

## MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

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www.miamidade.gov/economy

## DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

## **NOTICE OF ACCEPTANCE (NOA)**

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 EverGuard® TPO, EverGuard Extreme® TPO, EverGuard® TPO FB Ultra and EverGuard Extreme® TPO FB Ultra Single Ply Roofing Systems 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 No. 13-0603.08 and consists of pages 1 through 27. The submitted documentation was reviewed by Jorge L. Acebo.



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## **ROOFING SYSTEM APPROVAL**

<u>Category:</u> Roofing

**Sub-Category:** Single Ply Roofing

Material:TPODeck Type:WoodMaximum Design Pressure:-97.5 psf.

# TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

		Test	Product
Product	Dimensions	Specification	Description
EverGuard® TPO	Various	ASTM D 6878 TAS 131	Thermoplastic olefin reinforced single-ply membrane.
EverGuard® Extreme TPO	Various	ASTM D6878 TAS 131	Thermoplastic olefin reinforced single-ply membrane designed for advanced protection against heat aging and UV degradation.
EverGuard® TPO FB Ultra	Various	ASTM D 6878 TAS 131	Thermoplastic olefin reinforced, fleece back single-ply membrane
EverGuard Extreme® TPO FB Ultra	various	ASTM D6878 TAS 131	Thermoplastic olefin reinforced fleece back single-ply membrane designed for advanced protection against heat aging and UV degradation.
GAFGLAS <sup>®</sup> #80 Ultima <sup>™</sup> Base Sheet	39.37" (1 meter) wide	ASTM D4601	A smooth asphaltic base or base/ply sheet reinforced with fiberglass mat.
Ruberoid® 20 Smooth	39.37" (1 meter) wide	ASTM D6163	A SBS polymer-modified asphalt base or ply sheet reinforced with a fiberglass mat.
Ruberoid® Mop Smooth 1.5	39.37" (1 meter) wide	ASTM D6164	A smooth surfaced mop applied SBS base sheet reinforced with a polyester mat.
GAFGLAS® Stratavent® Nailable Venting Base Sheet	39.37" (1 meter) wide	ASTM D4897	A smooth surfaced asphaltic nailable venting base sheet reinforced with fiberglass mat. Bottom side surfaced with granules.
LRF Adhesive M	1:1 applicator	Proprietary	A dual component foamable adhesive.
LRF Adhesive O	1:1 applicator	Proprietary	A dual component polyurethane adhesive used to adhere single ply roof covers.
GAF 2-Part Roofing Adhesive	1:1 applicator	Proprietary	A dual component, low-rise, polyurethane froth adhesive.
EverGuard® #1121 Bonding Adhesive	5 gallons	Proprietary	Adhesive for fully adhered systems and membrane flashing.



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Product	Dimensions	Test Specification	Product Description
EverGuard® WB 181 Bonding Adhesive	5 gallons	Proprietary	A water based adhesive for TPO based membranes.
EverGuard® Low VOC TPO Bonding Adhesive	5 gallons	Proprietary	A contact type bonding adhesive for TPO single ply roofing membranes and flashings.
VersaShield® Fire-Resistant Roof Deck Protection	42" x 100' rolls	ASTM D226	Non-asphaltic fiberglass-based underlayment and /or fire barrier.
VersaShield <sup>®</sup> Solo <sup>™</sup> Fire- Resistant Slip Sheet	72" x 166.7' rolls	UL 790	Non-asphaltic fiberglass-based slip sheet and/or fire barrier.
EverGuard® TPO Coated Metal	4' x 10' sheets	Proprietary	24 gauge steel with 25 mil thick TPO membrane film.
EverGuard® Extreme® TPO Coated Metal	4' x 10' sheets	Proprietary	24 gauge steel with a 25 mil thick GAF TPO for edge detailing and designed for advanced protection against heat aging and UV degradation.
EverGuard® TPO Cover Tape	6" x 100' 10" x 100'	Proprietary	GAF TPO laminated to white butyl tape primarily used for edge metal details.
EverGuard® TPO Cover Tape Heat-Weld	6" x 100′	Proprietary	Flashing strip manufactured from unreinforced GAF TPO laminated to a six inch wide strip, half the strip with a self-adhered side and half the strip with a heat-weldable edge; used for edge metal details.
EverGuard® Extreme® TPO Cover Tape Heat-Weld	6" x 100′	Proprietary	Flashing strip manufactured from unreinforced GAF TPO designed for advanced protection against heat aging and UV degradation.  Laminated to a six inch wide strip, half the strip with a self-adhered side and half the strip with a heat-weldable edge; used for edge metal details.
EverGuard® TPO Detailing Membrane	24" x 50'	Proprietary	Unreinforced flashing material manufactured from GAF TPO.
EverGuard® Extreme® TPO Detailing Membrane	24" x 50'	Proprietary	Unreinforced flashing material manufactured from GAF TPO designed for advanced protection against heat aging and UV degradation.
EverGuard® TPO Flashing Strip	Various	Proprietary	Reinforced flashing membrane manufactured from GAF TPO.



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<b>D</b>		Test	Product
Product EverGuard® Extreme® TPO Flashing Strip	<b>Dimensions</b> Various	<b>Specification</b> Proprietary	Description Reinforced flashing membrane manufactured from GAF TPO designed for advanced protection against heat aging and UV degradation.
EverGuard® TPO Pourable Sealer Pocket	9" x 6" x 4" oval with 3" base flange	Proprietary	Pourable sealer pocket is molded with GAF TPO compound to a nominal 70 mil thickness designed for waterproofing irregular shaped roof penetrations.
EverGuard® Extreme® TPO Pourable Sealer Pocket	9" x 6" x 4" oval with 3" base flange	Proprietary	Pourable sealer pocket is molded from GAF TPO designed for advanced protection against heat aging and UV degradation compounded to a nominal 70 mil thickness designed for waterproofing irregular shaped roof penetrations.
EverGuard® TPO RTA (Roof Transition Anchor) Strip™	6" x 100′ roll	Proprietary	Reinforced GAF TPO membrane with pressure sensitive adhesive primarily used to secure membrane transitions from the field to vertical surfaces.
EverGuard® TPO Split Pipe Boot	1"- 2" 3" - 5" 6" - 8"	Proprietary	Reinforced GAF TPO membrane split to accommodate most common pipes and conduits.
EverGuard® Extreme® TPO Split Pipe Boot	1"- 2" 3" - 5" 6" - 8"	Proprietary	Reinforced GAF TPO designed for advanced protection against heat aging and UV degradation split to accommodate most common pipes and conduits.
EverGuard® TPO Square Tube Wrap	4" x 4" 4" x 6" 6" x 6"	Proprietary	Reinforced GAF TPO with split design overlap to be wrapped around square or rectangular tubing.
EverGuard® Extreme® TPO Square Tube Wrap	4" x 4" 4" x 6" 6" x 6"	Proprietary	Reinforced GAF TPO designed for advanced protection against heat aging and UV degradation with split design overlap to be wrapped around square or rectangular tubing.
EverGuard® TPO Corner Curb Wrap	Various	Proprietary	Corners fabricated from reinforced GAF TPO.
EverGuard® Extreme® TPO Corner Curb Wrap	Various	Proprietary	Corners fabricated from reinforced GAF TPO designed for advanced protection against heat aging and UV degradation.



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Product	Dimensions	Test Specification	Product Description
EverGuard® TPO Scupper	4" x 6" x 12" 8" x 10" x 12"	Proprietary	Scupper manufactured from coated metal and unreinforced GAF TPO.
EverGuard® TPO T-Joint Cover Patch	100 patches per box	Proprietary	T-Joint patch manufactured from unreinforced GAF TPO.
EverGuard® Extreme® TPO T-Joint Cover Patch	100 patches per box	Proprietary	T- Joint patch manufactured from unreinforced GAF TPO designed for advanced protection against heat aging and UV degradation.
EverGuard® TPO Vent	2 vents per carton	Proprietary	Vent manufactured from reinforced GAF TPO membrane and galvanized steel.
EverGuard® TPO T-Top Vent	4" or 6"	Proprietary	Vent manufactured from reinforced GAF TPO membrane and galvanized steel.
EverGuard® TPO Walkway Rolls	Rolls 1/8" x 30" x 50'	Proprietary	Standard duty TPO walkway rolls.
EverGuard® TPO Inside Corner	6" x 6" x 5½"	Proprietary	Inside corner manufactured from unreinforced GAF TPO.
EverGuard® Extreme® TPO Inside Corner	6" x 6" x 51/4"	Proprietary	Inside corner manufactured from unreinforced GAF TPO designed for advanced protection against heat aging and UV degradation.
EverGuard® TPO Universal Corners	various	Proprietary	Universal corners manufactured from GAF TPO that are heat seamable and designed to accommodate both inside and outside corners of base and curb flashings manufactured from GAF TPO.
EverGuard® Extreme® TPO Universal Corners	various	Proprietary	Universal corners manufactured from GAF TPO that are heat seamable and designed to accommodate both inside and outside corners of base and curb flashings manufactured from GAF TPO designed for advanced protection against heat aging and UV degradation.
EverGuard® TPO Vent Boot	1" - 6" o.d. 6 pcs. crtn.	Proprietary	Vent pipe boot molded from GAF TPO and supplied with stainless steel clamping rings.
EverGuard® Extreme® TPO Vent Boot	1" - 6" o.d. 6 pcs. crtn.	Proprietary	Vent pipe boot molded from GAF TPO designed for advanced protection against heat aging and UV degradation and supplied with stainless steel clamping rings.



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Product	Dimensions	Test Specification	Product Description
EverGuard® TPO Expansion Joint Cover	various	Proprietary	Low profile joint cover manufactured from reinforced GAF TPO.
EverGuard® TPO Cut Edge Sealant	1 quart squeeze tube	Proprietary	Clear solvent based sealant for TPO cut edges.
EverGuard® TPO Drain	various	Proprietary	Spun aluminum drain pre-flashed with unreinforced GAF TPO.
EverGuard® TPO Seam Cleaner	1 gallon	Proprietary	Solvent based seam cleaner.
EverGuard® TPO Primer	1 gallon	Proprietary	Solvent based TPO primer.
EverGuard® Low VOC TPO Primer	1 gallon	Proprietary	Low VOC, solvent based TPO primer.
EverGuard® TPO Standing Seam Tape	6"	Proprietary	A white butyl cover tape.
EverGuard® TPO Batten Seam Profile	10' length 1 ½" base 1 ¼" vertical rib	Proprietary	Accessory applied over GAF TPO roofing systems to simulate a standing seam metal roof.
EverGuard® TPO Standing Seam Profile	10' length 1 ½" base 1 ¼" vertical rib	Proprietary	Accessory applied over GAF TPO roofing systems to simulate a standing seam metal roof.
EverGuard® TPO Fluted Corner	8" diameter nominal .05" non-reinforced	Proprietary	Flashing for outside corners of base and curb flashing manufactured from non-reinforced GAF TPO.
EverGuard® Extreme® TPO Fluted Corner	8" diameter nominal .05" non-reinforced	Proprietary	Flashing for outside corners of base and curb flashing manufactured from non-reinforced GAF TPO designed for advanced protection against heat aging and UV degradation.
Topcoat® Membrane	1, 5 or 55 gallons	ASTM D6083	Acrylic, water based elastomeric membrane system designed to protect various types of roof surfaces.
Topcoat® TPO Red Primer	1 gallon	Proprietary	Tinted primer used on TPO to improve adhesion of Topcoat® coatings.
Topcoat® FireOut Fire Barrier Coating	5 or 55 gallons	ASTM E96	Low VOC, water-based fire barrier coating.
Topcoat® Flex Seal	1 or 5 gallons or 1 qt. tube	TAS 139	Solvent-based elastomeric sealant.



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## **APPROVED INSULATIONS:**

### TABLE 2

<u>Product Name</u>	<b>Product Description</b>	<u>Manufacturer</u> (With Current NOA)
EnergyGuard <sup>™</sup> Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard™ HD Polyiso Insulation	High density polyisocyanurate foam insulation	GAF
EnergyGuard™ HD Plus Polyiso Insulation	High density polyisocyanurate foam insulation	GAF
EnergyGuard™ Ultra Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard™ RA Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard <sup>™</sup> RH Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard™ RH HD Polyiso Insulation	High density polyisocyanurate foam insulation	GAF
EnergyGuard <sup>™</sup> RN Polyiso Insulation	Polyisocyanurate foam insulation	GAF
DensDeck® Roof Board	Gypsum board	Georgia-Pacific Gypsum LLC
Securock® Gypsum-Fiber Roof Board	Gypsum board	United States Gypsum Corporation
Securock® Glass-Mat Roof Board	Gypsum board	United States Gypsum Corporation
Structodek® High Density Fiberboard Roof Insulation	High-density fiberboard	Blue Ridge FiberBoard, Inc

## **APPROVED FASTENERS:**

Fastener Number	Product Name	TABLE 3 Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Drill-Tec <sup>™</sup> #12 Fastener	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.	#12 x 8" max. length, #3 Phillips head	GAF
2.	Drill-Tec <sup>™</sup> #14 Fastener	Truss head, self-drilling, pinch point, high thread fastener for use in steel, wood or concrete decks.	#14 x 16" max. Length, #3 Phillips head.	GAF

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## **APPROVED FASTENERS:**

APPROV	ED PASIENERS.			
Fastener Number	Product Name	TABLE 3 Product Description	Dimensions	Manufacturer (With Current NOA)
3.	Drill-Tec <sup>™</sup> AccuTrac <sup>®</sup> Recessed Plate	Galvalume <sup>®</sup> steel plate with recess for use with Drill- $Tec^{TM}$ fasteners.	3" square; .017" thick.	GAF
4.	Drill-Tec <sup>™</sup> AccuTrac <sup>®</sup> Flat Plate	A2-SS aluminized steel plate for use with Drill-Tec <sup>™</sup> fasteners.	3" square; .017" thick	GAF
5.	Drill-Tec <sup>™</sup> 2-3/8 in. Barbed XHD Plate	Round galvanized steel stress plates for use with Drill-Tec <sup>™</sup> fasteners.	2-3/8" round	GAF
6.	Drill-Tec <sup>™</sup> 2 in. Double Barbed XHD Plate	Round galvanized steel stress plates for use with Drill-Tec <sup>™</sup> fasteners.	2" round	GAF
7.	Drill-Tec <sup>™</sup> Eyehook AccuSeam Plate	Round Galvalume <sup>®</sup> steel plate for use with Drill-Tec <sup>™</sup> fasteners.	2-3/8" round	GAF
8.	Drill-Tec <sup>™</sup> 3" Steel Plate	Round Galvalume <sup>®</sup> steel stress plate with reinforcing ribs and recessed for use with Drill-Tec <sup>™</sup> fasteners.	3" round	GAF
9.	Drill-Tec <sup>™</sup> 3" Standard Steel Plate	Galvalume <sup>®</sup> coated steel stress plate for use with approved Drill-Tec <sup>™</sup> fasteners.	3" round	GAF
10.	Drill-Tec <sup>™</sup> 3 in. Ribbed Galvalume Plate (Flat)	Round Galvalume® plated steel stress plate with reinforcing ribs for use with Drill-Tec <sup>™</sup> fasteners.	3" round	GAF
11.	Drill-Tec <sup>™</sup> ASAP 3S	Drill-Tec <sup>™</sup> #12 Fastener with Drill-Tec <sup>™</sup> 3" Standard Steel Plate.	See Components	GAF
12.	Drill-Tec <sup>™</sup> RhinoBond <sup>®</sup> TPO XHD Plate	Round, coated Galvalume® plate (gold primer coating) used for TPO membranes.	3" Round	GAF
13.	Drill-Tec <sup>™</sup> RhinoBond <sup>®</sup> TPO XHD TreadSafe Plate	Gold primer coated plate for use with TPO membranes.	3" Round	GAF



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## **EVIDENCE SUBMITTED:**

Test Agency/Identifier	<u>Name</u>	<b>Report</b>	<b>Date</b>
UL LLC	03CA38009	UL 790	01/21/04
	08CA37926	UL 790	09/23/09
	08CA49140	UL 790	09/23/09
	R1306	UL 790	05/22/13
	R10689	UL 790	03/14/13
	R19254	ASTM D-226	09/13/01
Factory Mutual Research Corp.	3B9Q1.AM	FM 4470	01/08/98
	3020588	FM 4470	03/24/04
	3023458	FM 4470	07/18/06
	3026964	FM 4470	07/25/07
	3029832	FM 4470	05/11/07
	3033135	FM 4470	11/24/08
	3035658	FM 4470	09/16/09
	3038278 3038318	FM 4470 FM 4470	11/18/11 12/10/10
	3040738	FM 4470 FM 4470	12/10/10
	3040738	FM 4470	05/26/11
	3042905	FM 4470	01/10/12
	3045166	FM 4470	07/24/12
	3045363	FM 4470	10/12/12
	3047636	FM 4470	08/08/13
IRT-ARCON	02-005	TAS 114	01/24/02
	02-008	TAS 114	01/24/02
Atlantic & Caribbean Roof	08-022-R1	TAS 114	01/15/15
Consulting, LLC	11-056-R2	TAS 114	01/26/15
Exterior Research & Design, L.L.C.	01509.03.04-2	TAS 114-J	03/16/04
Trinity-ERD	G31360.03.10	ASTM D 6164	03/31/10
	G34140.04.11-2	ASTM D 6163	04/25/11
	G34140.04.11-4	ASTM D 4601	04/25/11
	G34140.04.11-5-R1	ASTM D 4897	04/25/11
PRI Construction Materials	GAF-122-02-01	TAS 139	05/09/06
Technologies, LLC	GAF-306-02-01	ASTM E96	08/23/11
	GAF-349-02-01	TAS 110	07/03/12
	GAF-369-02-01	ASTM C1289	10/23/12
	GAF-411-02-01	ASTM C1289	05/02/13
	GAF-412-02-01	ASTM C1289	05/02/13
	GAF-417-02-01	ASTM C1289	05/28/13
	GAF-421-02-01	ASTM D6878/TAS 131	10/23/13
	GAF-422-02-01	ASTM D6878/TAS 131	10/29/13
	GAF-424-02-01	ASTM D6878/TAS 131	11/11/13
	GAF-425-02-01	ASTM D6878/TAS 131	11/11/13
	GAF-435-02-01	TAS 117(B)	01/29/14



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<b>Test Agency/Identifier</b>	<u>Name</u>	<b>Report</b>	<b>Date</b>
PRI Construction Materials	GAF-462-02-01	ASTM D413	11/18/13
Technologies, LLC	GAF-462-02-02	TAS 117(B)	11/18/13
-	GAF-462-02-09	FM 4470	07/01/14
	GAF-462-02-10	FM 4470	07/01/14
	GAF-462-02-11	FM 4470	07/01/14
	GAF-464-02-01	ASTM C1289	02/06/14
	GAF-499-02-01	ASTM D6083	03/12/14
	GAF-508-02-01	Various	03/12/14
	GAF-515-02-01	FM 4470	05/13/14
	GAF-516-02-01	FM 4470	05/13/14
	GAF-516-02-02	FM 4470	06/06/14
	GAF-516-02-03	FM 4470	05/13/14



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#### **APPROVED ASSEMBLIES:**

Membrane Type: Single Ply, TPO

Deck Type 1I: Wood, Insulated

**Deck Description:** Min. 15/32" thick plywood attached to structural wood supports spaced maximum

24" o.c. using 8d ring shank nails spaced 6" o.c. at panel edge and intermediate

supports.

**System Type B:** Base layer(s) of insulation mechanically attached to roof deck. Top layer of

insulation is adhered. Membrane is subsequently fully adhered to top layer of

insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Fire Barrier: VersaShield® Fire-Resistant Roof Deck Protection, VersaShield® Solo™ Fire-(Optional) Resistant Slip Sheet or Topcoat® FireOut™ Fire Barrier Coating applied per

manufacturer's installation instructions.

One or more layers of any of the following.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft² EnergyGuard™ Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ Ultra

Polyiso Insulation

Minimum 2" thick 2, 3, 4, 8, 9, 10 1:2 ft<sup>2</sup>

Note: Base layer(s) shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Top Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
Securock® Gypsum-Fiber Roof Board		
Minimum 0.25" thick	N/A	N/A

Note: Apply top layer of insulation with GAF 2-Part Roofing Adhesive applied in 2.5" wide ribbons spaced 12" o.c. or with LRF Adhesive M applied in 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layer(s) with a layer of approved top layer insulation installed as the final membrane substrate.

Membrane: EverGuard® TPO, EverGuard® Extreme® TPO, EverGuard® TPO FB Ultra,

EverGuard<sup>®</sup> Extreme<sup>®</sup> TPO FB Ultra is adhered to the substrate as follows. Broom or roll the top surface of the membrane per manufacturer's installation instructions after adhering the membrane to the substrate to ensure complete bonding. Membrane side laps are minimum 3.0 in. wide and sealed with minimum 1.5 in. wide heat welds for automatic machine welding or with minimum 2.0 in. wide heat

welds for hand welding.

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# Membrane: (Continued)

EverGuard® TPO or EverGuard® Extreme® TPO adhered with EverGuard® TPO #1121 Bonding Adhesive applied per manufacturer's installation instructions at a total rate of 1.67 gal./sq. One half of the adhesive is applied to the substrate and the other half is applied to the back of the roof cover and sealed with minimum 1.5 in. wide heat welds for automatic machine welding or with minimum 2.0 in. wide heat welds for hand welding..

OR

EverGuard® TPO or EverGuard® Extreme® TPO adhered with EverGuard® Low VOC TPO Bonding Adhesive applied per manufacturer's installation instructions at a total rate of 0.91 gal./sq. One half of the adhesive is applied to the substrate and the other half is applied to the back of the roof cover and sealed with minimum 1.5 in. wide heat welds for automatic machine welding or with minimum 2.0 in. wide heat welds for hand welding.

OR

EverGuard® TPO or EverGuard® Extreme® TPO adhered with EverGuard® WB 181 Bonding Adhesive applied per manufacturer's installation instructions at a total rate of 0.83 gal./sq. Three quarters of the adhesive is applied to the substrate and one quarter of the adhesive is applied to the back of the roof cover and sealed with minimum 1.5 in. wide heat welds for automatic machine welding or with minimum 2.0 in. wide heat welds for hand welding.

OR

EverGuard® TPO FB Ultra or EverGuard® Extreme® TPO FB Ultra adhered with GAF 2-Part Roofing Adhesive applied in a spatter pattern at 3.75 lbs./sq. and sealed with minimum 1.5 in. wide heat welds for automatic machine welding or with minimum 2.0 in. wide heat welds for hand welding

OR

EverGuard® TPO or EverGuard® Extreme® TPO adhered with LRF Adhesive M applied in 0.75 – 1.0 in. wide ribbons spaced 4 in. o.c. for full coverage and sealed with minimum 1.5 in. wide heat welds for automatic machine welding or with minimum 2.0 in. wide heat welds for hand welding.

# Surfacing: (Optional)

Chosen components must be applied in accordance with manufacturer's application instructions. Any coating listed below used as a surfacing must be listed within a current NOA.

- 1. EverGuard® TPO Batten Seam Profile or EverGuard® TPO Standing Seam Profile installed in accordance with manufacturer's specifications and applicable Building Codes.
- 2. Topcoat® Membrane applied at 1 to 1.5 gal./sq.
- 3. Topcoat® TPO Red Primer applied at 0.5 gal./sq. prior to applying Topcoat® Membrane.

#### **Maximum Design**

**Pressure:** -52.5 psf. (See General Limitation #7)



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Membrane Type: Single Ply, TPO

Deck Type 1I: Wood, Insulated

**Deck Description:** <sup>19</sup>/<sub>32</sub>" CDX Plywood nailed 6"o.c. at the field of the sheet with #8 ring shank nails

and 6"o.c. at the perimeter of the sheet with #8 ring shank nails. Plywood installed

over wood rafters spaced 24"o.c.

System Type C(1): All layers of insulation are mechanically attached to roof deck. Membrane is

subsequently fully adhered to insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Fire Barrier: VersaShield® Fire-Resistant Roof Deck Protection, VersaShield® Solo™ Fire-(Optional) Resistant Slip Sheet or Topcoat® FireOut™ Fire Barrier Coating applied per

manufacturer's installation instructions.

Insulation Note: All Insulation layers shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

**Membrane:** EverGuard<sup>®</sup> TPO FB Ultra or EverGuard<sup>®</sup> Extreme<sup>®</sup> TPO FB Ultra is adhered to

the Securock® Gypsum-Fiber Roof Board in an approved asphalt applied within the EVT range and at a rate of 20-25 lbs./sq. with a 3" side lap and sealed with a 2" wide heat weld. Broom top surface of membrane to ensure complete bonding.

Surfacing: Chosen components must be applied in accordance with manufacturer's application instructions. Any coating listed below used as a surfacing must be

listed within a current NOA.

1. EverGuard® TPO Batten Seam Profile or EverGuard® TPO Standing Seam Profile installed in accordance with manufacturer's specifications and applicable Building Codes.

2. Topcoat<sup>®</sup> Membrane applied at 1 to 1.5 gal./sq.

3. Topcoat® TPO Red Primer applied at 0.5 gal./sq. prior to applying Topcoat® Membrane.

**Maximum Design** 

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



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**Membrane Type:** Single Ply, TPO Deck Type 1I: Wood, Insulated

**Deck Description:** Min. 15/32" thick plywood attached to structural wood supports spaced maximum

24" o.c. using 8d ring shank nails spaced 6" o.c. at panel edge and intermediate

supports.

System Type C(2): All layers of insulation are mechanically attached to roof deck. Membrane is

subsequently adhered to stress plates used to fasten insulation layer.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

DensDeck® Roof Board, Securock® Gypsum-Fiber Roof Board, Securock® Glass-Fire Barrier: Mat Roof Board, minimum 1/4" thick (see insulation note below for preliminary (Optional)

attachment details).

OR

VersaShield® Fire-Resistant Roof Deck Protection, VersaShield® Solo™ Fire-Resistant Slip Sheet or Topcoat® FireOut™ Fire Barrier Coating applied per

manufacturer's installation instructions.

One or more layers of any of the following.

**Insulation Layer Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

EnergyGuard<sup>™</sup> Polyiso Insulation, EnergyGuard<sup>™</sup> RA Polyiso Insulation, EnergyGuard™RH Polyiso Insulation, EnergyGuard™RN Polyiso Insulation, EnergyGuard™ Ultra Polviso Insulation, Structodek® High Density Fiberboard Roof Insulation, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation, EnergyGuard™ RH HD Polyiso Insulation

1:2.67 ft<sup>2</sup> Minimum 0.5" thick 2 and 12 or 13

DensDeck® Roof Board, Securock® Gypsum-Fiber Roof Board, Securock® Glass-Mat Roof Board Minimum 0.25" thick 2 and 12 or 13 1:2.67 ft<sup>2</sup>

Insulation Note: Insulation shall have preliminary attachment. Preliminarily attach insulation through the top layer and underlying layer(s), when present, with the RhinoBond® membrane stress plates applied as specified in the membrane section of this roofing system. See Roofing **Application Standard RAS 117 for fastening details.** 

EverGuard® TPO, EverGuard® Extreme® TPO mechanically fastened using Drill-Membrane:

> Tec<sup>™</sup> #14 Fasteners and Drill-Tec<sup>™</sup> RhinoBond<sup>®</sup> TPO XHD Plates or Drill-Tec<sup>™</sup> RhinoBond® TPO XHD Tread Safe Plates applied at a rate of 12 fasteners per 48 x

96 in. board (2.67 ft<sup>2</sup> per fastener).

The membrane is bonded to stress plates using the RhinoBond® Portable Bonding Tool per manufacturer's installation instructions. Weighted cooling magnets are placed over the bonded membrane/plates for a minimum of 45 seconds. Side laps are minimum 3" wide and sealed with a minimum 1.5" wide heat weld for automatic machine welding or a minimum 2" wide heat weld for hand welding.

\*Drill-Tec<sup>™</sup> RhinoBond<sup>®</sup> TPO XHD Tread Safe Plates shall only be used with a minimum insulation thickness of 2" and require a 5/8" diameter pilot hole when

used with gypsum or wood fiber top layer insulation.

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# **Surfacing:** (Optional)

Chosen components must be applied in accordance with manufacturer's application instructions. Any coating listed below used as a surfacing must be listed within a current NOA.

- 1. EverGuard® TPO Batten Seam Profile or EverGuard® TPO Standing Seam Profile installed in accordance with manufacturer's specifications and applicable Building Codes.
- 2. Topcoat<sup>®</sup> Membrane applied at 1 to 1.5 gal./sq.
- 3. Topcoat® TPO Red Primer applied at 0.5 gal./sq. prior to applying Topcoat® Membrane.

### **Maximum Design**

**Pressure:** -52.5 psf. (See General Limitation #7)



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Membrane Type: Single Ply, TPO

Deck Type 1I: Wood, Insulated

**Deck Description:** Min. 15/32" thick plywood attached to structural wood supports spaced maximum

24" o.c. using 8d ring shank nails spaced 6" o.c. at panel edge supports and 12" o.c.

at panel intermediate supports.

System Type C(3): All layers of insulation are mechanically attached to roof deck supports. Membrane

is subsequently adhered to stress plates used to fasten insulation layer.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Fire Barrier: DensDeck® Roof Board, Securock® Gypsum-Fiber Roof Board, Securock® Glass-(Optional) Mat Roof Board, minimum ¼" thick (see insulation note below for preliminary

attachment details).

OR

VersaShield® Fire-Resistant Roof Deck Protection VersaShield® Solo™ Fire-Resistant Slip Sheet or Topcoat® FireOut™ Fire Barrier Coating applied per

manufacturer's installation instructions.

One or more layers of any of the following.

Insulation Layer Insulation Fasteners Fastener (Table 3) Fastener

EnergyGuard<sup>™</sup> Polyiso Insulation, EnergyGuard<sup>™</sup> RA Polyiso Insulation, EnergyGuard<sup>™</sup> RH Polyiso Insulation, EnergyGuard<sup>™</sup> RN Polyiso Insulation, EnergyGuard<sup>™</sup> Ultra Polyiso Insulation, Structodek<sup>®</sup> High Density Fiberboard Roof Insulation, EnergyGuard<sup>™</sup> HD Polyiso Insulation, EnergyGuard<sup>™</sup> HD Polyiso Insulation, EnergyGuard<sup>™</sup> RH HD Polyiso Insulation
Minimum 0.5" thick

2 and 12 or 13

See Below

DensDeck® Roof Board, Securock® Gypsum-Fiber Roof Board, Securock® Glass-Mat Roof Board Minimum 0.25" thick 2 and 12 or 13 See Below

Insulation Note: All insulation shall have preliminary attachment prior to the installation of the roofing membrane 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. Please refer to Roofing Application Standard RAS 117 for insulation attachment requirements.



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#### **Membrane:**

EverGuard® TPO, EverGuard® Extreme® TPO mechanically fastened using Drill-Tec<sup>™</sup> #14 Fasteners and Drill-Tec<sup>™</sup> RhinoBond® TPO XHD Plates or Drill-Tec<sup>™</sup> RhinoBond® TPO XHD Tread Safe Plates. Fasteners are driven through the plywood roof deck and into the structural wood supports as described in the fastening details below.

The membrane is bonded to stress plates using the RhinoBond® Portable Bonding Tool per manufacturer's installation instructions. Weighted cooling magnets are placed over the bonded membrane/plates for a minimum of 45 seconds. Side laps are minimum 3" wide and sealed with a minimum 1.5" wide heat weld for automatic machine welding or a minimum 2" wide heat weld for hand welding.

\*Drill-Tec<sup>™</sup> RhinoBond® TPO XHD Tread Safe Plates shall only be used with a minimum insulation thickness of 2" and require a 5/8" diameter pilot hole when used with gypsum or wood fiber top layer insulation.

**Fastening #1:** 

Fasteners are driven through the wood deck and into the structural wood supports in a maximum 24 x 36 in. grid.

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

Fastening #2:

Fasteners are driven through the wood deck and into the structural wood supports in a maximum 24 x 24 in. grid.

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

**Fastening #3:** 

Fasteners are driven through the wood deck and into the structural wood supports in a maximum 18 x 24 in. grid.

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

**Surfacing:** (Optional)

Chosen components must be applied in accordance with manufacturer's application instructions. Any coating listed below used as a surfacing must be listed within a current NOA.

- 1. EverGuard® TPO Batten Seam Profile or EverGuard® TPO Standing Seam Profile installed in accordance with manufacturer's specifications and applicable Building Codes.
- 2. Topcoat® Membrane applied at 1 to 1.5 gal./sq.
- 3. Topcoat® TPO Red Primer applied at 0.5 gal./sq. prior to applying Topcoat® Membrane.

#### **Maximum Design**

**Pressure:** See fastening options above.



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Deck Type 1I: Wood, Insulated

**Deck Description:**  $^{19}/_{32}$ " or greater plywood secured 6 in. o.c. at panel end and intermediate supports

to structural lumber joists spaced maximum 24 in. o.c using 8d ring shank nails

or wood plank.

System Type D(1): All insulation is loose laid with preliminary attachment to roof deck. Membrane is

subsequently mechanically fastened through insulation to the wood deck.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Fire Barrier: VersaShield® Fire-Resistant Roof Deck Protection, VersaShield® Solo™ Fire-(Optional) Resistant Slip Sheet or Topcoat® FireOut™ Fire Barrier Coating applied per

manufacturer instructions.

One or more layers of any of the following.

Base Insulation Layer (Optional) Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

EnergyGuard<sup>™</sup> Polyiso Insulation, EnergyGuard<sup>™</sup> RA Polyiso Insulation, EnergyGuard<sup>™</sup> RH Polyiso Insulation, EnergyGuard<sup>™</sup> RN Polyiso Insulation, EnergyGuard<sup>™</sup> Ultra Polyiso Insulation, EnergyGuard<sup>™</sup> HD Polyiso Insulation, EnergyGuard<sup>™</sup> HD Polyiso Insulation

Minimum 0.5" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

DensDeck® Roof Board, Securock® Gypsum-Fiber Roof Board, Securock® Glass-Mat Roof Board Minimum 1/4" thick

N/A

N/A

Insulation Note: Insulation layer(s) above shall have preliminary attachment prior to the installation of the roofing membrane 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 Insulation panels shall be mechanically fastened along with the roof membrane as specified below. Please refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

**Membrane:** EverGuard® TPO, EverGuard® Extreme® TPO or EverGuard® TPO FB Ultra is

mechanically attached with Drill-Tec<sup>™</sup> #14 Fasteners and Drill-Tec<sup>™</sup> 2-3/8 in. Barbed XHD Barbed Plates, Drill-Tec<sup>™</sup> 2 in. Double Barbed XHD Plates or Drill-Tec<sup>™</sup> Eyehook AccuSeam Plates spaced 6" o.c. within fastener rows spaced maximum 114.5" o.c. The minimum 5" wide side laps are sealed with minimum 1¾" wide heat welds for automatic machine welding and with minimum 2" wide

welds for hand welding.



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## **Surfacing:** (Optional)

Chosen components must be applied in accordance with manufacturer's application instructions. Any coating listed below used as a surfacing must be listed within a current NOA.

- 1. EverGuard® TPO Batten Seam Profile or EverGuard® TPO Standing Seam Profile installed in accordance with manufacturer's specifications and applicable Building Codes.
- 2. Topcoat® Membrane applied at 1 to 1.5 gal./sq.
- 3. Topcoat® TPO Red Primer applied at 0.5 gal./sq. prior to applying Topcoat® Membrane.

#### **Maximum Design**

**Pressure:** -45 psf. (See General Limitation #7)



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Single Ply, TPO **Membrane Type:** Wood, Insulated Deck Type 1I:

<sup>19</sup>/<sub>32</sub>" or greater plywood attached to structural wood supports spaced maximum 24" **Deck Description:** 

o.c. using 8d common nails spaced 6" o.c. at all panel edges and intermediary

supports.

System Type D(2): All insulation is loose laid with preliminary attachment to wood deck. Membrane is

subsequently mechanically fastened through insulation to the wood deck.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

DensDeck® Roof Board, Securock® Gypsum-Fiber Roof Board, Securock® Glass-Fire Barrier: Mat Roof Board, minimum 1/4" thick (see insulation note below for preliminary (Optional)

attachment details).

OR

VersaShield® Fire-Resistant Roof Deck Protection, VersaShield® Solo™ Fire-Resistant Slip Sheet or Topcoat® FireOut<sup>™</sup> Fire Barrier Coating applied per

manufacturer's installation instructions.

One or more layers of any of the following.

**Base Insulation Laver Insulation Fasteners** Fastener (Table 3) Density/ft<sup>2</sup>

EnergyGuard<sup>™</sup> Polyiso Insulation, EnergyGuard<sup>™</sup> RA Polyiso Insulation,

EnergyGuard™RH Polyiso Insulation, EnergyGuard™RN Polyiso Insulation, EnergyGuard™ **Ultra Polviso Insulation** 

Minimum 1.5" thick

N/A N/A

**Top Insulation Layer (Optional) Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

Dens Deck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board

Minimum 0.25" thick N/A N/A

EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation, EnergyGuard™ **RH HD Polviso Insulation** 

Minimum 0.5" thick N/A N/A

Insulation Note: All insulation shall have preliminary attachment prior to the installation of the roofing membrane 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. Please refer to Roofing Application Standard RAS 117 for insulation attachment requirements.



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EverGuard® TPO, EverGuard® Extreme® TPO or EverGuard® TPO FB Ultra **Membrane:** 

mechanically fastened using Drill-Tec<sup>™</sup> #14 Fasteners and Drill-Tec<sup>™</sup> 2 in. Double

Barbed XHD Plates, Drill-Tec<sup>™</sup> 2-3/8 in. Barbed XHD Plates or Drill-Tec<sup>™</sup> Eyehook AccuSeam Plates spaced 6" o.c. in rows spaced 55" o.c. The outside 1.75" of the 5" lap is heat welded and the fasteners are centered within the

remaining 3.25" lap area.

**Surfacing:** Chosen components must be applied in accordance with manufacturer's (Optional) application instructions. Any coating listed below used as a surfacing must be

listed within a current NOA.

EverGuard® TPO Batten Seam Profile or EverGuard® TPO Standing Seam Profile installed in 1. accordance with manufacturer's specifications and applicable Building Codes.

Topcoat<sup>®</sup> Membrane applied at 1 to 1.5 gal./sq. 2.

3. Topcoat® TPO Red Primer applied at 0.5 gal./sq. prior to applying Topcoat® Membrane.

## **Maximum Design**

-52.5 psf. (See General Limitation #7) **Pressure:** 



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**Membrane Type:** Single Ply, TPO Deck Type 1I: Wood, Insulated

Min. 19/32" thick plywood attached to structural wood supports spaced maximum **Deck Description:** 

24" o.c. using 8d ring shank nails spaced 4" o.c. at panel end and intermediate

supports.

System Type D(3): All insulation is loose laid with preliminary attachment to roof deck. Membrane is

subsequently mechanically fastened through insulation to wood deck.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

DensDeck® Roof Board, Securock® Gypsum-Fiber Roof Board, Securock® Glass-Fire Barrier: Mat Roof Board, minimum 1/4" thick (see insulation note below for preliminary (Optional)

attachment details).

OR

VersaShield® Fire-Resistant Roof Deck Protection, VersaShield® Solo™ Fire-Resistant Slip Sheet or Topcoat® FireOut<sup>™</sup> Fire Barrier Coating applied per

manufacturer's installation instructions.

One or more layers of any of the following.

**Base Insulation Laver Insulation Fasteners** Fastener (Table 3) Density/ft<sup>2</sup>

EnergyGuard<sup>™</sup> Polyiso Insulation, EnergyGuard<sup>™</sup> RA Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™

HD Plus Polyiso Insulation, EnergyGuard™ RH HD Polyiso Insulation

Minimum 0.5" thick N/A N/A

**Top Insulation Layer (Optional) Insulation Fasteners** Fastener (Table 3) Density/ft<sup>2</sup>

Dens Deck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof **Board** 

Minimum 0.25" thick N/A N/A

Insulation Note: All insulation shall have preliminary attachment prior to the installation of the roofing membrane 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. Please refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

EverGuard® TPO or EverGuard® Extreme® TPO mechanically fastened using Drill-Membrane:

Tec<sup>™</sup> #14 Fasteners and Drill-Tec<sup>™</sup> 2 in. Double Barbed XHD Plates. Drill-Tec<sup>™</sup> 2-3/8 in. Barbed XHD Plates or Drill-Tec<sup>™</sup> Eyehook AccuSeam Plates spaced maximum 8" o.c. in fastener rows spaced maximum 55" o.c. The minimum 5" wide side laps are sealed with minimum 1.5" wide heat welds for automatic

machine welding or with minimum 2" welds for hand welding.

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# Surfacing: (Optional)

Chosen components must be applied in accordance with manufacturer's application instructions. Any coating listed below used as a surfacing must be listed within a current NOA.

- 1. EverGuard® TPO Batten Seam Profile or EverGuard® TPO Standing Seam Profile installed in accordance with manufacturer's specifications and applicable Building Codes.
- 2. Topcoat® Membrane applied at 1 to 1.5 gal./sq.
- 3. Topcoat® TPO Red Primer applied at 0.5 gal./sq. prior to applying Topcoat® Membrane.

### **Maximum Design**

**Pressure:** -45 psf. (See General Limitation #7)



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**Membrane Type:** Single Ply, TPO

**Deck Type 1**: Wood, Non-Insulated

**Deck Description:** <sup>19</sup>/<sub>32</sub>" or greater plywood or wood plank

System Type E(1): Anchor sheet mechanically attached to roof deck. Membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Fire Barrier: (Optional)

DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board, minimum ¼" thick, secured with preliminary attachment at a minimum application rate of two fasteners per board for fire barrier boards having no dimension greater than 4 ft. and four fasteners for any fire barrier board having no dimension greater than 8 ft.

OR

VersaShield® Fire Resistant Roof Deck Protection, VersaShield® Solo™ Fire-Resistant Slip Sheet or Topcoat® FireOut™ Fire Barrier Coating applied per

manufacturer's installation instructions.

**Anchor sheet:** GAFGLAS<sup>®</sup> #80 Ultima<sup>™</sup> Base Sheet, GAFGLAS<sup>®</sup> Stratavent<sup>®</sup> Nailable Venting

Base Sheet, Ruberoid® 20 Smooth or Ruberoid® Mop Smooth 1.5 mechanically

fastened to deck as described below.

Fastening Options:

Anchor sheet attached to deck with approved minimum  $1\frac{1}{4}$ " annular ring shank nails and  $1\frac{5}{8}$ " tin caps at a fastener spacing of 9" o.c. at the 4" lap and in two

staggered rows 9" o.c. in the field.

**Membrane:** EverGuard® TPO FB Ultra or EverGuard® Extreme® TPO FB Ultra adhered to

anchor sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. with a 3" side lap and sealed with a 2" wide heat weld for automatic machine welding or a minimum 2" wide heat weld for hand

welding. Broom top surface of membrane to ensure complete bonding.

**Surfacing:** (Optional)

Chosen components must be applied in accordance with manufacturer's application instructions. Any coating listed below used as a surfacing must be listed within a current NOA.

- 1. EverGuard® TPO Batten Seam Profile or EverGuard® TPO Standing Seam Profile installed in accordance with manufacturer's specifications and applicable Building Codes.
- 2. Topcoat® Membrane applied at 1 to 1.5 gal./sq.
- 3. Topcoat® TPO Red Primer applied at 0.5 gal./sq. prior to applying Topcoat® Membrane.

**Maximum Design** 

**Pressure:** -60 psf. (See General Limitation #7)



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**Membrane Type:** Single Ply, TPO

**Deck Type 1**: Wood, Non-Insulated

**Deck Description:** <sup>19</sup>/<sub>32</sub>" plywood nailed 6" o.c. at the field of the sheet with #8 ring shank nails and

4" o.c. at the perimeter of the plywood sheet with #10 ring shank nails. Plywood

installed over wood supports spaced maximum 24" o.c.

System Type E(2): Membrane mechanically attached through the wood deck and into the structural

wood supports.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Fire Barrier: (Optional)

DensDeck® Roof Board, Securock® Gypsum-Fiber Roof Board, Securock® Glass-Mat Roof Board, minimum ½" thick, secured with preliminary attachment at a minimum application rate of two fasteners per board for fire barrier boards having no dimension greater than 4 ft. and four fasteners for any fire barrier board having no dimension greater than 8 ft.

OR

VersaShield® Fire Resistant Roof Deck Protection, VersaShield® Solo™ Fire-Resistant Slip Sheet or Topcoat® FireOut™ Fire Barrier Coating applied per

manufacturer instructions.

**Membrane:** EverGuard® TPO, EverGuard® Extreme® TPO, EverGuard® TPO FB Ultra 5.0'

wide membranes mechanically fastened through the wood deck into the wood deck supports at a maximum row spacing of 48" o.c. with Drill-Tec<sup>™</sup> #14 Fasteners and Drill-Tec<sup>™</sup> AccuTrac Flat Plates spaced 6" o.c. in the minimum 5" wide side lap of the sheets followed by applying a minimum 1½" wide heat weld for automatic

machine welding or a minimum 2" wide heat weld for hand welding.

**Surfacing:** (Optional)

Chosen components must be applied in accordance with manufacturer's application instructions. Any coating listed below used as a surfacing must be listed within a current NOA.

- 1. EverGuard® TPO Batten Seam Profile or EverGuard® TPO Standing Seam Profile installed in accordance with manufacturer's specifications and applicable Building Codes.
- 2. Topcoat<sup>®</sup> Membrane applied at 1 to 1.5 gal./sq.
- 3. Topcoat® TPO Red Primer applied at 0.5 gal./sq. prior to applying Topcoat® Membrane.

**Maximum Design** 

**Pressure:** -97.5 psf. (See General Limitation #7)



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Single Ply, TPO **Membrane Type:** 

Deck Type 1: Wood, Non-Insulated

**Deck Description:** Min. 15/32" thick plywood attached to structural wood supports spaced maximum

24" o.c. using 8d ring shank nails spaced 6" o.c. at panel end supports and 12" o.c.

along panel intermediate supports.

Membrane adhered to stress plates which are mechanically attached to structural System Type E(3):

wood supports.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

VersaShield® Fire-Resistant Roof Deck Protection, VersaShield® Solo™ Fire-Fire Barrier: (Optional)

Resistant Slip Sheet or Topcoat® FireOut™ Fire Barrier Coating applied per

manufacturer instructions.

EverGuard® TPO or EverGuard® Extreme® TPO mechanically fastened using Drill-Membrane:

Tec<sup>™</sup> #14 Fasteners and Drill-Tec<sup>™</sup> RhinoBond<sup>®</sup> TPO XHD Plates. Fasteners are driven through the plywood roof deck and into the structural wood supports as

described in the fastening details below.

The roof cover is bonded to stress plates using the RhinoBond® Portable Bonding Tool per manufacturer's installation instructions. Weighted cooling magnets are placed over the bonded membrane/plates for a minimum of 45 seconds. Side laps are minimum 3" wide and sealed with a minimum 1.5" wide heat weld positioned

on the outer edge of the lap.

Fasteners are driven through the wood deck and into the structural wood supports in a Fastening #1:

maximum 24 x 36 in. grid.

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

Fasteners are driven through the wood deck and into the structural wood supports in a Fastening #2:

maximum 24 x 24 in. grid.

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

Fasteners are driven through the wood deck and into the structural wood supports in a **Fastening #3:** 

maximum 18 x 24 in. grid.

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

**Surfacing:** Chosen components must be applied in accordance with manufacturer's

application instructions. Any coating listed below used as a surfacing must be

listed within a current NOA.

EverGuard® TPO Batten Seam Profile or EverGuard® TPO Standing Seam Profile installed in 1.

accordance with manufacturer's specifications and applicable Building Codes.

Topcoat® Membrane applied at 1 to 1.5 gal./sq. 2.

3. Topcoat® TPO Red Primer applied at 0.5 gal./sq. prior to applying Topcoat® Membrane.

Maximum Design

(Optional)

Pressure: See fastening options above.



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#### **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 61G20-3 of the Florida Administrative Code.

## END OF THIS ACCEPTANCE



NOA No.: 15-0203.20 Expiration Date: 09/22/15 Approval Date: 04/23/15

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