GAF
1 Campus Drive
Parsippany, NJ 07054

**SCOPE:**
This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

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

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

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

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

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

This NOA renews and revises NOA No. 15-1020.01 and consists of pages 1 through 67. The submitted documentation was reviewed by Jorge L. Acebo.
### Roofing System Approval

**Category:** Roofing  
**Sub-Category:** Modified Bitumen  
**Material:** APP/SBS  
**Deck Type:** Wood  
**Maximum Design Pressure:** -105 psf.

#### Trade Names of Products Manufactured or Labeled by Applicant:

<table>
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<tr>
<th>Product</th>
<th>Dimensions</th>
<th>Test Specification</th>
<th>Product Description</th>
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</thead>
<tbody>
<tr>
<td>GAFGLAS® Ply 4</td>
<td>39.37” (1 meter)</td>
<td>ASTM D2178</td>
<td>Smooth surfaced asphaltic ply sheet reinforced with fiberglass mat.</td>
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<td>GAFGLAS® FlexPly™ 6</td>
<td>39.37” (1 meter)</td>
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<td>Smooth surfaced asphaltic ply sheet reinforced with fiberglass mat.</td>
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<td>GAFGLAS® #75 Base Sheet</td>
<td>39.37” (1 meter)</td>
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<td>Smooth asphaltic base or base/ply sheet reinforced with fiberglass mat.</td>
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<td>Tri-Ply® #75 Base Sheet</td>
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<td>GAFGLAS® #80 Ultima™ Base Sheet</td>
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<td>Smooth asphaltic base or base/ply sheet reinforced with fiberglass mat.</td>
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<td>GAFGLAS® Stratavent® Perforated Venting Base Sheet</td>
<td>39.37” (1 meter)</td>
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<td>Smooth surfaced asphaltic perforated venting base sheet reinforced with fiberglass mat.</td>
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<tr>
<td>GAFGLAS® Stratavent® Nailable Venting Base Sheet</td>
<td>39.37” (1 meter)</td>
<td>ASTM D4897</td>
<td>Smooth surfaced asphaltic nailable venting base sheet reinforced with fiberglass mat. Bottom side surfaced with granules.</td>
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<td>Ruberoid® HW 25 Smooth</td>
<td>39.37” (1 meter)</td>
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<td>Smooth surfaced torch applied SBS base or ply sheet reinforced with a fiberglass mat.</td>
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<tr>
<td>Ruberoid® HW Smooth</td>
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<td>Smooth surfaced torch applied SBS base or ply sheet reinforced with a polyester mat.</td>
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<td>Ruberoid® HW Granule</td>
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<td>Ruberoid® HW Granule FR</td>
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<td>Fire retardant granule surfaced heat-welded SBS cap sheet reinforced with a polyester mat.</td>
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<td>Ruberoid® HW Plus Granule FR</td>
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<td>Ruberoid® HW Plus Granule FR</td>
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<td>Ruberoid® Torch Smooth</td>
<td>39.37&quot; (1 meter) Wide</td>
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<td>Smooth surfaced torch applied APP base or ply sheet reinforced with a polyester mat.</td>
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<td>Tri-Ply® APP Smooth Membrane</td>
<td>39.37&quot; (1 meter) Wide</td>
<td>ASTM D6222</td>
<td>Smooth surfaced torch applied APP cap, base or ply sheet reinforced with a polyester mat.</td>
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<td>Ruberoid® 20 Smooth</td>
<td>39.37&quot; (1 meter) Wide</td>
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<td>SBS polymer-modified asphalt base or ply sheet reinforced with a fiberglass mat.</td>
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<td>Ruberoid® 30 Granule</td>
<td>39.37&quot; (1 meter) Wide</td>
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<td>Granule surfaced mop applied SBS cap sheet reinforced with a fiberglass mat.</td>
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<tr>
<td>Ruberoid® 30 Granule FR</td>
<td>39.37&quot; (1 meter) Wide</td>
<td>ASTM D6163</td>
<td>Fire retardant granule surfaced mop applied SBS cap sheet reinforced with fiberglass mat.</td>
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<td>Ruberoid® Mop Granule</td>
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<td>Tri-Ply® SBS Granule Cap Sheet</td>
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<td>Intec Flex PRF</td>
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<td>Ruberoid® Mop Smooth</td>
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<td>ASTM D6164</td>
<td>Smooth surfaced mop applied SBS base sheet reinforced with a polyester mat.</td>
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<td>Ruberoid® Mop Smooth 1.5</td>
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<td>ASTM D6164</td>
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<td>Ruberoid® Mop Plus Smooth</td>
<td>39.37&quot; (1 meter)</td>
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<td>Smooth surfaced mop applied SBS base or ply sheet reinforced with a polyester mat.</td>
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<td>Ruberoid® Mop Plus Granule</td>
<td>39.37&quot; (1 meter)</td>
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<td>Granule surfaced mop applied SBS cap sheet reinforced with a polyester mat.</td>
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<tr>
<td>Ruberoid® Mop Plus Granule FR</td>
<td>39.37&quot; (1 meter)</td>
<td>ASTM D6164</td>
<td>Fire retardant granule surfaced mop applied SBS cap sheet reinforced with a polyester mat.</td>
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<tr>
<td>Ruberoid® EnergyCap™ Mop Plus Granule FR</td>
<td>39.37&quot; (1 meter)</td>
<td>ASTM D6164</td>
<td>Fire retardant granule surfaced mop applied SBS cap sheet reinforced with a polyester mat.</td>
</tr>
<tr>
<td>Ruberoid® EnergyCap™ 30 Granule FR</td>
<td>39.37&quot; (1 meter)</td>
<td>ASTM D6163</td>
<td>Fire retardant granule surfaced mop applied SBS cap sheet reinforced with a polyester mat.</td>
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<tr>
<td>GAFGLAS® Mineral-Surfaced Cap Sheet</td>
<td>39.37&quot; (1 meter)</td>
<td>ASTM D3909</td>
<td>Granule surfaced asphaltic cap sheet reinforced with fiberglass mat.</td>
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<tr>
<td>Tri-Ply® BUR Granule Cap Sheet</td>
<td>39.37&quot; (1 meter)</td>
<td>ASTM D3909</td>
<td>Granule surfaced asphaltic cap sheet reinforced with a fiberglass mat.</td>
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<tr>
<td>TOPCOAT® Membrane</td>
<td>1, 5 or 55 gallons</td>
<td>ASTM D6083</td>
<td>Water based elastomeric coating.</td>
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<tr>
<td>United Coatings™ Roof Mate TCM Coating</td>
<td>1, 5 or 55 Gallons</td>
<td>ASTM D6083</td>
<td>Water-based elastomeric coating.</td>
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<tr>
<td>TOPCOAT® Surface Seal SB</td>
<td>5 or 55 gallons</td>
<td>ASTM D6083</td>
<td>Solvent based thermoplastic rubber sealant designed to protect and restore aged roof surfaces and to increase roof reflectivity.</td>
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<tr>
<td>United Coatings™ Surface Seal SB Roof Coating</td>
<td>5 or 55 Gallons</td>
<td>ASTM D6083</td>
<td>Solvent-based thermoplastic rubber sealant designed to protect and restore aged roof surfaces and to increase roof reflectivity.</td>
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<tr>
<td>TOPCOAT® MB Plus</td>
<td>5 or 55 gallons</td>
<td>Proprietary</td>
<td>Water based, low VOC primer used to block asphalt bleed-through.</td>
</tr>
<tr>
<td>United Coatings™ Roof Mate MB Plus Coating</td>
<td>5 or 55 Gallons</td>
<td>Proprietary</td>
<td>Water based, low VOC primer designed to block asphalt bleed-through.</td>
</tr>
<tr>
<td><strong>Product</strong></td>
<td><strong>Dimensions</strong></td>
<td><strong>Test Specification</strong></td>
<td><strong>Product Description</strong></td>
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<tr>
<td>FireOut™ Fire Barrier Coating</td>
<td>5 or 55 gallons</td>
<td>Proprietary</td>
<td>Low VOC, water-based fire barrier coating.</td>
</tr>
<tr>
<td>Flex Seal™</td>
<td>1, 5 gallons or 1 qt. tube</td>
<td>TAS 139</td>
<td>Solvent-based elastomeric sealant.</td>
</tr>
<tr>
<td>VersaShield® Fire-Resistant Roof Deck Protection</td>
<td>12” x 100’ rolls</td>
<td>ASTM D226</td>
<td>Non-asphaltic fiberglass-based underlayment and /or fire barrier.</td>
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<tr>
<td>VersaShield® Solo™ Fire-Resistant Slip Sheet</td>
<td>42” roll wide, 100 ft.</td>
<td>ASTM D146, D828, D4869, D6757</td>
<td>Non-asphaltic, fire resistant fiberglass underlayment</td>
</tr>
<tr>
<td>Matrix™ 102 SBS Membrane Adhesive</td>
<td>3, 5 or 55 gallons</td>
<td>ASTM D3019</td>
<td>Fiber reinforced rubberized cold-applied adhesive for modified bitumen roof systems.</td>
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**APPROVED INSULATIONS:**

<table>
<thead>
<tr>
<th><strong>Product Name</strong></th>
<th><strong>Product Description</strong></th>
<th><strong>Manufacturer</strong> (With Current NOA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EnergyGuard™ Polyiso Insulation</td>
<td>Polyisocyanurate foam insulation</td>
<td>GAF</td>
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<tr>
<td>EnergyGuard™ Tapered Polyiso Insulation</td>
<td>Polyisocyanurate foam insulation</td>
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<td>EnergyGuard™ RA Polyiso Insulation</td>
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<td>EnergyGuard™ RH Polyiso Insulation</td>
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<td>EnergyGuard™ RH Tapered Polyiso Insulation</td>
<td>Polyisocyanurate foam insulation</td>
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<td>EnergyGuard™ RN Polyiso Insulation</td>
<td>Polyisocyanurate foam insulation</td>
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<td>EnergyGuard™ Perlite Recover Board</td>
<td>Perlite recover board</td>
<td>GAF</td>
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<tr>
<td>EnergyGuard™ Perlite Roof Insulation</td>
<td>Perlite insulation board</td>
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<tr>
<td>EnergyGuard™ RA Composite Polyiso Insulation</td>
<td>Polyisocyanurate foam insulation with high density fiberboard or perlmalite</td>
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<tr>
<td>Structodek® High Density Fiberboard Roof Insulation</td>
<td>High density fiberboard</td>
<td>Blue Ridge Fiberboard, Inc.</td>
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<tr>
<td>SECUROCK® Gypsum-Fiber Roof Board</td>
<td>Gypsum board</td>
<td>United States Gypsum Corp.</td>
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<tr>
<td>SECUROCK® Glass-Mat Roof Board</td>
<td>Gypsum board</td>
<td>United States Gypsum Corp.</td>
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<tr>
<td>DensDeck® Roof Board</td>
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<tr>
<td>DensDeck® Prime Roof Board</td>
<td>Gypsum board</td>
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# APPROVED FASTENERS:

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<th>Fastener Number</th>
<th>Product Name</th>
<th>Product Description</th>
<th>Dimensions</th>
<th>Manufacturer (With Current NOA)</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Drill-Tec™ #12 Fastener</td>
<td>Phillips head, modified buttress thread, pinch point, carbon steel fastener for use in steel or wood decks. With CR-10 coating. Available with a pinch point or drill point.</td>
<td>#12 x 8&quot; Max. Length #3 Phillips head.</td>
<td>GAF</td>
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<tr>
<td>2.</td>
<td>Drill-Tec™ #14 Fastener</td>
<td>Truss head, self-drilling, pinch point, high thread fastener for use in steel, wood or concrete decks.</td>
<td>#14 x 16&quot; Max. Length #3 Phillips head.</td>
<td>GAF</td>
</tr>
<tr>
<td>3.</td>
<td>Drill-Tec™ XHD Fastener</td>
<td>Truss head, self-drilling, pinch point, high thread fastener for use in wood or steel decks. Carbon steel extra heavy duty fastener used in steel decks.</td>
<td>#15 x 16&quot; Max. Length #3 Phillips head.</td>
<td>GAF</td>
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<tr>
<td>4.</td>
<td>Drill-Tec™ 3” Steel Plate</td>
<td>Round Galvalume® steel stress plate with reinforcing ribs and recessed for use with Drill-Tec™ fasteners.</td>
<td>3” Round</td>
<td>GAF</td>
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<tr>
<td>5.</td>
<td>Drill-Tec™ 3” Standard Steel Plate</td>
<td>Galvalume® coated steel stress plate for use with approved Drill-Tec™ fasteners.</td>
<td>3” Round</td>
<td>GAF</td>
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<td>6.</td>
<td>Drill-Tec™ ASAP 3S</td>
<td>Drill-Tec™ #12 fastener with Drill-Tec™ 3” Standard Steel Plate.</td>
<td>#12 x 8&quot; Max. Length #3 Phillips head with 3” Round plate 3” square; .017” thick.</td>
<td>GAF</td>
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<td>7.</td>
<td>Drill-Tec™ AccuTrac® Flat Plate</td>
<td>A2-SS aluminized steel plate for use with Drill-Tec™ fasteners.</td>
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<td>GAF</td>
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<td>8.</td>
<td>Drill-Tec™ AccuTrac® Recessed Plate</td>
<td>Galvalume® steel plate with recess for use with Drill-Tec™ fasteners.</td>
<td>3” square; .017” thick.</td>
<td>GAF</td>
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<td>9.</td>
<td>Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat)</td>
<td>Round Galvalume® plated steel stress plate with reinforcing ribs for use with Drill-Tec™ fasteners.</td>
<td>3” Round</td>
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APPROVED ASSEMBLIES

Membrane Type: SBS
Deck Type 1I: Wood, Insulated
Deck Description: Min. 19/32” or greater plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type A(1): All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently fully adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Roof Deck Protection or VersaShield® Solo™ Fire-Resistant Slip Sheet.

Anchor sheet: GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Stratavent® Nailable Venting Base Sheet, Ruberoid® 20 Smooth, Ruberoid® HW Smooth or Ruberoid® HW 25 Smooth base sheet mechanically fastened to deck as described below.

Fastening Option #1: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above anchor sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9” o.c. at the lap staggered and in two rows 18” o.c. in the field.

(Maximum Design Pressure –45 psf. See General Limitation #9)

Fastening Option #2: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above anchor sheets attached to deck with Drill-Tec™ #12 Fastener, Drill-Tec™ #14 Fastener or Drill-Tec™ XHD Fastener and Drill-Tec™ 3” Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 12” o.c. in 3 rows. One row is in the 2” side lap. The other rows are equally spaced approximately 12.5” o.c. in the field of the sheet.

(Maximum Design Pressure –45 psf. See General Limitation #9)

Fastening Option #3: GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above anchor sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9” o.c. at the 4” lap staggered and in two rows 9” o.c. in the field.

(Maximum Design Pressure –52.5 psf. See General Limitation #7)

Fastening Option #4: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above anchor sheets attached to deck with Drill-Tec™ #12 Fastener, Drill-Tec™ #14 Fastener or Drill-Tec™ XHD Fastener and Drill-Tec™ 3” Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 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.

(Maximum Design Pressure –45 psf. See General Limitation #9)

Fastening Option #5: GAFGLAS® #80 Ultima™ Base Sheet, Ruberoid® 20 Smooth, Ruberoid® Mop Smooth base sheet attached to deck approved annular ring shank nails and 3” inverted Drill-Tec™ 3” Steel Plate at a fastener spacing of 9” o.c. at the 4” lap staggered in two rows 9” in the field.

(Maximum Design Pressure –60 psf. See General Limitation #7)
Fastening Option #6: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above anchor sheets attached to deck with Drill-Tec™ #12 Fastener, Drill-Tec™ #14 Fastener or Drill-Tec™ XHD Fastener and Drill-Tec™ 3” Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 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.

(Maximum Design Pressure –45 psf. See General Limitation #9)

One or more layers of any of the following insulations.

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<th>Insulation Layer</th>
<th>Insulation Fasteners (Table 3)</th>
<th>Fastener Density/ft²</th>
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<tr>
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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® Perforated Venting Base Sheet laid dry or a layer of EnergyGuard™ Perlite Roof Insulation or wood fiber overlay board on all polyisocyanurate applications.

Base Sheet: (Optional) Install one ply of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet GAFGLAS® FlexPly™ 6, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® 20 Smooth, Ruberoid® HW Smooth or Ruberoid® HW 25 Smooth 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).

OR

GAFGLAS® Stratavent® Perforated Venting Base Sheet loose-laid dry.

Ply Sheet: (Optional, required over GAFGLAS® Stratavent® Perforated Venting Base Sheet loose-laid dry) One or more plies GAFGLAS® Ply 4, GAFGLAS® FlexPly™ 6, GAFGLAS® #80 Ultima™ Base Sheet, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® 20 Smooth adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
**Membrane:**


**Surfacing:**

Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of Approved asphalt at 60 lbs./sq.

2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ 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.

3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat. OR

   TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq. (to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.

4. Fiber Aluminum Roof Coating.

**Maximum Design Pressure:**

See Fastening Options
Membrane Type: APP/SBS Heat Weld

Deck Type 1I: Wood, Insulated

Deck Description: Min. 19/32” or greater plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.

System Type A(2): Anchor sheet mechanically fastened, all layers of insulation adhered with approved asphalt.

All General and System Limitations shall apply.

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Roof Deck Protection, VersaShield® Solo™ Fire-Resistant Slip Sheet, DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, or SECUROCK® Glass-Mat Roof Board.

Anchor sheet: GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Stratavent® Nailable Venting Base Sheet, Ruberoid® 20 Smooth, Ruberoid® HW Smooth or Ruberoid® HW 25 Smooth base sheet mechanically fastened to deck as described below;

Fastening Option #1: GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above anchor sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9” o.c. at the lap staggered and in two rows 18” o.c. in the field. Not for use with DensDeck or SECUROCK Fire Barrier

(Maximum Design Pressure –45 psf. See General Limitation #9)

Fastening Option #2: GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above anchor sheets attached to deck with Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener and Drill-Tec™ 3” Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 12” o.c. in 3 rows. One row is in the 2” side lap. The other rows are equally spaced approximately 12.5” o.c. in the field of the sheet.

(Maximum Design Pressure –45 psf. See General Limitation #9)

Fastening Option #3: GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, or any of above anchor sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9” o.c. at the 4” lap staggered and in two rows 9” o.c. in the field. Not for use with DensDeck or SECUROCK Fire Barrier

(Maximum Design Pressure –52.5 psf. See General Limitation #7)

Fastening Option #4: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above anchor sheets attached to deck with Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener and Drill-Tec™ 3” Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 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.

(Maximum Design Pressure –45 psf. See General Limitation #9)
Fastening Option #5: GAFGLAS® #80 Ultima™ Base Sheet, Ruberoid® 20 Smooth, Ruberoid® Mop Smooth base sheet attached to deck approved annular ring shank nails and 3” inverted Drill-Tec™ 3” Steel Plate at a fastener spacing of 9” o.c. at the 4” lap staggered in two rows 9” in the field.

Not for use with DensDeck and SECUROCK Fire Barrier

(Maximum Design Pressure – 60 psf. See General Limitation #7)

Fastening Option #6: GAFGLAS® #75 Base Sheet, Tri-Ply #75 Base Sheet, or any of above anchor sheets attached to deck with Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener and Drill-Tec™ 3” Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 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.

(Maximum Design Pressure – 45 psf. See General Limitation #9)

One or more layers of any of the following insulations.

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<td>Structodek® High Density Fiber Board, EnergyGuard™ Perlite Recover Board Minimum ½” thick</td>
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<td>EnergyGuard™ Perlite Roof Insulation Minimum ¾” thick</td>
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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® Perforated Venting Base Sheet laid dry or a layer of EnergyGuard™ Perlite Roof Insulation or wood fiber overlay board on all polyisocyanurate applications.

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Ply 4, GAFGLAS® FlexPly™ 6, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid Mop Plus Smooth, Ruberoid® 20 Smooth, Ruberoid® HW Smooth or Ruberoid® HW 25 Smooth 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).

OR

GAFGLAS® Stratavent® Perforated Venting Base Sheet loose-laid dry.
Ply Sheet: (Optional except over Ruberoid® Mop Smooth, Ruberoid® 20 Smooth, Ruberoid® HW Smooth or Ruberoid® HW 25 Smooth or GAFGLAS® Stratavent® Perforated Venting Base Sheet loose-laid dry) One or more plies GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6 or GAFGLAS® #80 Ultima™ Base Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or Ruberoid® Torch Smooth or Tri-Ply® APP Smooth Membrane torch applied according to manufacturer’s application instructions (Ruberoid® Torch Smooth or Tri-Ply® APP Smooth Membrane not to be used over GAFGLAS® Stratavent® Perforated Venting Base Sheet).


Surfacing: **Optional on granular surfaced membranes; required for smooth membranes.** Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of Approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® Mineral Surfaced Cap Sheet or GAFGLAS® EnergyCap™ 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.
3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat. OR TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq.(to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.

**Maximum Design Pressure:** See Fastening Options
Membrane Type: SBS
Deck Type 1I: Wood, Insulated
Deck Description: Min. 15/32” thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type A(3): All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently fully adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.

Anchor sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.

Fastening Option #1: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –45 psf, See General Limitation #7)

Fastening Option #2: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #3: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #4: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –67.5 psf, See General Limitation #7)

Fastening Option #5: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows.
(Maximum Design Pressure –75 psf, See General Limitation #7)

One or more of any of the following.
Base Insulation Layer Insulation Fasteners
EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RH Tapered Polyiso Insulation
Minimum 1” thick N/A

[Image: MIAMI DADE COUNTY APPROVED]
Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft²
---|---|---
EnergyGuard™ Perlite Roof Insulation Minimum ⅜” thick | N/A | N/A
Structodek® High Density Fiber Board Roof Insulation Minimum ¼” thick | N/A | N/A
SECUROCK® Gypsum-Fiber Roof Board, DensDeck® Prime Minimum ¼” thick | N/A | N/A

Note: All insulation shall be adhered in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet or Tri-Ply® #75 Base Sheet. Adhered 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: Ruberoid® 20 Smooth adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.


Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

2. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat. OR
TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq.(to be used as a primer) followed by
TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.

3. Fiber Aluminum Roof Coating.

Maximum Design Pressure: See Fastening Options
Membrane Type: SBS
Deck Type II: Wood, Insulated
Deck Description: Min. 15/32” thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type A(4): All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently fully adhered to insulation.

All General and System Limitations shall apply.
Fire Barrier: FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.
Fastening Option #1: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –45 psf, See General Limitation #7)
Fastening Option #2: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –52.5 psf, See General Limitation #7)
Fastening Option #3: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –52.5 psf, See General Limitation #7)
Fastening Option #4: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –67.5 psf, See General Limitation #7)
Fastening Option #5: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. (Maximum Design Pressure –75 psf, See General Limitation #7)

One or more of the any of the following insulations.
Base Insulation Layer Insulation Fasteners Fastener Density/ft²
| EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation | N/A | N/A |
### Top Insulation Layer

<table>
<thead>
<tr>
<th>Insulation Fasteners (Table 3)</th>
<th>Fastener Density/ft²</th>
</tr>
</thead>
<tbody>
<tr>
<td>EnergyGuard™ Perlite Roof Insulation</td>
<td>N/A</td>
</tr>
<tr>
<td>Minimum ¼” thick</td>
<td></td>
</tr>
<tr>
<td>Structodek® High Density Fiber Board</td>
<td>N/A</td>
</tr>
<tr>
<td>Minimum ½” thick</td>
<td></td>
</tr>
<tr>
<td>SECUROCK® Gypsum-Fiber Roof Board, DensDeck® Prime</td>
<td>N/A</td>
</tr>
<tr>
<td>Minimum ¼” thick</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** All insulation shall be adhered in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

#### Base Sheet:
Install one ply of GAFGLAS® #75 Base Sheet or Tri-Ply® #75 Base Sheet. Adhered 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:
Rubberoid® Mop Smooth, Rubberoid® Mop Smooth 1.5 or Rubberoid® 20 Smooth adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

#### Membrane:
Rubberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Rubberoid® Mop Granule FR, Rubberoid® Mop Plus Granule FR or Rubberoid® EnergyCap™ Mop Plus Granule FR adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

#### Surfacing:
Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ 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.
3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat. OR TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq. (to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
4. Fiber Aluminum Roof Coating.

**Maximum Design Pressure:** See Fastening Options
Membrane Type: SBS
Deck Type II: Wood, Insulated
Deck Description: Min. 15/32” thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type A(5): All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently fully adhered to insulation.

All General and System Limitations shall apply.
Fire Barrier: FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.

Fastening Option #1: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –45 psf, See General Limitation #7)

Fastening Option #2: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #3: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #4: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –67.5 psf, See General Limitation #7)

Fastening Option #5: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. (Maximum Design Pressure –75 psf, See General Limitation #7)

One or more of any of the following insulations.

<table>
<thead>
<tr>
<th>Base Layer Insulation</th>
<th>Insulation Fasteners (Table 3)</th>
<th>Fastener Density/ft²</th>
</tr>
</thead>
<tbody>
<tr>
<td>EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RH Tapered Polyiso Insulation</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Top Layer Insulation

<table>
<thead>
<tr>
<th>Description</th>
<th>Density/ft²</th>
<th>Fastener Density/ft²</th>
</tr>
</thead>
<tbody>
<tr>
<td>EnergyGuard™ Perlite Roof Insulation</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Minimum ¾” thick</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structodek® High Density Fiber Board</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Minimum ½” thick</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SECUROCK® Gypsum-Fiber Roof Board, DensDeck® Prime</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Minimum ¼” thick</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: All insulation shall be adhered in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: Install one or more plies of Ruberoid® 20 Smooth adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See General Limitation #4).


Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat. OR TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq. (to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
3. Fiber Aluminum Roof Coating.

Maximum Design Pressure: See Fastening Options
Membrane Type: SBS

Deck Type II: Wood, Insulated

Deck Description: Min. 15/32” thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.

System Type A(6): All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently fully adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet. (optional)

Anchor sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.

Fastening Option #1: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –45 psf, See General Limitation #7)

Fastening Option #2: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #3: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #4: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –67.5 psf, See General Limitation #7)

Fastening Option #5: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. (Maximum Design Pressure –75 psf, See General Limitation #7)

One or more of any of the following insulations.

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<thead>
<tr>
<th>Base Layer Insulation</th>
<th>Insulation Fasteners (Table 3)</th>
<th>Fastener Density/ft²</th>
</tr>
</thead>
<tbody>
<tr>
<td>EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RH Tapered Polyiso Insulation</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
### Top Layer Insulation

<table>
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<tr>
<th>Insulation Fasteners (Table 3)</th>
<th>Fastener Density/ft²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EnergyGuard™ Perlite Roof Insulation</strong></td>
<td>N/A</td>
</tr>
<tr>
<td>Minimum ¾” thick</td>
<td></td>
</tr>
<tr>
<td><strong>Structodek® High Density Fiber Board</strong></td>
<td>N/A</td>
</tr>
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<td>Minimum ½” thick</td>
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</tr>
<tr>
<td><strong>SECUROCK® Gypsum-Fiber Roof Board, DensDeck® Prime</strong></td>
<td>N/A</td>
</tr>
<tr>
<td>Minimum ¼” thick</td>
<td></td>
</tr>
</tbody>
</table>

Note: All insulation shall be adhered in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

### Base Sheet:
Install one or more plies of Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See General Limitation #4).

### Membrane:
Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR or Ruberoid® EnergyCap™ Mop Plus Granule FR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

### Surfacing:
Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ 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.
3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat. OR
   TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq. (to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
4. Fiber Aluminum Roof Coating.

### Maximum Design Pressure:
See Fastening Options
Membrane Type: SBS
Deck Type II: Wood, Insulated
Deck Description: Min. 15/32” thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type A(7): All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently fully adhered to insulation.

All General and System Limitations shall apply.
Fire Barrier: FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.

Fastening Option #1: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –45 psf, See General Limitation #7)

Fastening Option #2: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #3: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #4: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –67.5 psf, See General Limitation #7)

Fastening Option #5: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. (Maximum Design Pressure –75 psf, See General Limitation #7)

One or more of any of the following insulations.
Base Insulation Layer

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<thead>
<tr>
<th>Insulation Fasteners</th>
<th>Fastener Density/ft²</th>
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<tr>
<td>EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RH Tapered Polyiso Insulation</td>
<td>N/A</td>
</tr>
<tr>
<td>Minimum 1” thick</td>
<td>N/A</td>
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NOA No.: 18-0919.12
Expiration Date: 11/06/23
Approval Date: 11/01/18
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Top Insulation Layer

<table>
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<th>Insulation Fasteners (Table 3)</th>
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<tr>
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</table>

Note: All insulation shall be adhered in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet or Tri-Ply® #75 Base Sheet. Adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See General Limitation #4).


Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

2. GAFGLAS® Mineral Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ 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.

3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat. OR TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq. (to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.

4. Fiber Aluminum Roof Coating.

Maximum Design Pressure: See Fastening Options
Membrane Type: SBS
Deck Type 1I: Wood, Insulated
Deck Description: Min. 15/32” thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type A(8): All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently fully adhered to insulation.

All General and System Limitations shall apply.
Fire Barrier: FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.

Fastening Option #1: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –45 psf, See General Limitation #7)

Fastening Option #2: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #3: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #4: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –67.5 psf, See General Limitation #7)

Fastening Option #5: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows.
(Maximum Design Pressure –75 psf, See General Limitation #7)

One or more of any of the following insulations.

<table>
<thead>
<tr>
<th>Base Layer Insulation</th>
<th>Insulation Fasteners</th>
<th>Fastener Density/ft²</th>
</tr>
</thead>
<tbody>
<tr>
<td>EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RH Tapered Polyiso Insulation</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Minimum 1” thick</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Top Layer Insulation

<table>
<thead>
<tr>
<th>Insulation Fasteners (Table 3)</th>
<th>Fastener Density/ft²</th>
</tr>
</thead>
<tbody>
<tr>
<td>EnergyGuard™ Perlite Roof Insulation Minimum ¾” thick</td>
<td>N/A</td>
</tr>
<tr>
<td>Structodek® High Density Fiber Board Minimum ½” thick</td>
<td>N/A</td>
</tr>
<tr>
<td>SECUROCK® Gypsum-Fiber Roof Board, DensDeck® Prime Minimum ¼” thick</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: All insulation shall be adhered in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet:

Two or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet or GAFGLAS® FlexPly™ 6 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See General Limitation #4).

Membrane:


Surfacing:

Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

2. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat. OR

   TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq. (to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.

3. Fiber Aluminum Roof Coating.

Maximum Design Pressure:

See Fastening Options
Membrane Type: SBS
Deck Type II: Wood, Insulated
Deck Description: Min. 15/32” thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type A(9): All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently fully adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.

Anchor sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.

Fastening Option #1: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. *(Maximum Design Pressure –45 psf, See General Limitation #7)*

Fastening Option #2: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. *(Maximum Design Pressure –52.5 psf, See General Limitation #7)*

Fastening Option #3: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. *(Maximum Design Pressure –52.5 psf, See General Limitation #7)*

Fastening Option #4: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min. 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. *(Maximum Design Pressure –67.5 psf, See General Limitation #7)*

Fastening Option #5: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. *(Maximum Design Pressure –75 psf, See General Limitation #7)*

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<th>Base Insulation Layer</th>
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<td>EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RH Tapered Polyiso Insulation</td>
<td>N/A</td>
<td>N/A</td>
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NOA No.: 18-0919.12
Expiration Date: 11/06/23
Approval Date: 11/01/18
Page 27 of 67
<table>
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<tr>
<th>Top Insulation Layer</th>
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<td>N/A</td>
</tr>
<tr>
<td>Minimum ¾” thick</td>
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<tr>
<td>Structodek® High Density Fiber Board</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Minimum ½” thick</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SECUROCK® Gypsum-Fiber Roof Board, DensDeck® Prime</td>
<td>N/A</td>
<td>N/A</td>
</tr>
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<td>Minimum ¼” thick</td>
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<td></td>
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</table>

**Note:** All insulation shall be adhered in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Base Sheet:**
Install one ply of Ruberoid® 20 Smooth adhered 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:**
Ruberoid® Mop Smooth or Ruberoid® Mop Smooth 1.5 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Membrane:**
Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR or Ruberoid® EnergyCap™ Mop Plus Granule FR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Surfacing:**
Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ 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.

3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat. OR
   TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq. (to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.

4. Fiber Aluminum Roof Coating.

**Maximum Design Pressure:**
See Fastening Options
Membrane Type: SBS

Deck Type 1I: Wood, Insulated

Deck Description: Min. 15/32” thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.

System Type A(10): All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently partially adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.

Anchor sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.

Fastening Option #1: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. *(Maximum Design Pressure –45 psf, See General Limitation #7)*

Fastening Option #2: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. *(Maximum Design Pressure –52.5 psf, See General Limitation #7)*

Fastening Option #3: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. *(Maximum Design Pressure –52.5 psf, See General Limitation #7)*

Fastening Option #4: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. *(Maximum Design Pressure –67.5 psf, See General Limitation #7)*

Fastening Option #5: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. *(Maximum Design Pressure –82.5 psf, See General Limitation #7)*

One or more layers of any of the following insulations.

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<tr>
<th>Insulation Layer</th>
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<td>N/A</td>
<td>N/A</td>
</tr>
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</table>

Minimum 1” thick

Note: All insulation shall be adhered in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.
Base Sheet: GAFGLAS® Stratavent® Perforated Venting Base Sheet is loose laid over the insulation with 2 in. side laps


Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ 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.

3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.

   OR

   TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq.(to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.

4. Fiber Aluminum Roof Coating.

Maximum Design Pressure: See Fastening Options
Membrane Type: SBS

Deck Type II: Wood, Insulated

Deck Description: Min. 15/32” thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.

System Type A(11): All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently partially adhered to insulation.

All General and System Limitations shall apply.

Fire Barrier: FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet, or VersaShield® Solo™ Fire-Resistant Slip Sheet.

Anchor Sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.

Fastening Option #1: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. (*Maximum Design Pressure –45 psf, See General Limitation #7*)

Fastening Option #2: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. (*Maximum Design Pressure –52.5 psf, See General Limitation #7*)

Fastening Option #3: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. (*Maximum Design Pressure –52.5 psf, See General Limitation #7*)

Fastening Option #4: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. (*Maximum Design Pressure –67.5 psf, See General Limitation #7*)

Fastening Option #5: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. (*Maximum Design Pressure –82.5 psf, See General Limitation #7*)

One or more layers of any of the following insulations.

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<th>Base Layer Insulation</th>
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<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Note: All insulation shall be adhered in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Base Sheet:** GAFGLAS® Stratavent® Perforated Venting Base Sheet is loosely-laid over the insulation with 2 in. side laps

**Ply Sheet:** Two or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet or GAFGLAS® FlexPly™ 6 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See General Limitation #4).


**Surfacing:** Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

2. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat. OR TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq. (to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.

3. Fiber Aluminum Roof Coating.

**Maximum Design Pressure:** See Fastening Options
Membrane Type: SBS
Deck Type 1I: Wood, Insulated
Deck Description: Min. 15/32” thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type A(12): All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently partially adhered to insulation.

All General and System Limitations shall apply.
Fire Barrier: FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Rubberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.

Fastening
Option #1: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. *(Maximum Design Pressure –45 psf, See General Limitation #7)*

Fastening
Option #2: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. *(Maximum Design Pressure –52.5 psf, See General Limitation #7)*

Fastening
Option #3: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. *(Maximum Design Pressure –52.5 psf, See General Limitation #7)*

Fastening
Option #4: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. *(Maximum Design Pressure –67.5 psf, See General Limitation #7)*

Fastening
Option #5: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. *(Maximum Design Pressure –82.5 psf, See General Limitation #7)*

One or more layers of any of the following insulations.

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<tr>
<th>Insulation for Base Layer</th>
<th>Insulation Fasteners Density/ft²</th>
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| Minimum 1” thick | Note: All insulation shall be adhered in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.
Base Sheet:  
GAFGLAS® Stratavent® Perforated Venting Base Sheet is loosely-laid over the insulation with 2 in. side laps

Ply Sheet:  
Install one or more plies of Ruberoid® 20 Smooth adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See General Limitation #4).

Membrane:  

Surfacing:  
Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

2. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat. OR  
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3. Fiber Aluminum Roof Coating.

Maximum Design Pressure:  
See Fastening Options
Membrane Type: SBS
Deck Type 1I: Wood, Insulated
Deck Description: Min. 15/32” thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type A(13): All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently partially adhered to insulation.

All General and System Limitations shall apply.
Fire Barrier: FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.

Fastening Option #1: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. *(Maximum Design Pressure –45 psf, See General Limitation #7)*

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One or more layers of any of the following insulations.

**Insulation for Base Layer**

**Insulation Fasteners (Table 3)**

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Note: All insulation shall be adhered in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: GAFGLAS® Stratavent® Perforated Venting Base Sheet is loosely-laid over the insulation with 2 in. side laps

Ply Sheet: Install one or more plies of Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See General Limitation #4).


Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

2. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat. OR
   TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq., (to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.

3. Fiber Aluminum Roof Coating.

Maximum Design Pressure: See Fastening Options
Membrane Type: SBS

Deck Type II: Wood, Insulated

Deck Description: Min. 15/32” thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.

System Type A(14): All insulation layers are adhered to a mechanically attached anchor sheet. Membrane is subsequently partially adhered to insulation.

All General and System Limitations shall apply.


Anchor sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.

Fastening Option #1: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows.  
(Maximum Design Pressure –45 psf, See General Limitation #7)

Fastening Option #2: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows.  
(Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #3: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows.  
(Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #4: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows.  
(Maximum Design Pressure –67.5 psf, See General Limitation #7)

Fastening Option #5: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows.  
(Maximum Design Pressure –82.5 psf, See General Limitation #7)

One or more layers of any of the following insulations.

<table>
<thead>
<tr>
<th>Insulation Layer</th>
<th>Insulation Fasteners (Table 3)</th>
<th>Fastener Density/ft²</th>
</tr>
</thead>
<tbody>
<tr>
<td>EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RH Tapered Polyiso Insulation</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Note: All insulation shall be adhered in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: GAFGLAS® Stratavent® Perforated Venting Base Sheet is loosely-laid over the insulation with 2 in. side laps

Interply Sheet: Install one ply of Rubberoid® 20 Smooth adhered 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: Rubberoid® Mop Smooth or Rubberoid® Mop Smooth 1.5 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: Rubberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Rubberoid® Mop Granule FR, Rubberoid® Mop Plus Granule FR or Rubberoid® EnergyCap™ Mop Plus Granule FR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ 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.

3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat. OR TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq.(to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.

4. Fiber Aluminum Roof Coating.

Maximum Design Pressure: See Fastening Options
**Membrane Type:**  SBS

**Deck Type 11:**  Wood, Insulated

**Deck Description:**  Min. 19/32” or greater plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max

**System Type B(1):**  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.

**Fire Barrier:**  FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Roof Deck Protection, VersaShield® Solo™ Fire-Resistant Slip Sheet, DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board or SECUROCK® Glass-Mat Roof Board.

One or more layers of any of the following insulations.

### Base Insulation Layer

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<tr>
<th>Insulation Fasteners (Table 3)</th>
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</thead>
<tbody>
<tr>
<td>EnergyGuard™ RA Polyiso Insulation Minimum 2.0” thick</td>
<td>1, 2, 4, 5</td>
</tr>
<tr>
<td>EnergyGuard™ RN Polyiso Insulation Minimum 1.4” thick</td>
<td>1, 2, 4, 5</td>
</tr>
<tr>
<td>EnergyGuard™ Polyiso Insulation Minimum 1.5” thick</td>
<td>1, 2, 4, 5</td>
</tr>
<tr>
<td>EnergyGuard™ Perlite Roof Insulation Minimum ¾” thick</td>
<td>1, 2, 4, 5</td>
</tr>
<tr>
<td>Structodek® High Density Fiber Board Minimum 1” thick</td>
<td>1, 2, 4, 5</td>
</tr>
</tbody>
</table>

**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 Venting Base Sheet laid dry or a layer of EnergyGuard™ Perlite Roof Insulation or wood fiber overlay board on all polyisocyanurate applications.

### Top Insulation Layer

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<tr>
<th>Insulation Fasteners (Table 3)</th>
<th>Fastener Density/ft²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any of the insulation listed for Base Layer, above. Minimum thickness same as above</td>
<td>N/A</td>
</tr>
<tr>
<td>Structodek® High Density Fiber Board, EnergyGuard™ Perlite Recover Board Minimum ½” thick</td>
<td>N/A</td>
</tr>
</tbody>
</table>
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 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, Rubberoid® Mop Smooth, Rubberoid® Mop Smooth 1.5, Rubberoid® Mop Plus Smooth or Rubberoid® 20 Smooth 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).

OR
GAFGLAS® Stratavent® Perforated Venting Base Sheet loose laid dry (not for use with wood fiber board or perlite top layer insulation).

**Ply Sheet:**
(Optional) One or more plies GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6 sheet or GAFGLAS® #80 Ultima™ Base Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Membrane:**

**Surfacing:**
Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of Approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ 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.
3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
   OR
   TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq.(to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
4. Fiber Aluminum Roof Coating.

**Maximum Design Pressure:**
-45 psf. (See General Limitation #9)
Membrane Type: APP/SBS Heat Weld
Deck Type 1I: Wood, Insulated
Deck Description: Min. 19/32” or greater plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type B(2): 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.
Fire Barrier: FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Roof Deck Protection or Securock® Gypsum-Fiber Roof Board.

One or more layers of any of the following insulations.

<table>
<thead>
<tr>
<th>Insulation Type</th>
<th>Insulation Fasteners</th>
<th>Fastener Density/ft²</th>
</tr>
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<tbody>
<tr>
<td>Base Insulation Layer</td>
<td>(Table 3)</td>
<td></td>
</tr>
<tr>
<td>EnergyGuard™ RA Polyiso Insulation Minimum 2.0” thick</td>
<td>1, 2, 4, 5</td>
<td>1:3.2 ft²</td>
</tr>
<tr>
<td>EnergyGuard™ RN Polyiso Insulation Minimum 1.4” thick</td>
<td>1, 2, 4, 5</td>
<td>1:3 ft²</td>
</tr>
<tr>
<td>EnergyGuard™ Polyiso Insulation Minimum 1.5” thick</td>
<td>1, 2, 4, 5</td>
<td>1:2 ft²</td>
</tr>
<tr>
<td>EnergyGuard™ RA Composite Polyiso Insulation Minimum 1.5” thick</td>
<td>1, 2, 4, 5</td>
<td>1:3 ft²</td>
</tr>
<tr>
<td>EnergyGuard™ Perlite Roof Insulation Minimum ¾” thick</td>
<td>1, 2, 4, 5</td>
<td>1:2 ft²</td>
</tr>
<tr>
<td>Structodek® High Density Fiber Board Minimum 1” thick</td>
<td>1, 2, 4, 5</td>
<td>1:2 ft²</td>
</tr>
</tbody>
</table>

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 Venting Base Sheet laid dry or a layer of EnergyGuard™ Perlite Roof Insulation or wood fiber overlay board on all polyisocyanurate applications.

Top Insulation Layer | Insulation Fasteners | Fastener Density/ft² |
---------------------|----------------------|----------------------|
| Any of the insulation listed for Base Layer, above. Minimum thickness same as above | N/A | N/A |
| Structodek® High Density Fiber Board, EnergyGuard™ Perlite Recover Board Minimum ½” thick | N/A | N/A |

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 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid Mop Plus Smooth, Ruberoid® 20 Smooth, Ruberoid® HW Smooth or Ruberoid® HW 25 Smooth 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).
OR
GAFGLAS® Stratavent® Perforated Venting Base Sheet loose laid dry (not for use with wood fiber board or perlite top layer insulation).

Ply Sheet: (Optional, required when using Ruberoid® 20 Smooth) One or more plies GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6 sheet or GAFGLAS® #80 Ultima™ Base Sheet 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® HW Plus Granule, Ruberoid® HW Plus Granule FR, Ruberoid® EnergyCap™ HW Plus Granule FR, Ruberoid® HW Granule, Ruberoid® HW Smooth and Ruberoid® HW 25 Smooth applied according to manufacturer's application instructions.

Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of Approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ 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.
3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
OR
TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq.(to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
4. Fiber Aluminum Roof Coating.

Maximum Design Pressure: -45 psf. (See General Limitation #9)
Membrane Type: SBS
Deck Type 11: Wood, Insulated
Deck Description: Min. 19/32” or greater plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type C(1): 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.


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<td>EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation Minimum 1.3” thick</td>
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<td>N/A</td>
</tr>
<tr>
<td>EnergyGuard™ Polyiso Insulation Minimum 1.4” thick</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>EnergyGuard™ RA Composite Polyiso Insulation Minimum 1.5” thick</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>EnergyGuard™ Perlite Roof Insulation Minimum ¾” thick</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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.

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<td>1, 2, 4, 5</td>
<td>1:2 ft²</td>
</tr>
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<td>Structodesk® High Density Fiber Board Minimum 1” thick</td>
<td>1, 2, 4, 5</td>
<td>1:2 ft²</td>
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</table>
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® Perforated Venting Base Sheet laid dry or a layer of EnergyGuard™ Perlite Roof Insulation or wood fiber overlay board on all polyisocyanurate applications.

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth or Ruberoid® 20 Smooth 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).
OR
GAFGLAS® Stratavent® Perforated Venting Base Sheet loose laid dry (not for use with wood fiber board or perlite top layer insulation).

Ply Sheet: (Optional) One or more plies GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6 or GAFGLAS® #80 Ultima™ Base Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.


Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.
1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of Approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ 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.
3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
OR
TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq.(to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
4. Fiber Aluminum Roof Coating.

Maximum Design Pressure: -45 psf. (See General Limitation #9)
Membrane Type: APP/SBS Heat Weld

Deck Type II: Wood, Insulated

Deck Description: Min. 19/32” or greater plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.

System Type C(2): 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.

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Roof Deck Protection, VersaShield® Solo™ Fire-Resistant Slip Sheet, DensDeck® Roof Board, or SECUROCK® Gypsum-Fiber Roof Board, or SECUROCK® Glass-Mat Roof Board.

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<th>Fastener Density/ft²</th>
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</table>
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Minimum 1.3” thick | N/A | N/A |
| EnergyGuard™ Polyiso Insulation
Minimum 1.4” thick | N/A | N/A |
| EnergyGuard™ RA Composite Polyiso Insulation
Minimum 1.5” thick | N/A | N/A |
| EnergyGuard™ Perlite Roof Insulation, EnergyGuard™ Perlite Recover Board
Minimum ¾” 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.

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| EnergyGuard™ RA Polyiso Insulation
Minimum 2.0” thick | 1, 2, 4, 5 | 1:3.2 ft² |
| EnergyGuard™ RN Polyiso Insulation
Minimum 1.4” thick | 1, 2, 4, 5 | 1:3 ft² |
| EnergyGuard™ Polyiso Insulation
Minimum 1.5” thick | 1, 2, 4, 5 | 1:2 ft² |
| EnergyGuard™ RA Composite Polyiso Insulation
Minimum 1.5” thick | 1, 2, 4, 5 | 1:3 ft² |
| EnergyGuard™ Perlite Roof Insulation
Minimum ¾” thick | 1, 2, 4, 5 | 1:2 ft² |
| Structodek® High Density Fiber
Minimum 1” thick | 1, 2, 4, 5 | 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® Perforated Venting Base Sheet laid dry or a layer of EnergyGuard™ Perlite Roof Insulation or wood fiber overlay board on all polyisocyanurate applications.

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth or Ruberoid® 20 Smooth 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).

OR
GAFGLAS® Stratavent® Perforated Venting Base Sheet loose laid dry (not for use with wood fiber board or perlite top layer insulation).

Ply Sheet: (Optional, required when using Ruberoid® 20 Smooth) One or more plies GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6 or GAFGLAS® #80 Ultima™ Base Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.


Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of Approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ 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.
3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat. OR TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq.(to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.

Maximum Design Pressure: -45 psf. (See General Limitation #9)
Membrane Type: SBS/SBS Cold Applied
Deck Type II: Wood, Insulated
Deck Description: Min. 19/32” or greater plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type D(I): All insulation is loose laid with preliminary attachment to roof deck. 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.

<table>
<thead>
<tr>
<th>Insulation Layer</th>
<th>Insulation Fasteners</th>
<th>Fastener Density/ft²</th>
</tr>
</thead>
<tbody>
<tr>
<td>EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structodek® High Density Fiber Board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum 1” thick</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Stratavent® Nailable Venting Base Sheet or Ruberoid® 20 Smooth applied over the loose laid insulation with 2” side laps mechanically fastened to deck as described below;

Fastening Option #1: Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener and Drill-Tec™ 3” Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate 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 12.5” o.c. in the field of the sheet.

Fastening Option #2: Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener and Drill-Tec™ 3” Steel 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.

Fastening Option #3: Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener and Drill-Tec™ 3” Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate 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, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #80 Ultima™ Base Sheet, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth or Ruberoid® 20 Smooth adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Or


Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of Approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ 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.
3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.

OR

TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq.(to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.

4. Fiber Aluminum Roof Coating.

Maximum Design Pressure: –45 psf. (See General Limitation #9)
Membrane Type: APP/SBS Heat Weld
Deck Type II: Wood, Insulated
Deck Description: Min. 19/32” or greater plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type D(2): All insulation is loose laid with preliminary attachment to roof deck. 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.

<table>
<thead>
<tr>
<th>Insulation Layer</th>
<th>Insulation Fasteners (Table 3)</th>
<th>Fastener Density/ft²</th>
</tr>
</thead>
<tbody>
<tr>
<td>EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation Minimum 1.3” thick</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Structodek® High Density Fiber Board Minimum 1” thick</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Stratavent® Nailable Venting Base Sheet or Ruberoid® 20 Smooth base sheet applied over the loose laid insulation with 2” side laps mechanically fastened to deck as described below;

Fastening Option #1: Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener or and Drill-Tec™ 3” Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate 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 12.5” o.c. in the field of the sheet.

Fastening Option #2: Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener or and Drill-Tec™ 3” Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 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.

Fastening Option #3: Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener or and Drill-Tec™ 3” Steel Plate 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, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6 sheet or GAFGLAS® #80 Ultima™ Base Sheet 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® HW Plus Granule, Ruberoid® HW Plus Granule FR, Ruberoid® HW Granule FR, Ruberoid® EnergyCap™ HW Plus Granule FR, Ruberoid® HW Granule, Ruberoid® HW Smooth and Ruberoid® HW 25 Smooth applied according to manufacturer's application instructions.

Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of Approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ 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.
3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
   OR
   TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq. (to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
4. Fiber Aluminum Roof Coating.

Maximum Design Pressure: -45 psf. (See General Limitation #9)
Membrane Type: SBS/SBS Cold Applied

Deck Type 1: Wood, Non-insulated

Deck Description: Min. 19/32” or greater plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.

System Type E(1): Anchor sheet is mechanically attached to roof deck. (Non-insulated systems)

All General and System Limitations shall apply.


Base sheet: GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Stratavent® Nailable Venting Base Sheet, Ruberoid® 20 Smooth, Ruberoid® HW Smooth or Ruberoid® HW 25 Smooth base sheet mechanically fastened to deck as described below:

Fastening Option #1: GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above base sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9” o.c. at the lap staggered and in two rows 18” o.c. in the field.

Not for use with DensDeck or SECUROCK Fire Barrier

(Maximum Design Pressure –45 psf. See General Limitation #9)

Fastening Option #2: GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above base sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9” o.c. at the 4” lap staggered and in two rows 9” o.c. in the field.

Not for use with DensDeck or SECUROCK Fire Barrier

(Maximum Design Pressure –52.5 psf. See General Limitation #7)

Fastening Option #4: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above base sheets attached to deck with approved annular ring shank nails and 3” inverted Drill-Tec™ 3” Steel Plate at a fastener spacing of 9” o.c. at the 4” lap staggered in two rows 9” in the field.

Not for use with DensDeck or SECUROCK Fire Barrier

(Maximum Design Pressure –45 psf. See General Limitation #9)

Fastening Option #5: GAFGLAS® #80 Ultima™ Base Sheet, Ruberoid® 20 Smooth, Ruberoid® Mop Smooth base sheet attached to deck approved annular ring shank nails and 3” inverted Drill-Tec™ 3” Steel Plate at a fastener spacing of 9” o.c. at the 4” lap staggered in two rows 9” in the field.

Not for use with DensDeck or SECUROCK Fire Barrier

(Maximum Design Pressure –60 psf. See General Limitation #7)
Fastening Option #6: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above base sheets attached to deck with Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener and Drill-Tec™ 3” Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 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.

(Maximum Design Pressure – 75 psf. See General Limitation #7)

Ply Sheet: (Optional) One or more plies GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #80 Ultima® Base Sheet, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth or Ruberoid® 20 Smooth sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.


Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of Approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ 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.
3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
   OR
   TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq.(to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
4. Fiber Aluminum Roof Coating.

Maximum Design Pressure: See Fastening Options
Membrane Type: APP/SBS Heat Weld
Deck Type 1: Wood, Non-insulated
Deck Description: Min. 19/32” or greater plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type E(2): Anchor sheet is mechanically attached to roof deck. (Non-insulated systems)

All General and System Limitations shall apply.


Base sheet: GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Stratavent® Nailable Venting Base Sheet, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® 20 Smooth, Ruberoid® HW Smooth or Ruberoid® HW 25 Smooth mechanically fastened to deck as described below;

Fastening Option #1: GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet, GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above base sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9” o.c. at the lap staggered and in two rows 18” o.c. in the field.

Fastening Option #2: GAFGLAS® FlexPly™ 6, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above base sheets attached to deck with Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener and Drill-Tec™ 3” Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 12” o.c. in 3 rows. One row is in the 2” side lap. The other rows are equally spaced approximately 12.5” o.c. in the field of the sheet.

Fastening Option #3: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above base sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9” o.c. at the 4” lap staggered and in two rows 9” o.c. in the field.

Fastening Option #4: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above base sheets attached to deck with Drill-Tec™ #12 Fastener or Drill-Tec™ #14 Fastener and Drill-Tec™ 3” Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 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.
Fastening Option #5: GAFGLAS® #80 Ultima™ Base Sheet, Ruberoid® 20 Smooth, Ruberoid® Mop Smooth base sheet attached to deck approved annular ring shank nails and 3” inverted Drill-Tec™ 3” Steel Plate at a fastener spacing of 9” o.c. at the 4” lap staggered in two rows 9” in the field.
Not for use with DensDeck or SECUROCK Fire Barrier
(Maximum Design Pressure –60 psf. See General Limitation #7)

Fastening Option #6: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or any of above base sheets attached to deck with Drill-Tec™ #12 Fastener, Drill-Tec™ #14 Fastener or Drill-Tec™ XHD Fastener and Drill-Tec™ 3” Steel Plate, Drill-Tec™ AccuTrac® Flat Plate or Drill-Tec™ AccuTrac® Recessed Plate installed 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.
(Maximum Design Pressure –45 psf. See General Limitation #9)

Ply Sheet: (Optional except over Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® 20 Smooth, Ruberoid® HW Smooth or Ruberoid® HW 25 Smooth) One or more plies GAFGLAS® Ply 4, Tri-Ply® Ply 4, 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. or Ruberoid® Torch Smooth torch applied according to manufacturer’s application instructions.


Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.
1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of Approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ 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.
3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat. OR TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq.(to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
4. Fiber Aluminum Roof Coating.

Maximum Design Pressure: See Fastening Options
Membrane Type: SBS
Deck Type II: Wood, Non-Insulated
Deck Description: Min. 15/32” thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type E(3): Anchor sheet is mechanically attached to roof deck. (Non-insulated systems)

All General and System Limitations shall apply.

Fire Barrier: FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.

Anchor sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.

Fastening Option #1: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –45 psf, See General Limitation #7)

Fastening Option #2: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #3: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #4: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –60 psf, See General Limitation #7)

Fastening Option #5: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. (Maximum Design Pressure –97.5 psf, See General Limitation #7)

Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ 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.

3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat. OR
   TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq. (to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.

4. Fiber Aluminum Roof Coating.

Maximum Design Pressure: See Fastening Options
Membrane Type: SBS
Deck Type 1I: Wood, Non-Insulated
Deck Description: Min. 15/32” thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type E(4): Anchor sheet is mechanically attached to roof deck. (Non-insulated systems)

All General and System Limitations shall apply.

Fire Barrier: FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet. (optional)

Anchor sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.

Fastening Option #1: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –45 psf, See General Limitation #7)

Fastening Option #2: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #3: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #4: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. (Maximum Design Pressure –60 psf, See General Limitation #7)

Fastening Option #5: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. (Maximum Design Pressure –97.5 psf, See General Limitation #7)

Base Sheet: Two or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4 Ply Sheet or GAFGLAS® FlexPly™ 6 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See General Limitation #4).
**Membrane:**

**Surfacing:**
Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
   OR
   TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq. (to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
3. Fiber Aluminum Roof Coating.

**Maximum Design Pressure:**
See Fastening Options
Membrane Type: SBS
Deck Type 11: Wood, Non-Insulated
Deck Description: Min. 15/32” thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type E(5): Anchor sheet is mechanically attached to roof deck. (Non-insulated systems)

All General and System Limitations shall apply.

Fire Barrier: FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.

Anchor sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.

Fastening Option #1: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –45 psf, See General Limitation #7)

Fastening Option #2: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #3: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #4: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –60 psf, See General Limitation #7)

Fastening Option #5: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows.
(Maximum Design Pressure –97.5 psf, See General Limitation #7)

Base Sheet: Install one or more plies of Ruberoid® 20 Smooth adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
(See General Limitation #4).
Or
GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
   OR
   TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq. (to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
3. Fiber Aluminum Roof Coating.

Maximum Design Pressure: See Fastening Options
Membrane Type: SBS
Deck Type II: Wood, Non-Insulated
Deck Description: Min. 15/32” thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type E(6): Anchor sheet is mechanically attached to roof deck. (Non-insulated systems)

All General and System Limitations shall apply.

Fire Barrier: FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.
Anchor sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.

Fastening Option #1: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –45 psf, See General Limitation #7)

Fastening Option #2: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #3: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –52.5 psf, See General Limitation #7)

Fastening Option #4: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows.
(Maximum Design Pressure –60 psf, See General Limitation #7)

Fastening Option #5: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows.
(Maximum Design Pressure –97.5 psf, See General Limitation #7)

Base Sheet: Install one or more plies of Ruberoid® Mop Smooth or Ruberoid® Mop Smooth 1.5 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See General Limitation #4).

Membrane: Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR or Ruberoid® EnergyCap™ Mop Plus Granule FR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ 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.
3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat. OR TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq. (to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
4. Fiber Aluminum Roof Coating.

Maximum Design Pressure: See Fastening Options
Membrane Type: SBS
Deck Type 1I: Wood, Non-Insulated
Deck Description: Min. 15/32” thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type E(7): Anchor sheet is mechanically attached to roof deck. (Non-insulated systems)
All General and System Limitations shall apply.

Fire Barrier: FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Slip Sheet or VersaShield® Solo™ Fire-Resistant Slip Sheet.

Anchor sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, Ruberoid® 20 Smooth or GAFGLAS® Stratavent® Nailable Venting Base Sheet is secured as described below.

Fastening Option #1: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in two staggered rows. *(Maximum Design Pressure –45 psf, See General Limitation #7)*

Fastening Option #2: Miami-Dade County Approved min. 12 ga. annular ring shank nails and min. 1-5/8 in. diameter tin caps are spaced 6 in. o.c. in the min 4 in. wide anchor sheet side laps and 6 in. o.c. in the field of the sheet in two staggered rows. *(Maximum Design Pressure –52.5 psf, See General Limitation #7)*

Fastening Option #3: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 16 in. o.c. in the min. 4 in. wide anchor sheet side laps and 16 in. o.c. in the field of the sheet in two staggered rows. *(Maximum Design Pressure –52.5 psf, See General Limitation #7)*

Fastening Option #4: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 12 in. o.c. in the min 4 in. wide anchor sheet side laps and 12 in. o.c. in the field of the sheet in two staggered rows. *(Maximum Design Pressure –60 psf, See General Limitation #7)*

Fastening Option #5: Drill-Tec™ #14 Fasteners and Drill-Tec™ 3 in. Standard Steel Plates, Drill-Tec™ AccuTrac® Flat Plates or Drill-Tec™ 3 in. Ribbed Galvalume Plate (Flat) are spaced 8 in. o.c. in the min. 4 in. wide anchor sheet side laps and 8 in. o.c. in the field of the sheet in three staggered rows. *(Maximum Design Pressure –97.5 psf, See General Limitation #7)*

Base Sheet: Install one ply of Ruberoid® 20 Smooth adhered 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: Ruberoid® Mop Smooth or Ruberoid® Mop Smooth 1.5 adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Membrane: Ruberoid® Mop Granule, Tri-Ply® SBS Granule Cap Sheet, Intec Flex PRF, Ruberoid® Mop Granule FR, Ruberoid® Mop Plus Granule FR or Ruberoid® EnergyCap™ Mop Plus Granule FR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ 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.
3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat. OR
   TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq. (to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
4. Fiber Aluminum Roof Coating.

Maximum Design Pressure: See Fastening Options
Membrane Type: SBS Cold Applied

Deck Type 11: Wood, Non-Insulated

Deck Description: Min. 19/32" plywood or wood plank secured 6 in. o.c. with #8 wood screws to supports spaced 24 in. o.c. max.

System Type E(8): Anchor sheet is mechanically attached to roof deck. (Non-insulated systems)

All General and System Limitations shall apply.

Fire Barrier: FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Roof Deck Protection or VersaShield® Solo™ Fire-Resistant Slip Sheet.

Fire Barrier (optional)

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet or GAFGLAS® Stratavent® Nailable Venting Base Sheet attached to deck with Drill-Tec™ #12 Fasteners and Drill-Tec™ 3" Steel Plate spaced 8 in. o.c. in the min. 2.0 in. wide side laps and 8 in. o.c. in three equally spaced, staggered rows in the field of the sheet.

Base Ply: GAFGLAS® FlexPly™ 6 adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. in accordance with manufacturer's instructions.

Membrane: One or more plies of Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid Mop Granule or Intec Flex PRF adhered in Matrix™ 102 SBS Membrane Adhesive at an application rate of 1.5 gal./sq.

Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ 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.
3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
   OR
   TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq. (to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
4. Fiber Aluminum Roof Coating.

Maximum Design Pressure: -105 psf; (See General Limitation #7)
Membrane Type: SBS
Deck Type 1I: Wood, Non-Insulated
Deck Description: Min. 19/32” thick plywood or wood plank secured 6 in. o.c. with 8d ring shank nails to supports spaced 24 in. o.c. max.
System Type E(9): Anchor sheet is mechanically attached to roof deck. (Non-insulated systems)
All General and System Limitations shall apply.

Fire Barrier: FireOut™ Fire Barrier Coating, VersaShield® Fire-Resistant Roof Deck Protection or VersaShield® Solo™ Fire-Resistant Slip Sheet.

Base Sheet: Install one ply of GAFGLAS® #80 Ultima™ Base Sheet attached to deck with 12 ga., 1-1/4” galvanized ring shank nails through 32 ga. 1-5/8” diameter tin tabs as stated below:

Fastening Option #1: 8 in. o.c. in the min. 4 in. wide side laps and 8 in. o.c in three staggered rows in the field of the sheet.
(Maximum Design Pressure -75 psf; See General Limitation #7)

Fastening Option #2: 9 in. o.c. in the min. 4 in. wide side laps and 9 in. o.c in two staggered rows in the field of the sheet.
(Maximum Design Pressure -45 psf; See General Limitation #9)

Base Ply: GAFGLAS® FlexPly™ 6 adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. in accordance with manufacturer's instructions.


Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
2. GAFGLAS® Mineral-Surfaced Cap Sheet, Tri-Ply® BUR Granule Cap Sheet or GAFGLAS® EnergyCap™ 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.
3. TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
   OR
   TOPCOAT® MB Plus or United Coatings™ Roof Mate MB Plus Coating applied at a minimum rate of 1.0 gal./sq.(to be used as a primer) followed by TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating applied in one or more coats at a minimum rate of 1.0 gal./sq. per coat.
4. Fiber Aluminum Roof Coating.

Maximum Design Pressure: See Fastening Options
WOOD DECK SYSTEM LIMITATIONS:
1. A slip sheet is required with GAFGLAS® Ply 4 and GAFGLAS® FlexPly™ 6 when used as a mechanically fastened base or anchor sheet.
2. Minimum ¼” DensDeck® Roof Board or 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 side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6” break shall be placed every 12” in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.  **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant (When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). (When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE