the roof deck.

**All General and System Limitations shall apply.**

One or more layers of any of the following insulations.

<b>Insulation Layer (Table 2)</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam-I, E'NRG'Y 2, GAFTEMP® Isotherm R, E'NRG'Y 2 Plus, GAFTEMP Isotherm RA, GAFTEMP Isotherm RN, GAFTEMP Composite, GAFTEMP Composite A, GAFTEMP Composite N loosely laid with firmly butted joints. (Min. 1.3" thick)</b>	N/A	N/A
<b>GAFTEMP High Density Fiberboard, GAFTEMP Fiberboard. (Min. 1" thick)</b>	N/A	N/A

<b>Base Sheet:</b>	TriPly #75 Base Sheet	Applied over the loose laid insulation with 2" side laps. GAF TITE #12 or #14 Screws and 3" Plates are installed through the base sheet and insulation in 4 rows 12" o.c. One row is in the 2" side lap. The other 3 rows are equally spaced approximately 9" o.c. in the field of the sheet.
<b>Ply Sheet:</b>	(Optional) One or more plies TriPly Ply 4 or Ply 6 sheet.	Adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
<b>Membrane:</b>	One ply of TP 4 Smooth, TP 4 Granule APP Modified Bitumen	Applied according to manufacturer's application instructions.
<b>Surfacing:</b>	(Optional) Install one of the following:	
	1. Gravel or slag	Applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
	2. GAF Premium Fibered Aluminum Roof Coating	Applied at a rate of 1.5 gal./sq.
	3. GAF WeatherCoat® Emulsion	Applied at a rate of 3 gal./sq. (Torch Smooth applications only)
<b>Maximum Design Pressure:</b>	-60 psf (See General Limitation #7)	



**Membrane Type:** SBS  
**Deck Type 2:** Steel, Insulated New Construction and Re-Roof  
**Deck Description:** 18-22 ga. steel  
**System Type D(1):** All insulation is loose laid with preliminary attachment to roof deck. Base and/or anchor sheet is subsequently mechanically fastened through insulation to the roof deck.

**All General and System Limitations shall apply.**

One or more layers of any of the following insulations.

<b>Insulation Layer (Table 2)</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam-I, E'NRG'Y 2, GAFTEMP® Isotherm R, E'NRG'Y 2 Plus, GAFTEMP Isotherm RA, GAFTEMP Isotherm RN, GAFTEMP Composite, GAFTEMP Composite A, GAFTEMP Composite N loosely laid with firmly butted joints. (Min. 1.3" thick)</b>	N/A	N/A
<b>GAFTEMP High Density Fiberboard, GAFTEMP Fiberboard. (Min. 1" thick)</b>	N/A	N/A

<b>Base Sheet:</b>	TriPly #75 Base Sheet	Applied over the loose laid insulation with 2" side laps. GAFTITE #12 or #14 Screws and 3" Plates are installed through the base sheet and insulation in 4 rows 12" o.c. One row is in the 2" side lap. The other 3 rows are equally spaced approximately 9" o.c. in the field of the sheet.
<b>Ply Sheet:</b>	(Optional) One or more plies TriPly Ply 4 or Ply 6 Sheet	Adhered in full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
<b>Membrane:</b>	One or more plies of TriPly SBS Modified Bitumen	Adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in TriPly Modified Bitumen Adhesive at an application rate of 1-2 gal./sq.
<b>Surfacing:</b>	(Optional) Install one of the following: 1. Gravel or slag 2. TriPly Mineral Surfaced Cap Sheet	Applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq. In approved asphalt at an application rate of 25 lb./sq. ± 15%.
<b>Maximum Design Pressure:</b>	-60 psf (See General Limitation #7)	



**Membrane Type:** APP & SBS

**Deck Type 2:** Steel, Insulated, New Construction and Re-Roof

**Deck Description:** 18-22 ga. Factory Mutual Approved steel deck.

**System Type B:** Base layer of insulation is mechanically attached to roof deck. Any subsequent layers are then adhered to base layer of insulation. Membrane is subsequently fully or partially adhered to insulation.

**All General and System Limitations shall apply.**

One or more layers of any of the following insulations.

<b>Insulation for Base Layer (Table 2)</b> (When applicable: Steel plate only =S, plastic plate only =P)	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>E'NRG'Y 2, 2 Plus, AC Foam I, II, Apache Pyrox, Hy-Therm AP, ISO 95+(Min. 1.2" thick)</b>	GAFTITE insulation screws and steel plates	1:4

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

<b>Insulation for Top Layer (Table 2)</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>GAFTEMP® Permalite, Perlite (Min. ¾" thick)</b>	N/A	N/A

**Note: Apply top layer of insulation in a full mopping of any approved mopping asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>. Please refer to Roofing Application Standard PA 117 for insulation attachment. Insulation listed as Base Layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.**

<b>Base Sheet:</b>	One ply of TriPly Ply 4, Ply 6 or #75 Base Sheet	Applied directly over the top layer of insulation. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
<b>Ply Sheet:</b>	(Optional) Two or more plies TriPly Ply 4 or Ply 6 sheet	Fully adhered in type III or IV of an approved asphalt at an application rate of 20-40 lbs./sq.
<b>Membrane:</b>	One or more plies of TP 4 Smooth, TP 4 Granule APP Modified Bitumen or TriPly SBS Modified Bitumen	Applied according to manufacturer's application instructions



Surfacing:

(Optional) Install one of the following:

1. Gravel or slag Applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. GAF Premium Fibered Aluminum Roof Coating Applied at a rate of 1.5 gal./sq.
3. GAF WeatherCoat® Emulsion Applied at a rate of 3 gal./sq. (Torch Smooth applications only)
4. TriPly Mineral Surfaced Cap Sheet Adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Maximum Design Pressure:

-52.5 psf (See General Limitation #9)



**Membrane Type:** APP & SBS

**Deck Type 2:** Steel, Insulated, New Construction and Re-Roof

**Deck Description:** 18-22 ga. Factory Mutual Approved steel deck.

**System Type B:** Base layer of insulation is mechanically attached to roof deck. Any subsequent layers are then adhered to base layer of insulation. Membrane is subsequently fully or partially adhered to insulation.

**All General and System Limitations shall apply.**

One or more layers of any of the following insulations.

<b>(Optional) Insulation for Base Layer (Table 2) (When applicable: Steel plate only =S, plastic plate only =P)</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>E'NRG'Y 2, 2 Plus, AC Foam I, II, Apache Pyrox, Hy-Therm AP, ISO 95+(Min. 1.2" thick)</b>	GAFTITE insulation screws and steel plates	<b>1:2</b>

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

<b>Insulation for Top Layer (Table 2)</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Dens-Deck (Min. ¼" thick)</b>	N/A	N/A

**Note:** Apply top layer of insulation in a full mopping of any approved mopping asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>. Please refer to Roofing Application Standard PA 117 for insulation attachment. Insulation listed as Base Layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

<b>Base Sheet:</b>	One ply of TriPly Ply 4, Ply 6 or #75 Base Sheet	Applied directly over the top layer of insulation. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
<b>Ply Sheet:</b>	(Optional) Two or more plies TriPly Ply 4 or Ply 6 sheet	Fully adhered in type III or IV of an approved asphalt at an application rate of 20-40 lbs./sq.
<b>Membrane:</b>	One or more plies of TP 4 Smooth, TP 4 Granule APP Modified Bitumen or TriPly SBS Modified Bitumen	Applied according to manufacturer's application instructions



Surfacing:

(Optional) Install one of the following:

1. Gravel or slag Applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
2. Karnak 97, AL MB Aluminum coating, GAF Premium Fibered Aluminum Roof Coating Applied at a rate of 1.5 gal./sq.
3. GAF WeatherCoat<sup>®</sup> Emulsion Applied at a rate of 3 gal./sq. (Torch Smooth applications only)
4. Karnak 169 Applied at a rate of 1.5-3.0 gal./sq.
5. AL MB Aluminum coating Applied at a rate of 1-2 gal./sq. (Torch Smooth applications only)
6. TriPly Mineral Surfaced Cap Sheet Adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Maximum Design Pressure:

-60 psf (See General Limitation #9)





**Membrane Type:** APP & SBS  
**Deck Type 2:** Steel, Insulated, New Construction and Re-Roof  
**Deck Description:** 18-22 ga. Factory Mutual Approved steel deck.  
**System Type C:** All layer of insulation are mechanically attached to roof deck. Membrane is subsequently fully or partially adhered to insulation.

**All General and System Limitations shall apply.**

One or more layers of any of the following insulations.

<b>(Optional) Insulation for Base Layer (Table 2)</b> (When applicable: Steel plate only =S, plastic plate only =P)	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
E'NRG'Y 2, 2 Plus, AC Foam I, II, Apache Pyrox, Hy-Therm AP, ISO 95+(Min. 1.2" thick)	N/A	N/A

**Note:** All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining e same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<b>Insulation for Top Layer (Table 2)</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Dens-Deck (Min. 1/4" thick)</b>	GAFTITE insulation screws and steel plates	1:2

<b>Base Sheet:</b>	One ply of TriPly Ply 4, Ply 6 or #75 Base Sheet	Applied directly over the top layer of insulation. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
<b>Ply Sheet:</b>	(Optional) Two or more plies TriPly Ply 4 or Ply 6 sheet	Fully adhered in type III or IV of an approved asphalt at an application rate of 20-40 lbs./sq.
<b>Membrane:</b>	One or more plies of TP 4 Smooth, TP 4 Granule APP Modified Bitumen or TriPly SBS Modified Bitumen	Applied according to manufacturer's application. instructions
<b>Surfacing:</b>	(Optional) Install one of the following:	
	1. Gravel or slag	Applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.
	2. GAF Premium Fibered Aluminum Roof Coating	Applied at a rate of 1.5 gal./sq.
	3. GAF WeatherCoat <sup>®</sup> Emulsion	Applied at a rate of 3 gal./sq. (Torch Smooth applications only)
	4. TriPly 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.
<b>Maximum Design Pressure:</b>	-60 psf (See General Limitation #9)	



**STEEL DECK SYSTEM LIMITATIONS:**

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117, calculations shall be signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.



## 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. **(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**



NOA No.: 05-0819.07  
Expiration Date: 05/10/11  
Approval Date: 12/22/05  
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