MIAMI-DADE

BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

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

NOTICE OF ACCEPTANCE (NOA)

GAF Material Corporation
1361 Alps Road
Wayne, NJ 07470

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

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

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

DESCRIPTION: GAF EverGuard TPO Single Ply Roofing System over Steel Decks.

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

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

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

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

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

This NOA revises NOA# 03-0624.03 and consists of pages 1 through 9.
The submitted documentation was reviewed by Mark A. Zehnal, CPRC.

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: TPO, Single Ply Roofing

Deck Type: Steel
Maximum Design Pressure -67.5 psf
Fire Classification: See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
EverGuard TPO Membrane (White, Grey and Tan)	Various	ASTM D 6878	ThermoPlastic Olefin reinforced membrane.
EverGuard TPO (FB-500, FB-600 & FB-600) Ultra Membrane	Various	ASTM D 6878	ThermoPlastic Olefin reinforced, fleecebacked membrane.
EverGuard TSR-45 Utility Flashing Membrena	Various	ASTM D 6878	Reinforced flashing membrane.
EverGuard UN-60 Detailing Membrena	Various	ASTM D 6878	60 mil unreinforced flashing membrane.
EverGuard Coated Metal	4' x 8' 4' x 10' sheets	US CS-245-62	EverGuard membrane laminated 24 Ga. galvanized steel.
EverGuard Preformed Corners	4" x 4" x 4" 20 pcs. crtn.	ASTM D 4434	Prefabricated molded one piece corners.
EverGuard Preformed Vent Boots	1" - 8" od 6 pcs. crtn.	ASTM D 4434	Premolded vent pipe boots.
EverGuard TPO Bonding Adhesive	5 gallon pails	proprietary	Adhesive for fully adhered systems and membrane flashing.
EverGuard H_2O Bonding Adhesive	5 gallons	Proprietary	Water based adhesive for fully adhered systems and membrane flashing.
EverGuard TPO Cut Edge Sealant	1 quart squeeze tube	Proprietary	Solvent based sealant for TPO cut edges.
EverGuard Aluminum Termination Bar	1/8 x 1" x 10	PA 114	Lip termination bar.
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 Heavy Duty Walkway	1/4" x 30" x 36"		Heavy-duty walkway pad.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
EnergyGuard PolyIso (EverGuard Isocyanurate)	Polyisocyanurate foam insulation	GAF Materials Corp.
EnergyGuard RA, RN (GAFTEMP Isotherm RA & RN)	Polyisocyanurate foam insulation	GAF Materials Corp.
EnergyGuard Composite RA, RN (GAFTEMP® Composite, Composite RA & RN)	Polyisocyanurate foam insulation with high-density fiberboard or Permalite perlite insulation.	GAF Materials Corp.
EnergyGuard™ Perlitev(GAFTEMP® Perlite)	Perlite insulation board.	GAF Materials Corp.
EnergyGuard™ (GAFTEMP®) High Density Fiberboard	High density wood fiberboard insulation.	GAF Materials Corp.
BMCA EnergyGuard, RA	Polyisocynurate foam insulation	BMCA
BMCA EnergyGuard Composite	Polyisocyanurate/wood fiberboard composite.	BMCA
PYROX	Polyisocyanurate foam insulation	Apache Products Co.
ACFoam II	Polyisocyanurate foam insulation	Atlas Energy Products
Dens Deck	Water-resistant gypsum board	Georgia Pacific

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Drill-Tec® #12 Standard & #14 HD Roofing (EverGuard EGIN & EGHD) Fasteners	Insulation fastener for steel, wood & concrete decks.		GAF Materials Corp.
2.	Drill-Tec® #15 XHD Roofing (EverGuard XHD) Fasteners	Self tapping coated screw w/#3 Phillips head.		GAF Materials Corp.
3.	Drill-Tec® XHD (EverGuard EGX) Plates	AZ55 Galvalume coated barber steel plate used with fastener.	2-3/8" dia	GAF Materials Corp.
4.	Drill-Tec® HD (EverGuard EGHD) Plate	AZ55 Galvalume coated barber steel plate used with fastener.	2" dia	GAF Materials Corp.
5.	Drill-Tec® (EverGuard) Membrane Plates	Round 2" nylon reinforced seam plate.	2" round	GAF Materials Corp.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
6.	Drill-Tec® (EverGuard) Plastic Insulation Plates	Round 3" plastic plate.	3" round	GAF Materials Corp.
7.	Drill-Tec® (EverGuard) Metal Insulation Plates	Round 3" galvalume plate.	3" round	GAF Materials Corp.
8.	Drill-Tech SXHD	Self tapping coated carbon steel screw w/#3 Phillips head.		GAF Materials Corp.
9.	Drill-Tec® SXHD Plates	AZ55 Galvalume coated double barbed steel plate used with fastener.	2-3/4" dia	GAF Materials Corp.

EVIDENCE SUBMITTED:

Test Agency/Identifier	Name	Report	Date
Underwriters Laboratories	File R1306	Fire Classification	05/20/99
Factory Mutual Research Corp.	3003617	FM 4470	12/20/99
	3013861	FM 4470	03/28/03
	3015578		12/02/03
	3012721		02/11/04
	3015578		05/12/04
	3015029		02/19/04

APPROVED ASSEMBLIES:

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga. Grade 80 steel deck secured to minimum ¼" thick supports space at maximum 6 ft o.c. with ITW Buildex Traxx/5 spaced at 6" o.c. Deck side laps sre secured with ITW Buidex Traxx/1 fasteners spaced at maximum 24" o.c.

System Type C: Membrane mechanically attached over preliminary fastened insulation.

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, EnergyGuard ULTRA, AC Foam II Minimum 1.5" thick	**N/A**	**N/A**

Note: Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder may be installed over the deck or the base layer of insulation.

Barrier: (Optional) ½" or $^5/_8$" gypsum or Dens Deck secured to the deck with the insulation.

Membrane: EverGuard TPO, EverGuard TPO FB 450, FB 500 or FB 600 Ultra Membrane attached through the prelimiary attached insulation as specified below.

Fastening #1: Membrane is adhered using EverGuard H2O Bonding Adhesive 7885S01 roller applied to the underside of the membrane and to the substrate at a combined 0.83 gal/sq. (0.34 l/m2). One half of the adhesive was applied to the substrate and one half was applied to the bottom of the roof cover. The adhesive was allowed to dry and become tacky and the roof cover was then mated with the insulation and the top surface broomed and rolled with a weighted roller measuring approximately 18 in. (455 mm) in diameter and half filled with water. ***(Maximum Design Pressure –45 psf; See General Limitation #9)***

Maximum Design Pressure: See Fastening Options Above

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga. Grade E steel deck secured to minimum ¼" thick supports space at maximum 6 ft o.c. with ITW Buildex Traxx/4 or Traxx/5 spaced at 6" o.c. Deck side laps are secured with ITW Buidex Traxx/1 fasteners spaced at maximum 30" o.c.

System Type D: Membrane mechanically attached over preliminary fastened insulation.

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, EverGuard Isocyanurate, GAFTEMP Isothem R, Isotherm RA, Pyrox, AC Foam II, BMCA EnergyGuard, BMCA EnergyGuard RA, EnergyGuard RA		
Minimum 1" thick	**N/A**	**N/A**

Note: Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder may be installed over the deck or the base layer of insulation.

Barrier: (Optional) ½" or $^5/_8$" gypsum or Dens Deck secured to the deck with the insulation.

Membrane: EverGuard TPO or EverGuard TPO-EX Membrane attached through the prelimiary attached insulation as specified below.

Fastening #1: Membrane is mechanically attached using Drill-Tec #15 XHD (EverGuard XHD) Fasteners and Drill-Tec XHD (EverGuard EGX) Plates spaced 6" o.c. within minimum 5" wide laps. Laps are spaced at maximum 114.5" o.c. and sealed with a minimum 1.5" wide heat weld. ***(Maximum Design Pressure –45 psf; See General Limitation #7)***

Fastening #2: Membrane is mechanically attached using Drill-Tec #15 XHD (EverGuard XHD) Fasteners and Drill-Tec HD (EverGuard EGHD) Plates spaced 6" o.c. within minimum 5" wide laps. Laps are spaced at maximum 114" o.c. and sealed with a minimum 5" wide heat weld. ***(Maximum Design Pressure –67.5 psf; See General Limitation #7)***

Maximum Design Pressure: See Fastening Options Above

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga. Grade 80 steel deck secured to minimum ¼" thick supports space at maximum 6 ft o.c. with ITW Buildex Traxx/5 spaced at 6" o.c. Deck side laps sre secured with ITW Buidex Traxx/1 fasteners spaced at maximum 24" o.c.

System Type D(2): Membrane mechanically attached over preliminary fastened insulation.

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, EnergyGuard ULTRA, AC Foam II Minimum 1.5" thick	**N/A**	**N/A**

Note: Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder may be installed over the deck or the base layer of insulation.

Barrier: (Optional) ½" or $^5/_8$" gypsum or Dens Deck secured to the deck with the insulation.

Membrane: EverGuard TPO, EverGuard TPO FB 450, FB 500 or FB 600 Ultra Membrane attached through the prelimiary attached insulation as specified below.

Fastening #1: Membrane is adhered using EverGuard H2O Bonding Adhesive 7885S01 roller applied to the underside of the membrane and to the substrate at a combined 0.83 gal/sq. (0.34 l/m2). One half of the adhesive was applied to the substrate and one half was applied to the bottom of the roof cover. The adhesive was allowed to dry and become tacky and the roof cover was then mated with the insulation and the top surface broomed and rolled with a weighted roller measuring approximately 18 in. (455 mm) in diameter and half filled with water. ***(Maximum Design Pressure –45 psf; See General Limitation #9)***

Fastening #2: Membrane is mechanically attached using Drill-Tec SXHD Fasteners and Drill-Tec 2-3/4" Barbed SXHD Plates spaced 12" o.c. within minimum 5.5" wide laps. Laps are spaced at maximum 114.5" o.c. and sealed with a minimum 1.5" wide heat weld. ***(Maximum Design Pressure –45 psf; See General Limitation #7)***

Fastening #3: Membrane is mechanically attached using EverGuard XHD Fasteners and EverGuard 2-3/8" XHD Plates spaced 6" o.c. within minimum 6" wide laps. Laps are spaced at maximum 112.5" o.c. and sealed with a minimum 1-5/8" wide heat weld. ***(Maximum Design Pressure –52.5 psf; See General Limitation #7)***

Fastening #4: Membrane is mechanically attached using Drill-Tec #15 XHD (EverGuard XHD) Fasteners and Drill-Tec XHD (EverGuard EGX) Plates spaced 6" o.c. within minimum 5" wide laps. Laps are spaced at maximum 114.5" o.c. and sealed with a minimum 1.6" wide heat weld. ***(Maximum Design Pressure –52.5 psf; See General Limitation #7)***

Fastening #5: Membrane is mechanically attached using Drill-Tec XHD Fasteners and Drill-Tec 2-3/8" Barbed XHD Plates or Drill-Tec 2" Double Barbed XHD Plates spaced 6" o.c. within minimum 5" wide laps. Laps are spaced at maximum 115" o.c. and sealed with a minimum 1.5" wide heat weld. ***(Maximum Design Pressure –52.5 psf; See General Limitation #7)***

Fastening #6: Membrane is mechanically attached using Drill-Tec XHD Fasteners and Drill-Tec 2-3/4" Barbed SXHD Plates spaced 6" o.c. within minimum 6" wide laps. Laps are spaced at maximum 114" o.c. and sealed with a minimum 1.5" wide heat weld. ***(Maximum Design Pressure –60 psf; See General Limitation #7)***

Fastening #7: Membrane is mechanically attached using Drill-Tec #15 XHD (EverGuard XHD) Fasteners and Drill-Tec HD (EverGuard EGHD) Plates spaced 6" o.c. within minimum 5" wide laps. Laps are spaced at maximum 91.5" o.c. and sealed with a minimum 1.75" wide heat weld. ***(Maximum Design Pressure –60 psf; See General Limitation #7)***

Maximum Design Pressure: See Fastening Options Above

STEEL DECK SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117, calculations shall be signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant.

2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.

GENERAL LIMITATIONS:

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

END OF THIS ACCEPTANCE