



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

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

NOTICE OF ACCEPTANCE (NOA)

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

SCOPE:

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

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

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

DESCRIPTION: GAF EverGuard Freedom TPO SA and EverGuard Freedom with RapidSeam® TPO Single Ply Roofing System over 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.

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

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

This NOA revises NOA# 04-0122.03 and consists of pages 1 through 7.
The submitted documentation was reviewed by Jorge Acebo, RC.

Jorge Acebo
10/14/05



**NOA No: 05-0830.15
Expiration Date: 09/15/09
Approval Date: 10/14/05
Page 1 of 7**

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: TPO, Self-Adhered Single Ply Roofing
Deck Type: Wood
Maximum Design Pressure -75 psf
Fire Classification: See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|--|-------------------------------|---------------------------|--|
| EverGuard Freedom TPO SA Membrane | Various | ASTM D 6878 | Self-Adhered thermoplastic olefin reinforced membrane. |
| EverGuard Freedom with RapidSeam® TPO Membrane | Various | ASTM D 6878 | Self-Adhered thermoplastic olefin reinforced membrane. |
| EverGuard Freedom HW TPO Membrane | Various | ASTM D 6878 | Self-Adhered thermoplastic olefin reinforced membrane. |
| EverGuard Freedom EZ TPO Membrane | Various | ASTM D 6878 | Self-Adhered thermoplastic olefin reinforced membrane. |
| EverGuard TPO-45 Utility Flashing Strips | Various | ASTM D 6878 | Thermoplastic olefin reinforced flashing membrane. |
| EverGuard TPO UN-60 Detailing Membrane | Various | ASTM D 6878 | Thermoplastic olefin reinforced flashing membrane. |
| EverGuard TPO Coated Metal | 4' x 8' 4' x 10' sheets | US CS-245-62 | EverGuard membrane laminated 24 Ga. galvanized steel. |
| EverGuard TPO Preformed Corners | 4" x 4" x 4" 20 pcs. crtn. | ASTM D 6878 | Prefabricated molded one piece corners. |
| EverGuard TPO Preformed Vent Boots | 1" - 8" o.d. 6 pcs. crtn. | ASTM D 6878 | Premolded vent pipe boots. |
| EverGuard TPO Cut Edge Sealant | 1 quart squeeze tube | Proprietary | Solvent based sealant for TPO cut edges. |
| EverGuard Expansion Joint Cover | 4"-8" x 50' | | Low profile expansion joint cover. |
| EverGuard Standard Walkway | 1/8" x 30" x 36" | | Standard duty walkway pad. |
| EverGuard HD Walkway | 1/4" x 30" x 36" | | Heavy duty walkway pad. |



NOA No: 05-0830.15
 Expiration Date: 09/15/09
 Approval Date: 10/14/05
 Page 2 of 7

APPROVED INSULATIONS:

TABLE 2

| <u>Product Name</u> | <u>Product Description</u> | <u>Manufacturer (With Current NOA)</u> |
|-------------------------------------|--|--|
| EnergyGuard PolyIso, RA, RN, Ultra | Polyisocyanurate foam insulation | BMCA |
| EnergyGuard High Density Fiberboard | High density wood fiberboard insulation. | BMCA |
| EnergyGuard Perlite | Perlite insulation board. | BMCA |
| EnergyGuard Composite, RA, RN | Polyisocyanurate foam insulation with high density fiberboard or Permalite perlite insulation. | BMCA |
| BMCA Dens Deck, Dens Deck Prime | Water-resistant gypsum board | BMCA |
| Wood Fiberboard | Regular wood fiber insulation | Generic |
| High Density Wood Fiberboard | High Density Wood Fiber insulation board. | Generic |
| Perlite Insulation Board | Perlite Insulation | Generic |
| Type X Gypsum | Gypsum Wallboard | Generic |
| Dens Deck, Dens Deck Prime | Water-resistant gypsum board | Georgia Pacific |

APPROVED FASTENERS:

TABLE 3

| <u>Fastener Number</u> | <u>Product Name</u> | <u>Product Description</u> | <u>Dimensions</u> | <u>Manufacturer (With Current NOA)</u> |
|------------------------|--|---|-------------------|--|
| 1. | Drill-Tec™ #12 Standard & #14 HD Roofing Fasteners | Insulation fastener for steel, wood & concrete decks. | | BMCA. |
| 2. | Drill-Tec™ ASAP | Pre-assembled fasteners and metal and plastic plates. | | BMCA.. |
| 3. | Drill-Tec™ Plastic Polypropylene Plates | Round Polypropylene plate. | 3" & 3-½" round | BMCA. |
| 4. | Drill-Tec™ Metal Insulation Plates | Round galvalume plate. | 3" & 3-½" round | BMCA. |

EVIDENCE SUBMITTED:

| <u>Test Agency/Identifier</u> | <u>Name</u> | <u>Report</u> | <u>Date</u> |
|-------------------------------|-------------|---------------|-------------|
| Underwriters Laboratory, Inc. | 03CA38009 | UL 790 | 01/21/04 |
| Factory Mutual Research Corp. | 3B9Q1.AM | FM 4470 | 01/08/98 |
| | 3020588 | FM 4470 | 03/24/04 |
| IRT-ARCON | 02-005 | TAS 114 | 01/18/01 |
| | 04-025 | TAS 114 | 07/13/04 |



NOA No: 05-0830.15
 Expiration Date: 09/15/09
 Approval Date: 10/14/05
 Page 3 of 7

APPROVED ASSEMBLIES:

- Deck Type II:** Wood, Insulated
- Deck Description:** 19/32" or greater plywood or wood plank
- System Type A:** All layers of insulation are adhered to a mechanically attached anchor sheet. Membrane fully or partially adhered.

All General and System Limitations apply.

One or more layers of any of the following insulations.

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|---|-----------------------------------|-------------------------------------|
| EnergyGuard PolyIso, RA, RN Minimum 1" thick | N/A | N/A |

Note: All insulation shall be adhered to the anchor sheet in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft² or 3/4" to 1" wide beads 6" o.c. of Olympic OlyBond 500 Adhesive or Olympic Adhesive Fastener at a rate of 1 gal/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Anchor sheet: GAFGLAS #80 Ultima™ Base Sheet, STRATAVENT® Eliminator Perforated Nailable Base Sheet, RUBEROID Modified Base Sheet, RUBEROID® 20 or RUBEROID Mop Smooth base sheet mechanically fastened to deck as described below;

- Fastening Options:**
- Anchor sheet 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 12" o.c. in the field. *(Maximum Design Pressure -45 psf, See General Limitation #7)*
 - 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)*
 - Anchor sheets attached to deck approved annular ring shank nails and 3" inverted Drill-Tec insulation plates 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)*

Membrane: EverGuard Freedom TPO SA or or EverGuard Freedom with RapidSeam® TPO or Freedom TPO EZ adhered to insulation with a minimum 6" side lap
or
Freedom HW with a minimum 3" side lap. Laps are heat welded with a minimum 1.75" weld
or
Freedom EZ fully adhered to the insulation with a minimum 21" self-adhered laps.

Maximum Design Pressure: See Fastening Options Above



Deck Type 1I: Wood, Insulated

Deck Description: ¹⁹/₃₂" or greater plywood or wood plank fastened to supports a maximum spacing of 16" o.c. with wood screws at spaced at 6" o.c.

System Type A(2): All layers of insulation are adhered to a mechanically attached anchor sheet. Membrane fully or partially adhered.

All General and System Limitations apply.

One or more layers of any of the following insulations.

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|---|-----------------------------------|-------------------------------------|
| EnergyGuard PolyIso, RA, RN Minimum 1" thick | N/A | N/A |

Note: All insulation shall be adhered to the anchor sheet in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft² or ¾" to 1" wide beads 6" o.c. of Olympic OlyBond 500 Adhesive or Olympic Adhesive Fastener at a rate of 1 gal/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Anchor sheet: GAFGLAS #80 Ultima™ Base Sheet, STRATAVENT® Eliminator Perforated Nailable Base Sheet, RUBEROID Modified Base Sheet, RUBEROID® 20 or RUBEROID Mop Smooth base sheet mechanically fastened to deck as described below;

Fastening Options:

Anchor sheets attached to deck with Drill-Tec #12 or #14 Screws and 3" Plates, 12" o.c. in 3 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 12" o.c. in the field of the sheet.
(Maximum Design Pressure –45 psf, See General Limitation #9)

Anchor sheets attached to deck with Drill-Tec (GAFTITE) #12 or #14 Screws and 3" Plates, 8" o.c. in 4 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.
(Maximum Design Pressure –75 psf, See General Limitation #9)

Membrane: EverGuard Freedom TPO SA or Everguard Freedom with RapidSeam® TPO or Freedom TPO EZ adhered to insulation with a minimum 6" side lap
 or
 Freedom HW with a minimum 3" side lap. Laps are heat welded with a minimum 1.75" weld
 or
 Freedom EZ fully adhered to the insulation with a minimum 21" self-adhered laps.

Maximum Design Pressure: See Fastening Options Above



Deck Type 1I: Wood, Insulated
Deck Description: ¹⁹/₃₂ " or greater plywood or wood plank
System Type C: One or more layers of insulation simultaneously attached; Base layer(s) optional.

All General and System Limitations apply.

One or more layers of any of the following insulations.

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| EnergyGuard PolyIso, RA, RN Minimum 1" thick | N/A | N/A |
| Dens Deck, Dens Deck Prime Minimum ¼ " thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| EnergyGuard PolyIso, RA, RN Minimum 1.5" thick | 1 | 1:3 ft ² |

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.

Membrane: EverGuard Freedom TPO SA or EverGuard Freedom with RapidSeam® TPO or Freedom TPO EZ adhered to insulation with a minimum 6" side lap
or
Freedom HW with a minimum 3" side lap. Laps are heat welded with a minimum 1.75" weld
or
Freedom EZ fully adhered to the insulation with a minimum 21" self-adhered laps.

Maximum Design Pressure: -52.5 psf; (See General Limitation #7)



WOOD DECK SYSTEM LIMITATIONS:

1. A slip sheet is required with Ply 4 and Ply 6 when used as a mechanically fastened base or anchor sheet.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9B-72 of the Florida Administrative Code.

END OF THIS ACCEPTANCE



NOA No: 05-0830.15
Expiration Date: 09/15/09
Approval Date: 10/14/05
Page 7 of 7