

**EverGuard[®] Freedom[™] TPO HW and
EverGuard[®] Freedom[™] TPO
with RapidSeam[™] Technology
over Cementitious Wood Fiber Decks**

**Miami-Dade County
Notice of Acceptance (NOA)**

Updated: 12/09



*Quality You Can Trust...From
North America's Largest Roofing Manufacturer![™]*

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**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 and the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: EverGuard® Freedom™ TPO HW and EverGuard® Freedom™ TPO with RapidSeam® Technology Single Ply Roofing System over Cementitious Wood Fiber Deck

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 No. 09-0520.05 and consists of pages 1 through 7.
The submitted documentation was reviewed by Jorge L. Acebo.



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ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Single Ply Roofing
Materials:	TPO
Deck Type:	Cementitious Wood Fiber
Maximum Design Pressure	-320 psf

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 with RapidSeam® Technology	Various	ASTM D 6878	Self-Adhered thermoplastic olefin reinforced membrane.
EverGuard® Freedom™ TPO HW	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-55 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'	Proprietary	Low profile expansion joint cover.
EverGuard® Standard Walkway	1/8" x 30" x 36"	Proprietary	Standard duty walkway pad.
EverGuard® HD Walkway	1/4" x 30" x 36"	Proprietary	Heavy duty walkway pad.
FireOut™ Fire Barrier Coating	N/A	N/A	Low VOC, water-based coating system that provides outstanding flame spread and penetration to combustible roof decks in the event of fire.
VersaShield®	350 sq ft. roll	ASTM D 226	Non-Asphaltic Fiberglass-Based Underlayment
EverGuard® Preformed Vent Boots	1"-6" diameter pipes	Proprietary	.075" thick molded membrane with stainless steel clamping rings



<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
EverGuard® Prefabricated Expansion Joint Covers	4" & 6" bellows	Proprietary	.045" thick reinforced membrane with foam supported bellows
UN-55 Detailing Membrane	24" x 50" roll	Proprietary	.055" thick unreinforced membrane
EverGuard® UN-55 T-Joint Cover Patches	100 per box	Proprietary	.055" thick reinforced membrane
EverGuard® Walkway Rolls	30" x 50'	Proprietary	1/8" (125 mil) extruded and embossed TPO
EverGuard® TPO Cover Tape	6" x 100" roll	Proprietary	.045" TPO membrane laminated to white butyl tape
EverGuard® Preformed Split Pipe Boots	Various	Proprietary	Boots fabricated from .045" thick reinforced TPO membranes
EverGuard® RTS (Roof Transition Anchor) Strip	6" x 110' rolls	Proprietary	TPO membrane with pressure sensitive adhesive
EverGuard® Corner Curb Wraps	Various	Proprietary	Corners are fabricated from .045" thick reinforced TPO membrane
EverGuard Self-Adhering Standing Seam TPO	10' lengths	Proprietary	1-1/2" wide x 1-1/4" high x 10" in length profile with pressure sensitive adhesive and release liner
Freedom™ 5' x 0" Dual HW (Heat Weld) Flashing	5' x 50'	Proprietary	.045" and .060" reinforced membranes
EverGuard® TPO Fluted Corner		Proprietary	Non-reinforced TPO membrane
TOPCOAT® Flexseal	5 gallons	ASTM D 412 ASTM D 21 ASTM D 1475 ASTM E 1644	Solvent based synthetic elastomeric sealant.
EverGuard® Drain	Various	Proprietary	Spun aluminum drain prefashed with 55 mil unreinforced TPO membrane.
EverGuard® Scupper	4" x 6" x 12" 8" x 10" x 12"	Proprietary	TPO coated metal 55 mil unreinforced membrane
EverGuard® Vent		Proprietary	Vent manufactured out of reinforced 45 mil TPO membrane and galvanized steel.
EverGuard® Pourable Sealer Pocket	9" x 6" x 4" oval with 3" base flange	Proprietary	Pourable sealer.
EverGuard® Square Tube Wrap	Various	Proprietary	Square tube wrap
EverGuard® Inside Corner	6" x 6" x 5 1/4"	Proprietary	Inside corners of base and curb flashings.



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	GAF Materials Corp
EnergyGuard™ Composite RA, RN	Polyisocyanurate foam insulation with high density fiberboard or Permalite perlite insulation.	GAF Materials Corp
Structodek® TD	Flame Resistant High Density Wood Fiber board.	Knight-Celotex
Structodek®	Insulation board	Knight-Celotex
Dens Deck®, Dens Deck Prime®, Dens Deck DuraGuard™	Water-resistant gypsum board	Georgia Pacific
SECUROCK®	Gypsum roof board	USG

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™ Lite Deck Fasteners	Fastener for use in gypsum, tectum and lightweight insulating concrete decks.		GAF Materials Corp
2.	Drill-Tec™ Lite Deck Plates	Round galvalume stress plates.	3"	GAF Materials Corp
3.	Drill-Tec Locking Impact Nail	Base sheet fastener with integrated Plate.	1.8" long w/ 2.7" dia. plate	GAF Materials Corp
4.	Drill-Tec™ AccuTrac Plate or Drill-Tec™ Steel Plates	Square or Round Galvalume® coated steel plates	Plate Diameter: 3" and 3 ½"	GAF Materials Corp.

EVIDENCE SUBMITTED:

<u>Test Agency/Identifier</u>	<u>Report</u>	<u>Name</u>	<u>Date</u>
Underwriters Laboratory, Inc.	03CA38009	UL 790	01/21/04
IRT-ARCON, Inc.	02-026	TAS 114	07/26/02
	04-019	TAS 114	04/26/04
Factory Mutual Research Corp.	3020588	FMRC 4470	03/24/04
	3036980	FMRC 4470	08/14/09
Atlantic & Caribbean Roof Consulting, LLC	07-083	TAS 114-95	01/11/08
Exterior Research & Design, LLC	01880.09.03	TAS 117/ TAS 114-J	09.10.03



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APPROVED ASSEMBLIES:

Deck Type 5: Cementitious Wood Fiber, Insulated

Deck Description: Cementitious wood fiber

System Type A(1): Anchor sheet mechanically fastened; all layers of insulation 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, Ultra Minimum 1.5" thick	N/A	N/A

Note: All insulation shall be adhered to the anchor sheet in 3/4" to 1" wide beads 6" o.c. of OlyBond™ 500 Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Anchor Sheet: Install one ply of GAFGLAS® #75 Base Sheet, GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Flex Ply™ 6, GAFGLAS® STRATAVENT® Eliminator™ Nailable, RUBEROID® MOP Smooth, RUBEROID® 20, RUBEROID® Modified Base Sheet, RUBEROID® SBS Heat-Weld™ Smooth or RUBEROID® SBS Heat-Weld 25 base sheet mechanically fastened with minimum 1.8" Drill-Tec Locking Impact Nail 9" o.c. at the 3" side lap and in two 12" o.c. staggered rows in the field..

Membrane: One ply of EverGuard® Freedom™ TPO with RapidSeam® Technology 45, 60, 80 mil adhered to roof insulation with a minimum 6" side lap fully self-adhered or EverGuard® Freedom™ TPO HW 45, 60, 80 mil (self-adhered) with a minimum 3" side lap heat welded with a minimum 1.75" weld.

Surfacing: (Optional)

1. Advanced Green Technologies Photovoltaic Laminate solar energy collector auxiliary roof equipment installed in compliance with manufacturer's specifications and applicable Building Codes.
2. EverGuard® Self-Adhering Standing Seam TPO installed in compliance with manufacturer's specifications and applicable Building Codes.
3. TOPCOAT® Surface Seal, TOPCOAT® Fireshield® SB Solvent based Elastomeric Roofing Membrane applied at 1 to 1.5 gal./sq.

Maximum Design Pressure: -82.5 psf (See General Limitation #7.)



Deck Type 5: Cementitious Wood Fiber, Insulated

Deck Description: Cementitious wood fiber

System Type A(2): Base layer of insulation is adhered to roof deck with approved adhesive. Any subsequent layers are then 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/ft²
Securock[®] Minimum ¼" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in ¾" to 1" wide beads spaced 12" o.c. of OlyBond[™] 500 Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: One ply of EverGuard[®] Freedom[™] TPO with RapidSeam[™] Technology 45, 60, 80 mil self adhered to the roof insulation with a minimum 6" side lap fully self-adhered
or
EverGuard[®] Freedom[™] TPO HW 45, 60, 80 mil (self-adhered) with a minimum 3" side lap heat welded with a minimum 1.75" weld.

Surfacing: (Optional)

1. Advanced Green Technologies Photovoltaic Laminate solar energy collector auxiliary roof equipment installed in compliance with manufacturer's specifications and applicable Building Codes.
2. EverGuard[®] Self-Adhering Standing Seam TPO installed in compliance with manufacturer's specifications and applicable Building Codes.
3. TOPCOAT[®] Surface Seal, TOPCOAT[®] Fireshield[®] SB Solvent based Elastomeric Roofing Membrane applied at 1 to 1.5 gal./sq.

Maximum Design Pressure: -320 psf (See General Limitation #9)



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 and/or RAS 137. 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 9B-72 of the Florida Administrative Code.

END OF THIS ACCEPTANCE



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