



**BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION**

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

NOTICE OF ACCEPTANCE (NOA)

**GAF Material Corporation
1361 Alps Road
Wayne, NJ 07470**

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by the BCCO and accepted by the Building Code and Product Review Committee to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The BCCO (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BCCO reserves the right to revoke this acceptance, if it is determined by BCCO that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the South Florida Building Code, 1994 Edition for Miami-Dade County or Florida Building Code.

DESCRIPTION: GAF Ruberoid® Modified Bitumen Roof System for Wood Decks.

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

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

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

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

This NOA consists of pages 1 through 40
The submitted documentation was reviewed by Frank Zuloaga, RRC.



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Expiration Date: 11/06/03
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ROOFING SYSTEM APPROVAL

| | |
|--------------------------------|---------------------------|
| Category: | Roofing |
| Sub-Category: | SBS/APP, Modified Bitumen |
| Deck Type: | Wood |
| Maximum Design Pressure | -75 psf |
| Fire Classification: | 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> |
|--|-----------------------------|----------------------------|---|
| GAF Asphalt Concrete Primer | 5, 55 gallons | ASTM D 41 | Asphalt concrete primer used to promote adhesion of asphalt in built-up roofing. |
| GAF Mineral Shield® Granules | 60 lb. bags | ASTM D 1863 | Granules for surfacing of exposed asphalt, cold process cement or emulsion. GAF Mineral Shield® Granules shall be used for flashing applications only. |
| GAF WeatherCoat® Emulsion | 5 gallons | ASTM 1227 | Surface coating for smooth surfaced roofs. |
| GAF Premium Fibered Aluminum Roof Coating | 1, 5 gallons | ASTM D 2824 | Fibered aluminum coating. |
| GAF Jetblak All Weather Plastic Cement | 1, 5 gallons | ASTM D 3019 ASTM D 3409 | Refined asphalt blended with a mineral stabilizer and fibers. Permits adhesion to wet and dry surfaces. |
| GAFGLAS #75® | 3 sq. roll 75 lb. roll | ASTM D 4601 | Asphalt impregnated and coated glass mat base sheet. |
| GAFGLAS #80 Ultima™ Base Sheet | 2 Sq. Roll 70 lbs./roll | ASTM D4601 | Asphalt impregnated and coated, fiberglass base sheet |
| GAFGLAS Ply 6® | 5 sq. roll 45 lb. roll □ | ASTM D 2178 | Type VI asphalt impregnated glass felt with asphalt coating. |
| GAFGLAS Flex Ply™ 6 | 5 sq. roll 45 lb. roll | ASTM D 2178 | Type VI asphalt impregnated glass felt with asphalt coating. |
| GAFGLAS Ply 4® | 5 sq. roll | ASTM D 2178 | Type IV asphalt impregnated glass felt with asphalt coating. |
| GAFGLAS® Mineral Surfaced Cap Sheet | 76 lb. roll | ASTM D 3909 | Asphalt coated, glass fiber mat cap sheet surfaced with mineral granules. |
| RUBEROID® Modified Bitumen Adhesive | 5 gallons | ASTM D 3019 Type III | Fiber reinforced, rubberized Adhesive |
| GAFGLAS® STRATAVENT® Eliminator Perforated | 39.37" (1 meter) Wide | ASTM D3672 ASTM D 4897 | Fiberglass base sheet coated on both sides with asphalt. Surfaced on the bottom side with mineral granules embedded in asphaltic coating with factory perforations. |



| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|---|-----------------------|---|---|
| GAFGLAS® Flashing | various | | Asphalt coated glass fiber mat flashing sheet available in three sizes. |
| GAFGLAS® STRATAVENT® Eliminator Perforated Nailable | 39.37" (1 meter) Wide | ASTM D3672 ASTM D 4897 | Fiberglass base sheet coated on both sides with asphalt. Surfaced on the bottom side with mineral granules embedded in asphaltic coating. |
| RUBEROID Modified Base Sheet | 3 sq. roll 67 lbs. | ASTM D4601, Type II, UL Type G2 BUR | Premium glass fiber reinforced SBS-modified base sheet |
| GAFTEMP® Isotherm R | Various | PA 110 | Polyisocyanurate foam insulation. |
| Tapered GAFTEMP® Isotherm R | Various | PA 110 | Tapered Polyisocyanurate foam insulation |
| GAFTEMP Isotherm RA | Various | PA 110 | Polyisocyanurate foam insulation |
| Tapered GAFTEMP Isotherm RA | Various | PA 110 | Tapered Polyisocyanurate foam insulation |
| GAFTEMP Isotherm RN | Various | PA 110 | Polyisocyanurate foam insulation |
| Tapered GAFTEMP Isotherm RN | Various | PA 110 | Tapered Polyisocyanurate foam insulation |
| GAFTEMP® Composite | Various | PA 110 | Polyisocyanurate foam insulation with high-density fiberboard or Permalite perlite insulation. |
| Tapered GAFTEMP® Composite | Various | PA 110 | Tapered Polyisocyanurate foam insulation with high-density fiberboard or Permalite perlite insulation. |
| GAFTEMP® Composite A | Various | PA 110 | Polyisocyanurate foam insulation with high-density fiberboard or Permalite perlite insulation. |
| Tapered GAFTEMP® Composite A | Various | PA 110 | Tapered Polyisocyanurate foam insulation with high-density fiberboard or Permalite perlite insulation. |
| GAFTEMP® Composite N | Various | PA 110 | Polyisocyanurate foam insulation with high-density fiberboard or Permalite perlite insulation. |
| Tapered GAFTEMP® Composite N | Various | PA 110 | Tapered Polyisocyanurate foam insulation with high-density fiberboard or Permalite perlite insulation. |
| GAFTEMP® Fiberboard | Various | PA 110 | Fiberboard insulation. |
| GAFTEMP® Permalite | Various | PA 110 | Perlite insulation board. |



| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|----------------------------------|------------------------|----------------------------|--|
| GAFTEMP Recover Board | 1/2" thick | PA 110 | Perlite recover board |
| GAFTEMP® High Density Fiberboard | Various | PA 110 | High-density wood fiberboard insulation. |
| Ruberoid® 20 | 1.5 sq. roll □ | ASTM D 6163 ASTM D 5147 | SBS modified asphalt base sheet and interply sheet reinforce with a glass fiber mat. |
| Ruberoid® Mop Granule | 1 sq. roll 103 lbs. | ASTM D 6222 ASTM D 5147 | Non-woven polyester mat coated with polymer modified asphalt and surfaced with mineral granules. |
| RUBEROID MOP Smooth | 1 sq. roll 87 lbs. | ASTM D 6298 ASTM D 5147 | Non-woven polyester mat coated with polymer-modified asphalt and smooth surfaced. |
| RUBEROID MOP PLUS | 1 sq. roll 102 lbs. | ASTM D 6163 ASTM D 5147 | Non-woven polyester mat coated with polymer modified asphalt and surfaced with mineral granules. |
| RUBEROID MOP 170FR | 1 sq. roll 103 lbs. | ASTM D 6164 ASTM D 5147 | Non-Woven polyester mat coated with fire retardant polymer modified asphalt and surfaced with mineral granules. |
| RUBEROID MOP FR | 1 sq. roll 105 lbs. | ASTM D 6164 ASTM D 5147 | Non-Woven polyester mat coated with fire retardant polymer modified asphalt and surfaced with mineral granules. |
| RUBEROID TORCH Smooth | 1 sq. roll 87 lbs. | ASTM D 5147 | Heavy duty, polyester reinforced, asphalt modified bitumen membrane, smooth surface. |
| RUBEROID TORCH Granule | 1 sq. roll 102 lbs. | ASTM D 5147 | Heavy duty, polyester reinforced, asphalt modified bitumen membrane, granule surface. |
| RUBEROID TORCH PLUS | ¾ sq. roll 93 lbs. | ASTM D 6222 ASTM D 5147 | Heavy duty, polyester reinforced, asphalt modified bitumen membrane, granule surface |
| RUBEROID TORCH FR | ¾ sq. roll 90 lbs. | ASTM D 6222 ASTM D 5147 | Heavy duty, polyester reinforced, coated with fire retardant asphalt modified bitumen membrane, granule surface. |
| RUBEROID 30 | 1 sq. roll 92 lbs. | ASTM D 6163 ASTM D 5147 | Non-woven fiberglass mat coated with polymer modified asphalt and surfaced with mineral granules. |



| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|---|------------------------------|--|---|
| RUBEROID 30 FR | 1 sq. roll 92 lbs. | ASTM D 6163 ASTM D 5147 | Non-woven fiberglass mat coated with fire retardant polymer modified asphalt and surfaced with mineral granules. |
| RUBEROID® ULTRACLAD® SBS | 1 sq. Roll 101 lbs. | ASTM D 5147 | Woven fiberglass mat coated with Polymer modified asphalt surfaced with aluminum, copper or stainless steel foil. |
| Vent Stacks (metal and plastic) | | PA 100(A) ASTM D 1929 ASTM D 635 | One-way valve vent used to relieve built-up pressure within the roof system. GAF Vent Stacks are available in metal or plastic. |
| GAF Aluminum Emulsion | 5 gallons | None | Mineral colloidal bituminous emulsion with reflective aluminum flakes |
| GAF Aluminum Roof Paint | 5 gallons | ASTM D2824, Type I | Non-fibered. Aluminum pigmented, asphalt roof coating |
| GAF Built-Up Roofing Asphalt | 100 lb. cartons, bulk | ASTM D312, Types I, II, III and IV | Interply mopping and surfacing asphalt |
| RUBEROID MOD Asphalt□ | 60 lb. kegs | | SEBS modified asphalt |
| RUBEROID MOD Asphalt L□ | 60 lb. kegs | | SEBS modified asphalt |
| RUBEROID MOD Asphalt P□ | 60 lb. kegs | | SEBS modified asphalt |
| GAFTEMP Tapered Isotherm R□ | Various | PA 110 | Tapered polyisocyanurate foam |
| GAFTEMP Tapered Isotherm RA□ | Various | PA 110 | Tapered polyisocyanurate foam |
| GAFTEMP Tapered Isotherm RN□ | Various | | Tapered polyisocyanurate foam |
| GAFTEMP GAFcant™ | Various | | Cut perlite board |
| GAFTEMP GAFEDGE™ Tapered Edge Strip | Various | | Tapered perlite board |
| GAFTEMP PERMALITE® Tapered Roof Insulation | Various | PA 110 | Tapered perlite board |
| GAFTEMP Recover Board | 1/2" thick, Various sizes | PA 110 | Perlite board |
| Shingle-Mate™ Underlayment | 4 sq. roll 30 lbs. | | Fiberglass reinforced shingle underlayment |



| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|-------------------------------------|------------------------|---------------------------|--|
| Tile-Mate Modified Base Sheet | 1.5 sq. roll | ASTM D 5147 | SBS modified asphalt base sheet and interply sheet reinforce with a glass fiber mat tile underlayment. |
| Tile-Mate Modified Cap | 1 sq. roll 103 lbs. | ASTM D 5147 | Non-woven polyester mat coated with polymer modified asphalt and surfaced with mineral granules tile underlayment. |
| Tile-Mate Modified Cap Plus | 1 sq. roll 102 lbs. | ASTM D 5147 | Non-woven polyester mat coated with polymer modified asphalt and surfaced with mineral granules tile underlayment. |
| GAFTITE® ASAP | 500 per box | PA 114 | Pre-assembled fastener and metal and plastic plates |
| RUBEROID® Modified Bitumen Adhesive | 5 gallons | ASTM D 3019 Type III | Fiber reinforced, rubberized Adhesive |

TRADE NAMES OF PRODUCTS MANUFACTURED BY OTHERS:

TABLE 2

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> | <u>Manufacturer</u> |
|------------------------------|-------------------|---------------------------|--|---|
| Pyrox□ | Various | PA 110 | Polyisocyanurate foam insulation□ | Apache Products Co. (With current NOA) |
| ACFoam I | Various | PA 110 | Polyisocyanurate foam insulation | Atlas Energy Products (With current NOA) |
| ACFoam II | Various | PA 110 | Polyisocyanurate foam insulation | Atlas Energy Products (With current NOA) |
| ISO 95+ Composite | | PA 110 | Polyisocyanurate / perlite ridged insulation | Firestone (With current NOA) |
| Asphalt | | ASTM D 312 | Type III or IV Hot asphalt bitumen adhesive | Generic (With current NOA) |
| Asphalt Primer | | ASTM D 41 | Asphalt Primer | Generic (With current NOA) |
| EPS | Various | PA 110 | Extruded polystyrene insulation | Generic (With current NOA) |
| High Density Wood Fiberboard | Various | PA 110 | Wood fiber insulation board | Generic (With current NOA) |
| Pelite/Urethane Composite | Various | PA 110 | Pelite / urethane composite board insulation | Generic (With current NOA) |
| Perlite Insulation | Various | PA 110 | Perlite insulation board | Generic (With current NOA) |
| Polyethylene | 4 mil min. | | Vapor barrier / Air barrier□ | Generic (With current NOA) |



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| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> | <u>Manufacturer</u> |
|--------------------------|-------------------|---------------------------|---|---|
| Red Rosin | Various | | Rosin paper for barrier layer on wood decks | Generic (With current NOA) |
| MB aluminum roof coating | | PA 121 | Aluminum roof coating | Grundy Industries (With current NOA) |
| Dens-Deck | Various | PA 110 | Gypsum insulation board. | Georgia Pacific (With current NOA) |
| ISO 95+ | Various | PA 110 | Polyisocyanurate foam insulation | Firestone Building Products Co. (With current NOA) |
| E'NRGY-2 | Various | PA 110 | Polyisocyanurate foam insulation | Johns Manville. (With current NOA) |
| ISORoc | Various | PA 110 | Polyisocyanurate foam / rockwool composite insulation | Johns Manville. (With current NOA) |
| Paroc Base Board | Various | PA 110 | Rockwool insulation | Partek, Inc. (With current NOA) |
| Paroc Cap Board | Various | PA 110 | Rockwool insulation | Partek, Inc. (With current NOA) |
| UltraGard | Various | PA 110 | Polyisocyanurate foam insulation | Johns Manville. (With current NOA) |
| 202 HS | | PA 121 | Roof coating | Thermo-Materials, Inc. (With current NOA) |
| Super Prep II | | PA 121 | Roof coating | Thermo-Materials, Inc. (With current NOA) |
| Structodeck | Various | PA 110 | High density wood fiber | Wood Fiber Industries (With current NOA) |

APPROVED FASTENERS:

TABLE 3

| Fastener Number | Product Name | Product Description | Dimensions | Manufacturer (With Current NOA) |
|------------------------|--|---|-------------------|--|
| 1. | GAFTITE® (Drill-Tec®) #12 Standard & #14 Heavy Duty Roofing Fastener | Insulation fastener for steel, wood & concrete decks. | | GAF Materials Corp. |



APPROVED FASTENERS:

TABLE 3

| Fastener Number | Product Name | Product Description | Dimensions | Manufacturer (With Current NOA) |
|------------------------|---|---|-----------------------|--|
| 2. | GAFTITE® (Drill-Tec®) ASAP | Pre-assembled GAFTITE Fasteners and metal and plastic plates. | | GAF Materials Corp. |
| 3. | GAFTITE® (Drill-Tec®) Base Sheet Fastener and Plate | Base sheet fastening assembly. | | GAF Materials Corp. |
| 4. | Galvalume Plates (Drill-Tec® Metal) | Round galvalume stress plates. | 3" and 3 ½" | GAF Materials Corp. |
| 5. | Polypropylene Plates (Drill-Tec® Plastic) | Round polypropylene stress plates. | 3" and 3 ½" | GAF Materials Corp. |
| 6. | Dekfast Fasteners #12, #14 & #15 | Insulation fastener for wood, steel and concrete decks | | Construction Fasteners Inc. |
| 7. | Dekfast Hex Plate | Galvalume hex stress plate. | 2 7/8" x 3 1/4" | Construction Fasteners Inc. |
| 8. | Dekfast Lock Plate | Polypropylene locking plate. | 3" x 3 1/4" | Construction Fasteners Inc. |
| 9. | #12 Roofgrip Fasteners | Insulation fastener for wood and steel. | | ITW Buildex Corp. |
| 10. | Metal Plate | Galvalume stress plate. | 3" round 3" square | ITW Buildex Corp. |
| 11. | Gearlok Plastic Plate | Polypropylene round plate | 3.2" | ITW Buildex Corp. |
| 12. | Glasfast Fastener | Insulation fastener assembly with recessed plastic plate | | Johns Manville |
| 13. | Olympic Fastener #12 & #14 | Insulation fastener | | Olympic Manufacturing Group, Inc. |
| 14. | Olympic Fastener ASAP | Pre-assembled Insulation fastener and plate | | Olympic Manufacturing Group, Inc. |
| 15. | Olympic Polypropylene | Polypropylene plastic plate | 3.25" round | Olympic Manufacturing Group, Inc. |
| 16. | Olympic G-2 | 3.5" round galvalume AZ55 steel plate | 3.5" round | Olympic Manufacturing Group, Inc. |



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APPROVED FASTENERS:

TABLE 3

| Fastener Number | Product Name | Product Description | Dimensions | Manufacturer (With Current NOA) |
|------------------------|---------------------|--|-------------------|--|
| 17. | Olympic Standard | 3" round galvalume AZ50 steel plate | 3" round | Olympic Manufacturing Group, Inc. |
| 18. | Insul-Fixx Fastener | Insulation fastener for steel and wood decks | | SFS/Stadler |
| 19. | Insul-Fixx S Plate | 3" round galvalume AZ50 steel plate | 3" round | SFS/Stadler |
| 20. | Insul-Fixx P Plate | 3" round polyethylene stress plate | 3" round | SFS/Stadler |
| 21. | Tru-Fast | Insulation fastener for steel and wood decks | | The Tru-Fast Corp. |
| 22. | Tru-Fast Plates | 3" round galvalume AZ55 steel plate | 3" round | The Tru-Fast Corp. |
| 23. | Tru-Fast Plates | Polyethylene plastic plate | 3" round | The Tru-Fast Corp. |

EVIDENCE SUBMITTED:

| <u>Test Agency</u> | <u>Test Identifier</u> | <u>Description</u> | <u>Date</u> |
|-------------------------------------|---|--------------------|-------------|
| Factory Mutual Research Corporation | Current Insulation Attachment Requirements□ | FMRC 1996 | 01.01.96 |
| Factory Mutual Research Corp. | Wind Uplift, FMRC 4470 - PA 114 | J.I. 1B9A8.AM | 09.04.97 |
| Factory Mutual Research Corp. | Wind Uplift, FMRC 4470 - PA 114 | J.I. 3D4Q2.AM | 04.30.97 |
| Trinity Engineering | Wind Uplift PA 114 | 4483.04 97-1 | 06.06.97 |
| 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 |



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APPROVED ASSEMBLIES

- Membrane Type:** SBS
- Deck Type II:** Wood, Insulated, New Construction or Reroof
- Deck Description:** 19/32" or greater plywood or wood plank
- System Type A (1):** Anchor sheet mechanically fastened, all layers of insulation adhered with approved asphalt.

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|---|-----------------------------------|-------------------------------------|
| 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, ISORoc, GAFTEMP® Tapered Minimum 1" thick | N/A | N/A |
| Wood Fiber, GAFTEMP® Fiberboard, High Density Wood Fiber, GAFTEMP® High Density Wood Fiber, GAFTEMP RecoverBoard Minimum 1/2" thick | N/A | N/A |
| Paroc, Perlite, GAFTEMP® Permalite Minimum 3/4" thick | N/A | N/A |
| Fiberglas Minimum 15/16" thick | N/A | N/A |
| Permalite Tapered Roof Insulation, GAFTEMP® Isotherm Tapered, Tapered Isotherm R, Tapered Isotherm RA, Tapered IsothermRN, GAFTEMP Composite Tapered, GAFTEMP Composite A Tapered, GAFTEMP Composite N Tapered Minimum 1/4" thick | N/A | N/A |

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

Anchor sheet: GAFGLAS® Ply 4®, Ply 6®, GAFGLAS Flex Ply™ 6, #75 Base Sheet, GAFGLAS #80 Ultima™ Base Sheet, STRATAVENT® Eliminator Perforated Nailable, RUBEROID Modified Base Sheet or RUBEROID® 20 base sheet applied to the deck with approved annular ring shank nails and tin caps at a fastener spacing of 9" o.c. at the lap staggered in two rows 12" in the field. Base sheet shall serve as anchor sheet for attachment of insulation



Base Sheet: (Optional) Install one ply of GAFGLAS® #75, GAFGLAS #80 ULTIMA™ Base Sheet, GAFGLAS® PLY 4®, GAFGLAS® PLY 6®, GAFGLAS Flex Ply™ 6, GAFGLAS STRATAVENT® Eliminator Perforated (laid dry), RUBEROID Modified Base Sheet or RUBEROID® 20 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 GAFGLAS PLY 4®, GAFGLAS® PLY 6® Ply or GAFGLAS Flex Ply 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One or more plies of RUBEROID® 20, RUBEROID 30, RUBEROID 30 FR RUBEROID MOP Smooth, Ruberoid® Mop 170 FR, Ruberoid® Mop Granule, RUBEROID MOP PLUS, RUBEROID MOP FR, RUBEROID ULTRACLAD®, fully adhered in an approved asphalt at an application rate of 25 lb./sq. ± 15%.

Surfacing: (Optional, required if RUBEROID MOP Smooth or RUBEROID 20 is top membrane) 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. GAFGLAS Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 25 lb./sq. ± 15%.

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



Membrane Type: APP

Deck Type II: Wood, Insulated, New Construction or Reroof

Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank

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

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|--|-----------------------------------|-------------------------------------|
| 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, ISORoc, GAFTEMP® Tapered Minimum 1" thick | N/A | N/A |
| Wood Fiber, GAFTEMP® Fiberboard, High Density Wood Fiber, GAFTEMP® High Density Wood Fiber, GAFTEMP RecoverBoard Minimum ½" thick | N/A | N/A |
| Paroc, Perlite, GAFTEMP® Permalite Minimum ¾" thick | N/A | N/A |
| Fiberglas Minimum 1 ⁵ / ₁₆ " thick | N/A | N/A |
| Permalite Tapered Roof Insulation, GAFTEMP® Isotherm Tapered, Tapered Isotherm R, Tapered Isotherm RA, Tapered IsothermRN, GAFTEMP Composite Tapered, GAFTEMP Composite A Tapered, GAFTEMP Composite N Tapered Minimum ¼" thick | N/A | N/A |

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

Anchor sheet: GAFGLAS® Ply 4®, Ply 6®, GAFGLAS Flex Ply™ 6, #75 Base Sheet, GAFGLAS #80 Ultima™ Base Sheet, STRATAVENT® Eliminator Perforated Nailable, RUBEROID Modified Base Sheet or RUBEROID® 20 base sheet applied to the deck with approved annular ring shank nails and tin caps at a fastener spacing of 9" o.c. at the lap staggered in two rows 12" in the field. Base sheet shall serve as anchor sheet for attachment of insulation



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Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 ULTIMA™ Base Sheet, GAFGLAS® PLY 4®, GAFGLAS® PLY 6®, GAFGLAS Flex Ply™ 6, GAFGLAS STRATAVENT® Eliminator Perforated (laid dry), RUBEROID Modified Base Sheet or RUBEROID® 20 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 GAFGLAS PLY 4®, GAFGLAS® PLY 6® Ply or GAFGLAS Flex Ply 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of Ruberoid® Torch Smooth, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule or Ruberoid® Torch FR torch 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, at 1.5 gal. /sq. or GAF WeatherCoat® Emulsion at 3 gal./sq. (Torch Smooth applications only)

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



Membrane Type: SBS

Deck Type 1I: Wood, Insulated, New Construction, or Reroof

Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank

System Type B: Optional base sheet laid dry; base layer of insulation mechanically fastened, optional top layer adhered with approved asphalt.

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ACFoam-I Minimum 1.3" thick | 1, 2, 6, 9, 13 or 14 | 1:3 ft ² |
| E'NRG'Y 2, GAFTEMP Isotherm RN Minimum 1.4" thick | 1, 2, 6, 9, 13, 14 or 21 | 1:3 ft ² |
| GAFTEMP® Isotherm R Minimum 1.3" thick | 1, 2, 6, 9, 13, 14 or 21 | 1:3 ft ² |
| E'NRG'Y 2 Plus, GAFTEMP Composite N Minimum 1.5" thick | 6, 9, 18 or 21 | 1:3 ft ² |
| Perlite, GAFTEMP® PERMALITE Minimum $\frac{3}{4}$ " thick | 1, 6, 9, 13 or 21 | 1:2 ft ² |
| Fiberglas Minimum $\frac{15}{16}$ " thick | 1, 2, 6, 9, 12, 13, 14, 18 or 21 | 1:2.67 ft ² |
| Wood Fiber, GAFTEMP® Fiberboard, GAFTEMP High Density Fiberboard Minimum 1" thick | 1, 2, 6, 13, 14 or 21 | 1:2 ft ² |

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. GAF requires either a ply of GAFGLAS STRATAVENT® perforated laid dry or a layer of GAFTEMP® PERMALITE or wood fiber overlay board on all isocyanurate applications.

| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| Any of the insulation listed for Base Layer, above. | | |
| High Density Wood Fiber, GAFTEMP® High Density Wood Fiber, GAFTEMP RecoverBoard Minimum $\frac{1}{2}$ " thick | N/A | N/A |
| Paroc Minimum $\frac{3}{4}$ " thick | N/A | N/A |



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Note: Optional top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: (Optional) Install one ply of GAFGLAS® #75, GAFGLAS #80 ULTIMA™ Base Sheet, GAFGLAS® PLY 4®, GAFGLAS® PLY 6®, GAFGLAS Flex Ply™ 6, GAFGLAS STRATAVENT® Eliminator Perforated (laid dry), RUBEROID Modified Base Sheet or RUBEROID® 20 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 GAFGLAS PLY 4®, GAFGLAS® PLY 6® Ply or GAFGLAS Flex Ply 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One or more plies of RUBEROID® 20, RUBEROID 30, RUBEROID 30 FR RUBEROID MOP Smooth, Ruberoid® Mop 170 FR, Ruberoid® Mop Granule, RUBEROID MOP PLUS, RUBEROID MOP FR, RUBEROID ULTRACLAD®, fully adhered in an approved asphalt at an application rate of 25 lb./sq. ± 15%.

Surfacing: (Optional, required if RUBEROID MOP Smooth or RUBEROID 20 is top membrane) 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. GAFGLAS Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 25 lb./sq. ± 15%.

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



Membrane Type: APP

Deck Type II: Wood, Insulated, New Construction, or Reroof

Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank

System Type B: Optional base sheet laid dry; base layer of insulation mechanically fastened, optional top layer adhered with approved asphalt.

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ACFoam-I Minimum 1.3" thick | 1, 2, 6, 9, 13 or 14 | 1:3 ft ² |
| E'NRG'Y 2, GAFTEMP Isotherm RN Minimum 1.4" thick | 1, 2, 6, 9, 13, 14 or 21 | 1:3 ft ² |
| GAFTEMP® Isotherm R Minimum 1.3" thick | 1, 2, 6, 9, 13, 14, 18 or 21 | 1:3 ft ² |
| E'NRG'Y 2 Plus, GAFTEMP Composite N Minimum 1.5" thick | 6, 9, 18 or 21 | 1:3 ft ² |
| Perlite, GAFTEMP® PERMALITE Minimum ¾" thick | 1, 6, 9, 13 or 21 | 1:2 ft ² |
| Fiberglas Minimum $\frac{15}{16}$" thick | 1, 2, 6, 9, 12, 13, 14, 18 or 21 | 1:2.67 ft ² |
| Wood Fiber, GAFTEMP® Fiberboard, GAFTEMP High Density Fiberboard Minimum 1" thick | 1, 2, 6, 13, 14 or 21 | 1:2 ft ² |

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. GAF requires either a ply of GAFGLAS STRATAVENT® perforated laid dry or a layer of GAFTEMP® PERMALITE or wood fiber overlay board on all isocyanurate applications.

| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| Any of the insulation listed for Base Layer, above. | | |
| High Density Wood Fiber, GAFTEMP® High Density Wood Fiber, GAFTEMP RecoverBoard Minimum ½" thick | N/A | N/A |
| Paroc Minimum ¾" thick | N/A | N/A |



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Note: Optional top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 ULTIMA™ Base Sheet, GAFGLAS® PLY 4®, GAFGLAS® PLY 6®, GAFGLAS Flex Ply™ 6, GAFGLAS STRATAVENT® Eliminator Perforated (laid dry), RUBEROID Modified Base Sheet or RUBEROID® 20 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, required when using RUBEROID 20) One or more plies GAFGLAS PLY 4®, GAFGLAS® PLY 6® Ply or GAFGLAS Flex Ply 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of Ruberoid® Torch Smooth, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule or Ruberoid® Torch FR torch 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, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq. (Torch Smooth applications only)

Maximum Design Pressure:

-45 psf;(See General Limitation #7)



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Membrane Type: SBS
Deck Type II: Wood, Insulated, New Construction, or Reroof
Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank
System Type C: One or more layers of insulation simultaneously attached; Base layer optional.

All General and System Limitations shall apply.

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|--|-----------------------------------|-------------------------------------|
| ACFoam-I, GAFTEMP® Isotherm R, GAFTEMP Isotherm RA, GAFTEMP, Isotherm RN Minimum 1.3" thick | N/A | N/A |
| E'NRG'Y 2, Minimum 1.4" thick | N/A | N/A |
| ISORoc, E'NRG'Y 2 Plus, GAFTEMP Composite A, GAFTEMP Composite N, GAFTEMP Composite Minimum 1.5" thick | N/A | N/A |
| Perlite, GAFTEMP® PERMALITE® Minimum ¾" thick | N/A | N/A |
| Fiberglas Minimum $\frac{15}{16}$ " thick | N/A | N/A |
| Wood Fiber, GAFTEMP® Fiberboard Minimum 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.

| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|---|-----------------------------------|-------------------------------------|
| ACFoam-I Minimum 1.3" thick | 1, 2, 6, 9, 13 or 14 | 1:3 ft ² |
| E'NRG'Y 2, GAFTEMP Isotherm RN Minimum 1.4" thick | 1, 2, 6, 12, 13 or 21 | 1:3 ft ² |
| GAFTEMP® Isotherm R, GAFTEMP Isotherm RA Minimum 1.3" thick | 1, 2, 6, 9, 13, 14, 18 or 21 | 1:3 ft ² |
| E'NRG'Y 2 Plus, GAFTEMP Composite N, GAFTEMP Composite, GAFTEMP Composite A Minimum 1.5" thick | 6, 9, 18 or 21 | 1:3 ft ² |
| Perlite, GAFTEMP® PERMALITE Minimum ¾" thick | 1, 6, 9, 13 or 21 | 1:2 ft ² |



Fiberglas

Minimum $\frac{15}{16}$ " thick

1, 2, 6, 9, 12, 13, 14, 18 or
21 1:2.67 ft²

Wood Fiber, GAFTEMP® Fiberboard, GAFTEMP High Density Fiberboard

Minimum 1" thick

1, 2, 6, 13, 14 or 21 1:2 ft²

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. GAF requires either a ply of GAFGLAS STRATAVENT® Eliminator Perforated laid dry or a layer of GAFTEMP® PERMALITE or wood fiber overlay board on all isocyanurate applications.

Base Sheet:

Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™ Base Sheet GAFGLAS® PLY 4®, GAFGLAS® PLY 6®, GAFGLAS FlexPly™ 6®, GAFGLAS® STRATAVENT® Perforated (laid dry), RUBEROID Modified Base Sheet or RUBEROID® 20 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. If base sheet is applied directly to polyisocyanurate insulation only a spot or strip mopped application as detailed in this approval the use of an overlay board is approved; see General Limitation #4.

Ply Sheet:

(Optional) One or more plies GAFGLAS PLY 4®, GAFGLAS® PLY 6® Ply or GAFGLAS Flex Ply 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane:

One or more plies of RUBEROID® 20 , RUBEROID 30, RUBEROID 30 FR RUBEROID MOP Smooth, Ruberoid® Mop 170 FR, Ruberoid® Mop Granule, RUBEROID MOP PLUS, RUBEROID MOP FR, RUBEROID ULTRACLAD®, fully adhered in an approved asphalt at an application rate of 20-40 lbs./sq.

Surfacing:

(Optional, required if RUBEROID MOP Smooth or RUBEROID 20 is top membrane) 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. GAFGLAS Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 20-40 lbs./sq.

Maximum Design

Pressure:

-45 psf;(See General Limitation #7)



Membrane Type: APP
Deck Type II: Wood, Insulated, New Construction, or Reroof
Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank
System Type C: One or more layers of insulation simultaneously attached; Base layer optional.

All General and System Limitations shall apply.

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|---|-----------------------------------|-------------------------------------|
| ACFoam-I, GAFTEMP® Isotherm R, GAFTEMP Isotherm RA, GAFTEMP, Isotherm RN Minimum 1.3" thick | N/A | N/A |
| E'NRG'Y 2, Minimum 1.4" thick | N/A | N/A |
| ISORoc, E'NRG'Y 2 Plus, GAFTEMP Composite A, GAFTEMP Composite N, GAFTEMP Composite, Multi-Max Minimum 1.5" thick | N/A | N/A |
| Perlite, GAFTEMP® PERMALITE®, GAFTEMP Recover Minimum $\frac{3}{4}$ " thick | N/A | N/A |
| Fiberglas Minimum $\frac{15}{16}$ " thick | N/A | N/A |
| Wood Fiber, GAFTEMP® Fiberboard Minimum 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.

| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|--|-----------------------------------|-------------------------------------|
| ACFoam-I Minimum 1.3" thick | 1, 2, 6, 9, 13, 14 or 21 | 1:3 ft ² |
| E'NRG'Y 2, GAFTEMP Isotherm RN Minimum 1.4" thick | 1, 2, 6, 9, 13, 14 or 21 | 1:3 ft ² |
| GAFTEMP® Isotherm R Minimum 1.3" thick | 1, 2, 6, 9, 13, 14, 18 or 21 | 1:3 ft ² |
| E'NRG'Y 2 Plus, GAFTEMP Composite N Minimum 1.5" thick | 6, 9, 18 or 21 | 1:3 ft ² |
| Perlite, GAFTEMP® PERMALITE Minimum $\frac{3}{4}$ " thick | 1, 6, 9, 13 or 21 | 1:2 ft ² |



Fiberglas
 Minimum ¹⁵/₁₆" thick 1, 2, 6, 9, 12, 13, 14, 18 or 21 1:2.67 ft²

Wood Fiber, GAFTEMP® Fiberboard, GAFTEMP High Density Fiberboard
 Minimum 1" thick 1, 2, 13, 14 or 21 1:2 ft²

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. GAF requires either a ply of GAFGLAS STRATAVENT® Eliminator Perforated laid dry or a layer of GAFTEMP® PERMALITE or wood fiber overlay board on all isocyanurate applications.

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™ Base Sheet GAFGLAS® PLY 4®, GAFGLAS® PLY 6®, GAFGLAS FlexPly™ 6®, GAFGLAS® STRATAVENT® Eliminator Perforated (laid dry), RUBEROID Modified Base Sheet or RUBEROID® 20 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. If base sheet is applied directly to polyisocyanurate insulation only a spot or strip mopped application as detailed in this approval the use of an overlay board is approved; see General Limitation #4.

Ply Sheet: (Optional, required when using RUBEROID 20) One or more plies GAFGLAS PLY 4®, GAFGLAS® PLY 6® Ply or GAFGLAS Flex Ply 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of Ruberoid® Torch Smooth, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule or Ruberoid® Torch FR torch 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, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq. (Torch Smooth applications only)

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



Membrane Type: SBS
Deck Type II: Wood, Insulated, New Construction, or Reroof
Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank
System Type D(1): Insulation and Base sheet simultaneously attached

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ACFoam-I, E'NRGY 2, GAFTEMP® Isotherm R, E'NRGY 2 Plus, GAFTEMP Isotherm RA, GAFTEMP Isotherm RN, GAFTEMP Composite, GAFTEMP Composite A, GAFTEMP Composite N loosely laid with firmly butted joints. Minimum thickness, 1.3". GAFTEMP High Density Fiberboard, GAFTEMP Fiberboard, minimum thickness 1". | | |

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™ Base Sheet, GAFGLAS® STRATAVENT® Eliminator Perforated or RUBEROID® 20 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 GAFGLAS PLY 4®, GAFGLAS® PLY 6® Ply or GAFGLAS Flex Ply 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

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

Surfacing: (Optional, required if RUBEROID MOP Smooth or RUBEROID 20 is top membrane) 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. GAFGLAS Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 20-40 lbs./sq.

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



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Membrane Type: APP
Deck Type II: Wood, Insulated, New Construction or Reroof
Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank
System Type D(1): Insulation and Base sheet simultaneously attached

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ACFoam-I, E'NRGY 2, GAFTEMP® Isotherm R, E'NRGY 2 Plus, GAFTEMP Isotherm RA, GAFTEMP Isotherm RN, GAFTEMP Composite, GAFTEMP Composite A, GAFTEMP Composite N loosely laid with firmly butted joints. Minimum thickness, 1.3". GAFTEMP High Density Fiberboard, GAFTEMP Fiberboard, minimum thickness 1". | | |

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™ Base Sheet, GAFGLAS® STRATAVENT® Eliminator Perforated or RUBEROID® 20 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, required when using RUBEROID 20) One or more plies GAFGLAS PLY 4®, GAFGLAS® PLY 6® Ply or GAFGLAS Flex Ply 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of Ruberoid® Torch Smooth, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule or Ruberoid® Torch FR torch 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, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq. (Torch Smooth applications only)

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



Membrane Type: SBS
Deck Type 1I: Wood, Insulated, New Construction, or Reroof
Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank
System Type D(2): Base sheet and insulation simultaneously attached.

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ACFoam-I, E'NRGY 2, GAFTEMP® Isotherm R, E'NRGY 2 Plus, GAFTEMP Isotherm RA, GAFTEMP Isotherm RN, GAFTEMP Composite, GAFTEMP Composite A, GAFTEMP Composite N loosely laid with firmly butted joints. Minimum thickness, 1.3" GAFTEMP High Density Fiberboard, GAFTEMP Fiberboard, minimum thickness 1" | | |

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™ Base Sheet, GAFGLAS® STRATAVENT® Eliminator Perforated or RUBEROID® 20 base sheet applied over the loose laid insulation with 2" side laps with GAFTITE #12 or #14 Screws and 3" Plates in 4 rows 12" o.c. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.

Ply Sheet: (Optional) One or more plies GAFGLAS PLY 4®, GAFGLAS® PLY 6® Ply or GAFGLAS Flex Ply 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

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

Surfacing: (Optional, required if RUBEROID MOP Smooth or RUBEROID 20 is top membrane) 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. GAFGLAS Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 20-40 lbs./sq.

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



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Membrane Type: APP
Deck Type II: Wood, Insulated, New Construction or Reroof
Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank
System Type D(2): Base sheet and insulation simultaneously attached.

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| 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. Minimum thickness, 1.3". GAFTEMP High Density Fiberboard, GAFTEMP Fiberboard, minimum thickness 1". | | |

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™ Base Sheet, GAFGLAS® STRATAVENT® Eliminator Perforated or RUBEROID® 20 base sheet applied over the loose laid insulation with 2" side laps with GAFTITE #12 or #14 Screws and 3" Plates in 4 rows 12" o.c. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.

Ply Sheet: (Optional, required when using RUBEROID 20) One or more plies GAFGLAS PLY 4®, GAFGLAS® PLY 6® Ply or GAFGLAS Flex Ply 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of Ruberoid® Torch Smooth, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule or Ruberoid® Torch FR torch 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, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq. (Torch Smooth applications only)

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



Membrane Type: SBS

Deck Type II: Wood, Insulated, New Construction, or Reroof

Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank

System Type D(3): Base sheet and insulation simultaneously mechanically fastened.

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

Insulation Layer

**Insulation Fasteners
(Table 3)**

**Fastener
Density/ft²**

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. Minimum thickness, 1.3" GAFTEMP High Density Fiberboard, GAFTEMP Fiberboard, minimum thickness 1".

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™ Base Sheet, GAFGLAS® STRATAVENT® Eliminator Perforated or RUBEROID® 20 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 8" 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.

Ply Sheet: (Optional) One or more plies GAFGLAS PLY 4®, GAFGLAS® PLY 6® Ply or GAFGLAS Flex Ply 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

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

Surfacing: (Optional, required if RUBEROID MOP Smooth or RUBEROID 20 is top membrane) 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. GAFGLAS Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 20-40 lbs./sq.

**Maximum Design
Pressure:**

-75 psf;(See General Limitation #7)



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Membrane Type: APP

Deck Type II: Wood, Insulated, New Construction or Reroof

Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank

System Type D(3): Base sheet and insulation simultaneously mechanically fastened.

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

Insulation Layer

**Insulation Fasteners
(Table 3)**

**Fastener
Density/ft²**

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. Minimum thickness, 1.3". GAFTEMP High Density Fiberboard, GAFTEMP Fiberboard, minimum thickness 1".

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™ Base Sheet, GAFGLAS® STRATAVENT® Eliminator Perforated or RUBEROID® 20 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 8" o.c. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.

Ply Sheet: (Optional, required when using RUBEROID 20) One or more plies GAFGLAS PLY 4®, GAFGLAS® PLY 6® Ply or GAFGLAS Flex Ply 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of Ruberoid® Torch Smooth, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule or Ruberoid® Torch FR torch 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, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq. (Torch Smooth applications only)

Maximum Design

Pressure: -75 psf (See General Limitation #7)



Membrane Type: SBS

Deck Type II: Wood, Insulated, New Construction, or Reroof

Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank

System Type D (4): Base sheet and insulation simultaneously mechanically fastened.

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| GAFTEMP® Isotherm R, GAFTEMP Isotherm RA, GAFTEMP Isotherm RN, GAFTEMP Composite, GAFTEMP Composite A, GAFTEMP Composite N loosely laid with firmly butted joints. Minimum thickness, 1.3" | | |

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™ Base Sheet, GAFGLAS® STRATAVENT® Eliminator Perforated or RUBEROID® 20 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 2 rows are equally spaced approximately 9" o.c. in the field of the sheet.

Membrane: One or more plies of RUBEROID® Mop Granule, RUBEROID® Mop 170 FR, RUBEROID® Mop Plus Granule, RUBEROID® Mop FR or RUBEROID UltraClad™ SBS in RUBEROID Modified Bitumen Adhesive at an application rate of 1.3-2 gal. /sq.

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



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Membrane Type: SBS

Deck Type II: Wood, Insulated, New Construction, or Reroof

Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank

System Type D(5): Base sheet and insulation simultaneously mechanically fastened.

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| 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. Minimum thickness 1.3". GAFTEMP High Density Fiberboard, GAFTEMP Fiberboard, minimum thickness 1" loosely laid with firmly butted joints. Minimum thickness 1" | | |

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™ Base Sheet, GAFGLAS® STRATAVENT® Eliminator Perforated or RUBEROID® 20 base sheet applied to the deck with 2" side laps with GAFTITE #12 or #14 Screws and 3" Plates in 4 rows 12" o.c. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.

Membrane: One or more plies of RUBEROID® Mop Granule, RUBEROID® Mop 170 FR, RUBEROID® Mop Plus Granule, RUBEROID® Mop FR or RUBEROID UltraClad™ SBS in RUBEROID Modified Bitumen Adhesive at an application rate of 1.3-2 gal./sq.

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



Membrane Type: SBS

Deck Type II: Wood, Insulated, New Construction, or Reroof

Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank

System Type D(5): Base sheet and insulation simultaneously mechanically fastened.

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| 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. Minimum thickness 1.3". GAFTEMP High Density Fiberboard, GAFTEMP Fiberboard, minimum thickness 1" loosely laid with firmly butted joints. Minimum thickness 1". | | |

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS #80 Ultima™ Base Sheet, GAFGLAS® STRATAVENT® Eliminator Perforated or RUBEROID® 20 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 8" 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.

Membrane: One or more plies of RUBEROID® Mop Granule, RUBEROID® Mop 170 FR, RUBEROID® Mop Plus Granule, RUBEROID® Mop FR or RUBEROID UltraClad™ SBS in RUBEROID Modified Bitumen Adhesive at an application rate of 1.3-2 gal./sq.

Maximum Design Pressure: -75 psf; (See General Limitation #7)



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Membrane Type: SBS
Deck Type 1: Wood, Non-insulated New Construction or Reroof
Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank decks
System Type E (1): Base sheet mechanically fastened to roof deck.

All General and System Limitations shall apply.

Base sheet: GAFGLAS® Ply 4®, Ply 6®, GAFGLAS Flex Ply™ 6, #75 Base Sheet, GAFGLAS #80 Ultima™ Base Sheet, STRATAVENT® Eliminator Perforated Nailable, RUBEROID Modified Base Sheet or RUBEROID® 20 base sheet applied to the deck with approved annular ring shank nails and tin caps at a fastener spacing of 9" o.c. at the lap staggered in two rows 12" in the field.

Ply Sheet: (Optional) One or more plies GAFGLAS PLY 4®, GAFGLAS® PLY 6® Ply or GAFGLAS Flex Ply 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One or more plies of RUBEROID MOP Smooth, Ruberoid® Mop 170 FR, Ruberoid® Mop Granule, Ruberoid® Mop Plus Granule, Ruberoid® 30 or Ruberoid® 30 FR or Ruberoid® Mop FR or RUBEROID UltraClad™ SBS in adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Or,

One or more plies of RUBEROID MOP Smooth, RUBEROID® Mop Granule, RUBEROID® Mop 170 FR, RUBEROID® Mop Plus Granule, RUBEROID® 30, RUBEROID® 30 FR or RUBEROID® Mop FR or RUBEROID UltraClad™ SBS in RUBEROID Modified Bitumen Adhesive at an application rate of 1-2 gal./sq.

Surfacing: (Optional, required if RUBEROID MOP Smooth or RUBEROID 20 is top membrane) 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. GAFGLAS Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 25 lb./sq. \pm 15%.

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



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Membrane Type: APP
Deck Type 1: Wood, Non-insulated New Construction or Reroof
Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank decks
System Type E (1): Base sheet mechanically fastened.

All General and System Limitations shall apply.

Base sheet: GAFGLAS® #75 Base Sheet, GAFGLAS #80 Ultima™ Base Sheet, GAFGLAS® Ply 4®, Ply 6®, GAFGLAS Flex Ply™ 6, STRATAVENT® Eliminator Perforated Nailable, RUBEROID Modified Base Sheet or RUBEROID® 20 base sheet applied to the deck with approved annular ring shank nails and tin caps at a fastener spacing of 9" o.c. at the lap staggered in two rows 12" in the field.

Ply Sheet: (Optional, required when using RUBEROID 20) One or more plies GAFGLAS PLY 4®, GAFGLAS® PLY 6® Ply or GAFGLAS Flex Ply 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of Ruberoid® Torch Smooth, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule or Ruberoid® Torch FR torch 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, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq. (Torch Smooth applications only)

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



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Membrane Type: SBS
Deck Type 1: Wood, Non-insulated New Construction or Reroof
Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank
System Type E (2): Base sheet mechanically fastened.

All General and System Limitations shall apply.

Base sheet: GAFGLAS® #75 Base Sheet, GAFGLAS #80 Ultima™ Base Sheet, GAFGLAS® STRATAVENT® Eliminator Perforated Nailable or RUBEROID® 20 base sheet applied to the deck with GAFTITE #12 or #14 Screws and 3" Plates 12" o.c. in 3 rows. 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 GAFGLAS PLY 4®, GAFGLAS® PLY 6® Ply or GAFGLAS Flex Ply 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One or more plies of RUBEROID MOP Smooth, Ruberoid® Mop 170 FR, Ruberoid® Mop Granule, Ruberoid® Mop Plus Granule, Ruberoid® 30 or Ruberoid® 30 FR or Ruberoid® Mop FR or RUBEROID UltraClad™ SBS in adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Or,

One or more plies of RUBEROID MOP Smooth, RUBEROID® Mop Granule, RUBEROID® Mop 170 FR, RUBEROID® Mop Plus Granule, RUBEROID® 30, RUBEROID® 30 FR or RUBEROID® Mop FR or RUBEROID UltraClad™ SBS in RUBEROID Modified Bitumen Adhesive at an application rate of 1-2 gal./sq.

Surfacing: (Optional, required if RUBEROID MOP Smooth or RUBEROID 20 is top membrane) 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. GAFGLAS Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 25 lb./sq. \pm 15%.

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



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Membrane Type: APP
Deck Type 1: Wood, Non-insulated New Construction or Reroof
Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank decks
System Type E (2): Base sheet mechanically fastened to deck.

All General and System Limitations shall apply.

Base sheet: GAFGLAS® #75 Base Sheet, GAFGLAS #80 Ultima™ Base Sheet, GAFGLAS® STRATAVENT® Eliminator Perforated Nailable or RUBEROID® 20 base sheet applied to the deck with GAFTITE #12 or #14 Screws and 3" Plates 12" o.c. in 3 rows. 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, required when using RUBEROID 20) One or more plies GAFGLAS PLY 4®, GAFGLAS® PLY 6® Ply or GAFGLAS Flex Ply 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of Ruberoid® Torch Smooth, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule or Ruberoid® Torch FR torch 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, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq. (Torch Smooth applications only)

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



Membrane Type: SBS
Deck Type 1: Wood, Non-insulated New Construction or Reroof
Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank
System Type E (3): Base sheet mechanically fastened to deck.

All General and System Limitations shall apply.

Base sheet: GAFGLAS® #75 Base Sheet, GAFGLAS #80 Ultima™ Base Sheet, GAFGLAS® STRATAVENT® Eliminator Perforated Nailable or RUBEROID® 20 base sheet applied to the deck with GAFTITE #12 or #14 Screws and 3" Plates, 12" o.c. in 4 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.

Ply Sheet: (Optional) One or more plies GAFGLAS PLY 4®, GAFGLAS® PLY 6® Ply or GAFGLAS Flex Ply 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One or more plies of RUBEROID MOP Smooth, Ruberoid® Mop 170 FR, Ruberoid® Mop Granule, Ruberoid® Mop Plus Granule, Ruberoid® 30 or Ruberoid® 30 FR or Ruberoid® Mop FR or RUBEROID UltraClad™ SBS in adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Or,

One or more plies of RUBEROID MOP Smooth, RUBEROID® Mop Granule, RUBEROID® Mop 170 FR, RUBEROID® Mop Plus Granule, RUBEROID® 30, RUBEROID® 30 FR or RUBEROID® Mop FR or RUBEROID UltraClad™ SBS in RUBEROID Modified Bitumen Adhesive at an application rate of 1-2 gal./sq.

Surfacing: (Optional, required if RUBEROID MOP Smooth or RUBEROID 20 is top membrane) 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. GAFGLAS Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 25 lb./sq. \pm 15%.

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



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Membrane Type: APP
Deck Type 1: Wood, Non-insulated New Construction or Reroof
Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank decks
System Type E(3): Base sheet mechanically fastened to deck.

All General and System Limitations shall apply.

Base sheet: GAFGLAS® #75 Base Sheet, GAFGLAS #80 Ultima™ Base Sheet, GAFGLAS® STRATAVENT® Eliminator Perforated Nailable or RUBEROID® 20 base sheet applied to the deck with GAFTITE #12 or #14 Screws and 3" Plates, 12" o.c. in 4 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.

Ply Sheet: (Optional, required when using RUBEROID 20) One or more plies GAFGLAS PLY 4®, GAFGLAS® PLY 6® Ply or GAFGLAS Flex Ply 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of Ruberoid® Torch Smooth, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule or Ruberoid® Torch FR torch 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, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq. (Torch Smooth applications only)

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



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Membrane Type: SBS

Deck Type 1: Wood, Non-insulated New Construction or Reroof

Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank

System Type E (4): Base sheet mechanically fastened to deck.

All General and System Limitations shall apply.

Base sheet: GAFGLAS® #75 Base Sheet, GAFGLAS #80 Ultima™ Base Sheet, GAFGLAS® STRATAVENT® Eliminator Perforated Nailable or RUBEROID® 20 base sheet applied to the deck with GAFTITE #12 or #14 Screws and 3" Plates 8" o.c. in 4 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.

Ply Sheet: (Optional) One or more plies GAFGLAS PLY 4®, GAFGLAS® PLY 6® Ply or GAFGLAS Flex Ply 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One or more plies of RUBEROID MOP Smooth, Ruberoid® Mop 170 FR, Ruberoid® Mop Granule, Ruberoid® Mop Plus Granule, Ruberoid® 30 or Ruberoid® 30 FR or Ruberoid® Mop FR or RUBEROID UltraClad™ SBS in adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Or,

One or more plies of RUBEROID MOP Smooth, RUBEROID® Mop Granule, RUBEROID® Mop 170 FR, RUBEROID® Mop Plus Granule, RUBEROID® 30, RUBEROID® 30 FR or RUBEROID® Mop FR or RUBEROID UltraClad™ SBS in RUBEROID Modified Bitumen Adhesive at an application rate of 1-2 gal./sq.

Surfacing: (Optional, required if RUBEROID MOP Smooth or RUBEROID 20 is top membrane) 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. GAFGLAS Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 25 lb./sq. \pm 15%.

Maximum Design Pressure: -75 psf;(See General Limitation #7)



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Membrane Type: APP
Deck Type 1: Wood, Non-insulated New Construction or Reroof
Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank decks
System Type E(4): Base sheet mechanically fastened to deck.

All General and System Limitations shall apply.

Base sheet: GAFGLAS® #75 Base Sheet, GAFGLAS #80 Ultima™ Base Sheet, GAFGLAS® STRATAVENT® Eliminator Perforated Nailable or RUBEROID® 20 base sheet applied to the deck with GAFTITE #12 or #14 Screws and 3" Plates 8" o.c. in 4 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.

Ply Sheet: (Optional, required when using RUBEROID 20) One or more plies GAFGLAS PLY 4®, GAFGLAS® PLY 6® Ply or GAFGLAS Flex Ply 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of Ruberoid® Torch Smooth, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule or Ruberoid® Torch FR torch 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, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq. (Torch Smooth applications only)

Maximum Design Pressure: -75 psf (See General Limitation #7)



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Membrane Type: SBS
Deck Type 1: Wood, Non-insulated
Deck Description: $\frac{19}{32}$ " or greater plywood or wood plank
System Type E-2: RUBEROID® Tile Underlayment, Base Sheet mechanically attached.

All General and System Limitations shall apply.

Anchor sheet: ASTM D 2626, GAFGLAS® GAFGLAS #80 Ultima™ Base Sheet, STRATAVENT® Nailable, RUBEROID® 20 base sheet or Tile-Mate Modified Base Sheet applied with a minimum 2" side lap and a minimum 6" end lap. Base sheet may be applied at a right angle (90°) to the slope of the deck with approved annular ring shank nails and tin caps at a fastener spacing of 6" o.c. at the 2" side lap, and two 12" o.c. staggered rows along the center of the sheet.

Ply Sheet: (Optional) One or more plies GAFGLAS PLY 4®, or GAFGLAS® PLY 6® Ply or GAFGLAS FlexPly™ 6 sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..

Membrane: One ply RUBEROID® MOP, RUBEROID® MOP PLUS, Tile-Mate Modified Cap or Tile-Mate Modified Cap Plus, membrane may be applied at a right angle (90°) to the slope of the deck* adhered in a full mopping of Type IV asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. Membrane shall be backnailed to deck with approved annular ring shank nails and tin caps at a maximum fastener spacing of 6" o.c. No nails or tincaps shall be exposed

* Membrane may also be installed parallel to the slope of the roof (i.e. strapping). If membrane is strapped, then anchor sheet and ply sheet must also be strapped.

Maximum Design Pressure: Must comply with Roofing Application Standard RAS 115.

Maximum Fire Classification: Must comply with Tile System Fire Classification

Maximum Slope: Must Comply with Roofing Application Standard RAS 118, RAS 119, RAS 120



WOOD DECK SYSTEM LIMITATIONS: □

1. A slip sheet is required with Ply 4® Flex Ply™ 6 and Ply 6® when used as a mechanically fastened base or anchor sheet. □
2. ½ Type X gypsum board is acceptable to be installed directly over the wood deck.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**

END OF THIS ACCEPTANCE



NOA No: 01-1120.06
Expiration Date: 11/06/03
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