MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
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DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

GAF
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 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 Single Ply Roofing Systems 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.

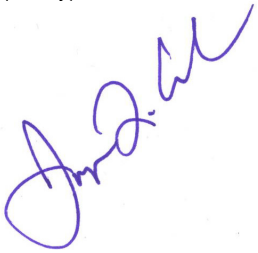
RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

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 renews and revises NOA No. 09-0115.04 and consists of pages 1 through 25.
The submitted documentation was reviewed by Jorge L. Acebo.



ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Single Ply Roofing
Material: TPO
Deck Type: Steel
Maximum Design Pressure: -120 psf

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
EverGuard® TPO	Various	ASTM D 6878 TAS 131	Thermoplastic Olefin reinforced membrane.
EverGuard Extreme® TPO	Various	ASTM D6878 TAS 131	Thermoplastic Olefin reinforced membrane.
EverGuard® TPO Coated Metal	4' x 10' sheets	Proprietary	TPO membrane laminated to 25 Ga. galvanized sheet metal.
EverGuard® TPO Cover Tape	6" x 100′	Proprietary	30 mil TPO membrane laminated to white butyl tape.
EverGuard® TPO Detailing Membrane	24" x 50'	Proprietary	55 mil thick reinforced TPO membrane.
EverGuard® TPO Flashing Strip	Various	Proprietary	Reinforced flashing membrane.
EverGuard® TPO Pourable Sealer Pocket	9" x 6" x 4" oval with 3" base flange	Proprietary	Pourable sealer pocket is molded with TPO compound to a nominal 70 mil thickness.
EverGuard® TPO RTA (Roof Transition Anchor) Strip™	6" x 100′ roll	Proprietary	Reinforced TPO membrane with pressure sensitive adhesive.
EverGuard® TPO Split Pipe Boot	Various	Proprietary	45 mil thick reinforced TPO membrane split to accommodate most common pipes and conduits.
EverGuard® TPO Square Tube Wrap	Various	Proprietary	Square Tube Wraps are fabricated from 45 mil thick reinforced TPO membrane.
EverGuard® TPO Corner Curb Wrap	Various	Proprietary	Corners are fabricated from 45 mil thick reinforced TPO membrane.
EverGuard® TPO Scupper	8" x 10" x 12"	Proprietary	TPO coated metal 55 mil unreinforced membrane.
EverGuard® TPO T-Joint Cover Patch	100 patches per box	Proprietary	55 mil thick unreinforced membrane.
EverGuard® TPO Vent	2 vents per carton	Proprietary	Vent manufactured out of reinforced 45 mil TPO membrane and galvanized steel.

Product	Dimensions	Test Specification	Product Description
EverGuard® TPO T-Top Vent	4" or 6"	Proprietary	Vent manufactured out of reinforced 45 mil TPO membrane and galvanized steel.
EverGuard® TPO Walkway Rolls	Rolls 1/8”x30”x50’	Proprietary	Standard duty walkway rolls.
EverGuard® TPO Inside Corner	6" x 6" x 5¼"	Proprietary	Inside corners of base and curb flashings.
EverGuard® TPO Universal Corners	Various	Proprietary	Universal corners accommodate both inside and outside corners of base and curb flashings.
EverGuard® TPO Vent Boot	1" - 6" o.d. 6 pcs. Crtn.	Proprietary	Vent pipe boots.
EverGuard® TPO Expansion Joint Cover	Various	Proprietary	Low profile joint cover.
EverGuard® TPO Fluted Corner	8” diameter nominal .05” non-reinforced	Proprietary	Flashing outside corners of base and curb flashing.
EverGuard® TPO Cut Edge Sealant	1 quart squeeze tube	Proprietary	Solvent based sealant for TPO cut edges.
EverGuard® TPO Drain	Various	Proprietary	Spun aluminum drain preflashed with 55 mil. unreinforced TPO membrane.
EverGuard® TPO Seam Cleaner	1 gallon	Proprietary	Solvent-based seam cleaner
EverGuard® TPO Standing Seam Tape	6"	Proprietary	TPO white cover tape.
EverGuard Extreme® TPO T-Joint Cover Patch	100 patches per box	Proprietary	55 mil thick unreinforced Extreme membrane.
EverGuard Extreme® TPO Inside Corner	6" x 6" x 5¼"	Proprietary	Inside corners of base and curb flashings.
EverGuard Extreme® TPO Fluted Corner	8” diameter nominal .05” non-reinforced	Proprietary	Flashing outside corners of base and curb flashing.
EverGuard Extreme® TPO Flashing Strip	Various	Proprietary	Reinforced Extreme flashing membrane.
EverGuard Extreme® TPO Detailing Membrane	24" x 50'	Proprietary	55 mil thick reinforced Extreme TPO membrane.
EverGuard® 1121 Bonding Adhesive	5 gallons	Proprietary	Adhesive for fully adhered systems and membrane flashing.
Matrix™ 307 Premium Asphalt Primer	5 gallon pails	ASTM D41	Asphalt concrete primer used to promote adhesion of asphalt.

Product	Dimensions	Test Specification	Product Description
EverGuard® WB 181 Bonding Adhesive	5 gallons	Proprietary	Water based rubberized adhesive for fully adhered systems and membrane flashings.
EverGuard® Low VOC TPO Bonding Adhesive	5 gallon pails	Proprietary	A contact type bonding adhesive for TPO single ply roofing membranes and flashings.
LRF Adhesive M	Dual component cylinders	Proprietary	A two component, one-step, foamable adhesive.
Topcoat® Elastomeric Roofing Membrane	5 gallon pails	ASTM D6083	An acrylic, water based elastomeric membrane system used to protect various types of roofing surfaces.
EverGuard® TPO Batten Seam Profile		Proprietary	Accessory applied over TPO roofing system to simulate standing seam metal roof.
EverGuard® TPO Standing Seam Profile		Proprietary	Accessory applied over TPO roofing system to simulate standing seam metal roof.
Weather Watch® XT	66.7 x 36	ASTM D1970 ASTM D4601	SBS modified self-adhering vapor barrier/leak barrier.
Underroof™ 2	37.8 x 39.4	ASTM D1970	SBS modified self-adhering vapor barrier/leak barrier.
Underroof™ HT	61 x 39.4	ASTM D1970	SBS modified self-adhering vapor barrier/leak barrier.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
EnergyGuard™ Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard™ RA Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard™ RH Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard™ RN Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard™ Perlite Roof Insulation	Perlite insulation board.	GAF
Securock® Gypsum-Fiber Roof Board	Insulation board	USG
Structodek® High Density Fiber Board Roof Insulation	High Density Fiber Board	Blue Ridge FiberBoard, Inc.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
DensDeck® Roof Board, DensDeck® Prime® Roof Board, DensDeck® DuraGuard® Roof Board	Gypsum board	Georgia-Pacific Gypsum LLC

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Drill-Tec™ #12 Fastener	Insulation fastener and base ply fastener	various	GAF
2.	Drill-Tec™ #14 Fastener	Insulation fastener and base ply fastener	various	GAF
3.	Drill-Tec™ XHD Fastener	Insulation fastener and base ply fastener	various	GAF
4.	Drill-Tec™ SXHD	#21 Self tapping coated carbon steel screw w/#3 Phillips head.	various	GAF
5.	Drill-Tec™ 2-3/8 in. Barbed XHD Plate	Round galvalume coated steel plate	Plate Diameter: 2-3/8"	GAF
6.	Drill-Tec™ 2 in. Double Barbed XHD Plate	Round galvalume coated steel plate	Plate Diameter: 2"	GAF
7.	Drill-Tec™ 2-3/4 in. Barbed XHD Plate	Round galvalume coated steel plate	Plate Diameter: 2-3/4"	GAF
8.	Drill-Tec™ 3” Standard Steel Plate	Round galvalume stress plates.	Plate Diameter: 3"	GAF
9.	Drill-Tec™ AccuTrac® Flat Plate	Square galvalume stress plates.	Plate Diameter: 3"	GAF
10.	Drill-Tec™ 3” Steel Plate	Round galvalume stress plates.	Plate Diameter: 3"	GAF
11.	Drill-Tec™ ASAP 3S	#12 Fastener with 3” galvalume stress plates.	Plate Diameter: 3"	GAF
12.	Drill-Tec™ TPO XHD Plates	Primer coated plate for use with welded TPO membranes.	Plate Diameter: 3"	GAF
13.	Drill-Tec™ AccuTrac® Recessed Plate	Square galvalume stress plates.	Plate Diameter: 3"	GAF

APPROVED SURFACING/COATING OPTIONS:

TABLE 4

Chosen components must be applied according to manufacturer's application instructions. Any coating, listed below, used as a surfacing, must be listed within a current NOA.

System Number	Application
1.	EverGuard® TPO Batten Seam Profile or EverGuard® Self-Adhering Standing Seam TPO installed in compliance with manufacturer's specifications and applicable Building Codes.
2.	Topcoat® Elastomeric Roofing Membrane applied in compliance with manufacturer's specifications and applicable Building Codes.

EVIDENCE SUBMITTED:

Test Agency/Identifier	Name	Report	Date
Underwriters Laboratories	UL 790	File R1306	05/20/99
Factory Mutual Research Corp.	FM 4470	3003617	12/20/99
	FM 4470	3013861	03/28/03
	FM 4470	3012721	02/11/04
	FM 4470	3015578	05/12/04
	FM 4470	3015029	02/19/04
	FM 4470	3032856	11/24/08
	FM 4470	3033135	11/24/08
	FM 4470	3026964	07/25/07
	FM 4470	3040234	02/23/11
	FM 4470	3023458	07/18/06
	FM 4470	3044862	05/11/12
	FM 4470	3041769	05/26/11
	FM 4470	3032811	12/11/08
	FM 4470	3044862	09/27/12
Atlantic & Caribbean Roof Consulting, LLC	TAS 114-J	06-035	10/18/06
Florida Testing Engineering & Consulting, LLC	TAS 114-J	GL0809-01JR	09/02/08
	TAS 114-J	GL0809-04JR	09/02/08
Exterior Research & Design, LLC	TAS 114-J	02843.02.05-06	02/02/05
PRI Construction Materials Technologies LLC	ASTM D1970	GAF-344-02-01	04/23/12
	ASTM D1970	GAF-275-02-01	11/11/10
	ASTM D4601	GAF-256-02-01	05/21/12
	ASTM D6878/ TAS 131	GAF 289-02-01	09/07/11
	ASTM D6878/ TAS 131	GAF 290-02-01	09/21/11

APPROVED ASSEMBLIES:

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: 22 gauge, steel deck secured to minimum ¼ in. thick steel structural supports spaced 6 ft. o.c. with ICH Traxx/5 fasteners 6 in. o.c. along the center of the supports. Deck side laps are secured 24 in. with ICH Traxx/1 fasteners.

System Type B: Membrane adhered to mechanically fastened 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.

Thermal Barrier: (Optional) Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, DensDeck® DuraGuard® Roof Board, ½" Securock® Gypsum-Fiber Roof Board or 3/4" EnergyGuard™ Perlite Roof Insulation loose laid on steel deck

Vapor Retarder: (Optional) Weather Watch® XT, UnderRoof™ 2 or UnderRoof™ HT is self-adhered to the thermal barrier (excluding EnergyGuard Perlite).

One or more layers of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation Minimum 2" thick	**2, 8, 9, 10**	**1.33 ft^2**

Note: The base layer of insulation is fastened through the optional vapor retarder and thermal barrier (when present) into the steel deck see base layer for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Securock® Gypsum-Fiber Roof Board Minimum 1/4" thick	**N/A**	**N/A**

Note: Securock® Gypsum-Fiber Roof Board to EnergyGuard™ Polyiso Insulation adhered with hot asphalt only. Securock® Gypsum-Fiber Roof Board to EnergyGuard™ RA Polyiso Insulation or EnergyGuard™ RN Polyiso Insulation adhered with LRF Adhesive M only. Securock® Gypsum-Fiber Roof Board to EnergyGuard™ RH Polyiso Insulation with hot asphalt, LRF Adhesive M, Olybond 500® or Olybond 500® Green. Please refer to Roofing application Standard RAS 117 for insulation attachment.

Membrane: EverGuard® TPO or EverGuard Extreme® TPO fully adhered in EverGuard® 1121 Bonding Adhesive at a total rate of 1.2 – 1.67 gal/sq. Half of the adhesive is applied to the substrate and the other half is applied to the back surface of the roof cover. The 3" side laps are sealed with a 1.5" wide heat weld for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The top surface is then broomed and is then rolled with a water filled roller weighing a minimum of 250 lbs.

Membrane:	OR
(Cont.)	Adhered in EverGuard® Low VOC TPO Bonding Adhesive applied at a rate of 0.91 gal/sq. Half of the adhesive is applied to the substrate and the other half is applied to the back surface of the roof cover. The 3" side laps are sealed with a 1.5" wide heat weld for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The top surface is then broomed and is then rolled with a water filled roller weighing a minimum of 250 lbs.
Surfacing:	(Optional) Apply any surfacing/coating option listed in Table 4.
Maximum Design Pressure:	-60 psf; (See General limitation #7)

Membrane Type: TPO

Deck Type 2I: Steel, insulated

Deck Description: 22 gauge, grade 80 steel attached 6" o.c. to steel supports spaced 6 ft. o.c. using Traxx/5 screws. Deck side laps are attached 30" o.c. using Traxx/1screws.

System Type C(1): Membrane adhered to mechanically fastened 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.

Thermal Barrier: (Optional) Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, DensDeck® DuraGuard® Roof Board, ½" Securock® Gypsum-Fiber Roof Board or 3/4" EnergyGuard™ Perlite Roof Insulation loose laid on steel deck.

Vapor Retarder: (Optional) Weather Watch® XT, UnderRoof™ 2 or UnderRoof™ HT is self-adhered to the thermal barrier (excluding EnergyGuard Perlite).

One or more layers of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation, Minimum 2" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Securock® Gypsum-Fiber Roof Board Minimum ¼" thick	**2, 8, 10**	**1:1.33 ft²**

Note: Base insulation is loose laid. Top layer of insulation is fastened through the base layer, the optional vapor retarder and thermal barrier into the steel deck see top insulation layer for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: EverGuard® TPO or EverGuard Extreme® TPO fully adhered in EverGuard® 1121 Bonding Adhesive at an application rate of 2.0 gal/sq. Per manufacturer's instructions half of the adhesive is applied to the substrate and the other half is applied to the back surface of the roof cover. The 3" wide side laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The top surface is then broomed and is rolled with a water filled roller weighing a minimum of 250 lbs.

Surfacing: (Optional) Apply any surfacing/coating option listed in Table 4.

Maximum Design Pressure: -105 psf; (See General limitation #7)

Membrane Type: TPO

Deck Type 2I: Steel, insulated

Deck Description: 22 gauge, grade 80 steel attached 6" o.c. to steel supports spaced 6 ft. o.c. using Traxx/5 screws. Deck side laps are attached 30" o.c. using Traxx/1 screws.

System Type C(2): Membrane adhered to mechanically fastened 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.

Thermal Barrier: (Optional) Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, DensDeck® DuraGuard® Roof Board, ½" Securock® Gypsum-Fiber Roof Board or 3/4" EnergyGuard™ Perlite Roof Insulation loose laid on steel deck.

Vapor Retarder: (Optional) Weather Watch® XT, UnderRoof™ 2 or UnderRoof™ HT is self-adhered to the thermal barrier (excluding EnergyGuard Perlite).

One or more layers of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation, Minimum 2" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Securock® Gypsum-Fiber Roof Board Minimum $^{5}/_{8}$" thick	**2, 8**	**1:1.6 ft²**

Note: Base insulation is loose laid. Top layer of insulation is fastened through the base layer, the optional vapor retarder and thermal barrier into the steel deck see top insulation layer for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: EverGuard® TPO or EverGuard Extreme® TPO fully adhered in EverGuard® 1121 Bonding Adhesive at an application rate of 2.0 gal/sq. Per manufacturer's instructions half of the adhesive is applied to the substrate and the other half is applied to the back surface of the roof cover. The 3" wide side laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The top surface is broomed and is rolled with a water filled roller weighing a minimum of 250 lbs.

Surfacing: (Optional) Apply any surfacing/coating option listed in Table 4.

Maximum Design Pressure: -82.5 psf; (See General limitation #7)

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: 22 gauge, thick steel deck is secured to 0.25 in. thick steel structural supports spaced, at 72 in. o.c. with Teks 5 fasteners spaced 6 in. o.c. The deck side laps fastened 24 in. o.c. with Stitch Teks 1 fasteners.

System Type C(3): Membrane adhered to mechanically fastened 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.

Thermal Barrier: (Optional) Minimum ¼" thick DensDeck® Roof Board, DensDeck® Prime Roof Board, DensDeck® DuraGuard Roof Board, Securock® Gypsum-Fiber Roof Board or 3/4" EnergyGuard™ Perlite Roof Insulation loose laid on steel deck.

Vapor Retarder: (Optional) Weather Watch® XT, UnderRoof™ 2 or UnderRoof™ HT is self-adhered to the thermal barrier (excluding EnergyGuard Perlite).

One or more layers of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ RH PolyIso Insulation, EnergyGuard™ RN Polyiso Insulation		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Securock® Gypsum-Fiber Roof Board		
Minimum 1/4" thick	**1, 9**	**1:1.6 ft²**

Note: Base insulation is loose laid. Top layer of insulation is fastened through the base layer, the optional vapor retarder and thermal barrier into the steel deck see top insulation layer for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: EverGuard® TPO or EverGuard Extreme® TPO fully adhered in EverGuard® 1121 Bonding Adhesive applied at a total rate of 1.2 – 1.67 gal/sq. Half of the adhesive is applied to the substrate and the other half is applied to the back surface of the roof cover. The 3" side laps are sealed with a 1.5" wide heat weld for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The top surface is then broomed and is then rolled with a water filled roller weighing a minimum of 250 lbs.

OR

Adhered in EverGuard® Low VOC TPO Bonding Adhesive applied at a rate of 0.91 gal/sq. Half of the adhesive is applied to the substrate and the other half is applied to the back surface of the roof cover. The 3" side laps are sealed with a 1.5" wide heat weld for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The top surface is then broomed and is then rolled with a water filled roller weighing a minimum of 250 lbs.

Membrane:	OR
(Cont.)	EverGuard® TPO or EverGuard Extreme® TPO fully adhered in EverGuard® WB 181 Bonding Adhesive applied at a total rate of 0.84 gal./sq. One quarter of the adhesive is applied to the back of the roof cover and three quarter of the adhesive is applied to the substrate. Per manufacturer's instructions. The side laps are heat welded with a 1.5" wide heat weld for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The top surface is then broomed and is then rolled with a water filled roller weighing a minimum of 250 lbs.
Surfacing:	(Optional) Apply any surfacing/coating option listed in Table 4.
Maximum Design Pressure:	-52.5 psf; (See General limitation #7)

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: 22 gauge, type B wide rib steel deck is secured to minimum 0.25 in. thick steel structural supports spaced, at maximum, 72 in. o.c. with Teks 5 fasteners spaced 6 in. o.c. at each bearing. The deck side laps are fastened 24 in. o.c. with Stitch Teks 1 fasteners.

System Type C(4): Membrane adhered to mechanically fastened 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.

Thermal Barrier: (Optional) Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, DensDeck® DuraGuard® Roof Board, ½" Securock® Gypsum-Fiber Roof Board or 3/4" EnergyGuard™ Perlite Roof Insulation loose laid on steel deck.

Vapor Retarder: (Optional) Weather Watch® XT, UnderRoof™ 2 or UnderRoof™ HT is self-adhered to the thermal barrier (excluding EnergyGuard Perlite).

One or more layers of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Structodek® High Density Fiber Board Roof Insulation		
Minimum 1/2" thick	**1, 8, 9, 10,13**	**1:1 ft²**

Note: Base insulation is loose laid. Top layer of insulation is fastened through the base layer, the optional vapor retarder and thermal barrier into the steel deck at a minimum see top insulation layer for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: EverGuard® TPO or EverGuard Extreme® TPO fully adhered in EverGuard® 1121 Bonding Adhesive applied at a total rate of 1.67 gal/sq. Half of the adhesive is applied to the substrate and the other half is applied to the back surface of the roof cover. The 3" side laps are sealed with a 1.5" wide heat weld for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The top surface is then broomed and is then rolled with a water filled roller weighing a minimum of 250 lbs.

Surfacing: (Optional) Apply any surfacing/coating option listed in Table 4.

Maximum Design Pressure: -67.5 psf; (See General limitation #7)

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: 22 gauge, type B, wide rib steel deck, Grade 33 is secured to minimum 0.25 in. thick steel structural supports spaced, at maximum, 72 in. on center with ICH TRAXX/5, ICH TRAXX/4, Teks 4 or Teks 5 fasteners. The deck is fastened to the structural steel supports with fasteners applied 6.0 on center. The deck side laps are fastened 24.0 on center with ICH TAXX/1 or Stitch Teks 1 fasteners.

System Type C(5): Membrane adhered to mechanically fastened cover board.

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.

Thermal Barrier: Min. 5/8" thick DensDeck® DuraGuard® Roof Board, DensDeck® Prime® Roof Board, or min .5 in Securock® Gypsum-Fiber Roof Board loose laid

Vapor Retarder: Weather Watch® XT, UnderRoof™ 2, UnderRoof™ HT installed over the thermal barrier.

One or more layers of the following insulations (max 12 inches).

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation, Minimum 1.5" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Securock® Gypsum-Fiber Roof Board Minimum 1/4" thick	**1, 2, 8, 9, 11**	**1: 1.6 ft²**

Note: Note: Base insulation is loose laid. Top layer of insulation is fastened through the base layer; the optional vapor retarder and thermal barrier into the steel deck see top layer insulation for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: EverGuard® TPO or EverGuard Extreme® TPO fully adhered in EverGuard® WB 181 Bonding Adhesive applied at a total rate of 0.84 gal./sq. One quarter of the adhesive is applied to the back of the roof cover and three quarter of the adhesive is applied to the substrate. Per manufacturer's instructions. The laps are heat welded with a 1.5" wide heat weld for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The top surface is then broomed and is then rolled with a water filled roller weighing a minimum of 250 lbs.

Membrane:	OR
(Cont.)	EverGuard® TPO or EverGuard Extreme® TPO fully adhered in EverGuard® #1121 Bonding Adhesive applied at a total rate of 1.2 – 1.67 gal/sq. one half of the adhesive is applied to the back of the roof cover and one half of the adhesive is applied to the substrate. Per manufacturer's instructions. The laps are heat welded a 1.5" wide for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The top surface is then broomed and is then rolled with a water filled roller weighing a minimum of 250 lbs. OR Adhered in EverGuard® Low VOC TPO Bonding Adhesive applied at a rate of 0.91 gal/sq. Half of the adhesive is applied to the substrate and the other half is applied to the back surface of the roof cover. Per manufacturer's instructions. The laps are heat welded a 1.5" wide for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The top surface is then broomed and is then rolled with a water filled roller weighing a minimum of 250 lbs.
Surfacing:	(Optional) Apply any surfacing/coating option listed in Table 4.
Maximum Design Pressure:	-52.5 psf; (See General limitation #9)

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: 22 gauge, type B, wide rib steel deck, Grade 33 is secured to minimum 0.25 in. thick steel structural supports spaced, at maximum, 72 in. on center with ICH TRAXX/5, ICH TRAXX/4, Teks 4 or Teks 5 fasteners. The deck is fastened to the structural steel supports with fasteners applied 6.0 on center. The deck side laps are fastened 24.0 on center with ICH TAXX/1 or Stitch Teks 1 fasteners.

System Type C(6): Membrane adhered to mechanically fastened cover board.

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.

Thermal Barrier: Min. 5/8" thick DensDeck® DuraGuard® Roof Board, DensDeck® Prime® Roof Board, or min .5 in Securock® Gypsum-Fiber Roof Board loose laid.

Vapor Retarder: Weather Watch® XT, UnderRoof™ 2, UnderRoof™ HT installed over the thermal barrier.

One or more layers of the following insulations (max 12 inches).

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation, Minimum 1.5" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Securock® Gypsum-Fiber Roof Board Minimum 1/4" thick	**1, 2, 8, 9, 11**	**1: 1.45 ft²**

Note: Note: Base insulation is loose laid. Top layer of insulation is fastened through the base layer, the optional vapor retarder and thermal barrier into the steel deck; see top layer insulation for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: EverGuard® TPO or EverGuard Extreme® TPO fully adhered in EverGuard® WB 181 Bonding Adhesive applied at a total rate of 0.84 gal./sq. One quarter of the adhesive is applied to the back of the roof cover and three quarter of the adhesive is applied to the substrate. Per manufacturer's instructions. Per manufacturer's instructions. The laps are heat welded a 1.5" wide for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The top surface is then broomed and is then rolled with a water filled roller weighing a minimum of 250 lbs.

Membrane:	OR
(Cont.)	EverGuard® TPO or EverGuard Extreme® TPO fully adhered in EverGuard® #1121 Bonding Adhesive applied at a total rate of 1.67 gal/sq. one half of the adhesive is applied to the back of the roof cover and one half of the adhesive is applied to the substrate. Per manufacturer's instructions. Per manufacturer's instructions. The laps are heat welded a 1.5" wide for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The top surface is then broomed and is then rolled with a water filled roller weighing a minimum of 250 lbs. OR Adhered in EverGuard® Low VOC TPO Bonding Adhesive applied at a rate of 0.91 gal/sq. Half of the adhesive is applied to the substrate and the other half is applied to the back surface of the roof cover. Per manufacturer's instructions. The laps are heat welded a 1.5" wide for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The top surface is then broomed and is then rolled with a water filled roller weighing a minimum of 250 lbs.
Surfacing:	(Optional) Apply any surfacing/coating option listed in Table 4.
Maximum Design Pressure:	-52.5 psf; (See General limitation #9)

Membrane Type: TPO

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 Buildex Traxx/1 fasteners spaced at maximum 30" o.c.

System Type D(1): Membrane mechanically attached over preliminary fastened 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.

Thermal Barrier: (Optional) Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, DensDeck® DuraGuard® Roof Board, ½" Securock® Gypsum-Fiber Roof Board or 3/4" EnergyGuard™ Perlite Roof Insulation loose laid on steel deck.

Vapor Retarder: (Optional) Weather Watch® XT, UnderRoof™ 2 or UnderRoof™ HT is self-adhered to the thermal barrier (excluding EnergyGuard Perlite).

One or more layers of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation Minimum 1" thick	**N/A**	**N/A**

Note: Insulation layer shall be preliminary attached through the optional vapor retarder and thermal barrier into the steel deck at a minimum application rate of 1 fastener every 2.0 ft^2. If the optional vapor retarder and thermal barrier are not present then 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.

Membrane: EverGuard® TPO Membrane or EverGuard Extreme® TPO attached through the preliminary attached insulation as specified below.

Fastening #1: Membrane is mechanically attached using Drill-Tec™ XHD Fasteners and Drill-Tec™ 2-3/8" Double Barbed XHD 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 for automatic machine welding. Weld width shall be a minimum 2" width for hand welding.
(Maximum Design Pressure –45 psf; See General Limitation #7)

Fastening #2: Membrane is mechanically attached using Drill-Tec™ XHD Fasteners and Drill-Tec™ 2" Double Barbed XHD 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)

Surfacing: (Optional) Apply any surfacing/coating option listed in Table 4.

Maximum Design Pressure: See Fastening Options Above

Membrane Type: TPO

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 are secured with ITW Buildex 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. 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.

Thermal Barrier: (Optional) Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, DensDeck® DuraGuard® Roof Board, ½" Securock® Gypsum-Fiber Roof Board or 3/4" EnergyGuard™ Perlite Roof Insulation loose laid on steel deck.

Vapor Retarder: (Optional) Weather Watch® XT, UnderRoof™ 2 or UnderRoof™ HT is self-adhered to the thermal barrier (excluding EnergyGuard Perlite).

One or more layers of the following insulations.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation Minimum 1.5" thick	**N/A**	**N/A**

Note: Insulation layer shall be preliminary attached through the optional vapor retarder and thermal barrier into the steel deck at a minimum application rate of 1 fastener every 2.0 ft^2. If the optional vapor retarder and thermal barrier are not present then 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.

Membrane: EverGuard® TPO or EverGuard Extreme® TPO Membrane attached through the preliminary attached insulation as specified below.

Fastening #1: Membrane is mechanically attached using Drill-Tec™ SXHD fasteners and Drill-Tec™ 2-3/4" Double 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 for automatic machine welding. Weld width shall be a minimum 2" width for hand welding.
(Maximum Design Pressure –45 psf; See General Limitation #7)

Fastening #2: Membrane is mechanically attached using Drill-Tec™ XHD fasteners and Drill-Tec™ 2-3/8" Barbed 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. Weld width shall be a minimum 2" width for hand welding.
(Maximum Design Pressure –52.5 psf; See General Limitation #7)

Fastening #3: Membrane is mechanically attached using Drill-Tec™ XHD Fasteners and Drill-Tec™ 2-3/8" Barbed XHD 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. Weld width shall be a minimum 2" width for hand welding.
(Maximum Design Pressure –52.5 psf; See General Limitation #7)

Fastening #4: 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 for automatic machine welding. Weld width shall be a minimum 2" width for hand welding.
(Maximum Design Pressure –52.5 psf; See General Limitation #7)

Fastening #5: Membrane is mechanically attached using Drill-Tec™ XHD Fasteners and Drill-Tec™ 2-3/4" 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 for automatic machine welding. Weld width shall be a minimum 2" width for hand welding.
(Maximum Design Pressure –60 psf; See General Limitation #7)

Fastening #6: Membrane is mechanically attached using Drill-Tec™ XHD Fasteners and Drill-Tec™ 2" Double Barbed XHD 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. Weld width shall be a minimum 2" width for hand welding.
(Maximum Design Pressure –60 psf; See General Limitation #7)

Surfacing: (Optional) Apply any surfacing/coating option listed in Table 4.

Maximum Design Pressure: See Fastening Options Above

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga. 1.5" type B galvanized metal decking welded to the 7' o.c. steel supports with 5/8" puddle welds spaced 6" at the perimeter of testing frame and one at every flute. The side laps are fastened with self-drilling #12 screws spaced 12" o.c.

System Type D(3): Membrane mechanically attached over preliminary fastened 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.

Thermal Barrier: (Optional) Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, DensDeck® DuraGuard® Roof Board, ½" Securock® Gypsum-Fiber Roof Board or 3/4" EnergyGuard™ Perlite Roof Insulation loose laid on steel deck.

Vapor Retarder: (Optional) Weather Watch® XT, UnderRoof™ 2 or UnderRoof™ HT is self-adhered to the thermal barrier (excluding EnergyGuard Perlite).

One or more layers of any of the following insulation.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation Minimum 1.5" thick	**N/A**	**N/A**

Note: Insulation layer shall be preliminary attached through the optional vapor retarder and thermal barrier into the steel deck at a minimum application rate of 1 fastener every 2.0 ft^2. If the optional vapor retarder and thermal barrier are not present then insulation is preliminary fastened to the steel deck with 5 Drill-Tec™ #14 Fasteners and 3" Drill-Tec™ Insulation Plates per 4' x 4' board of insulation prior to the installation of the membrane,. All layers of insulation and membrane shall be simultaneously fastened. See membrane below for fasteners and density.

Membrane: EverGuard® TPO or EverGuard Extreme® TPO – 120" wide. Membrane attached through the preliminary attached insulation as specified below.

Fastening : Membrane is mechanically attached using Drill-Tec™ XHD Fasteners and Drill-Tec™ 2" Double Barbed XHD Plates spaced 6" o.c. at the 6" overlap and sealed with a minimum 1.5" wide heat weld for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. .

Surfacing: (Optional) Apply any surfacing/coating option listed in Table 4.

Maximum Design Pressure: -90 psf (See General Limitation # 7)

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: 22 gauge 33 ksi-C deck attached to steel supports spaced 6 ft. o.c. with 5/8" puddle welds at 6"o.c. and #12 TEK screws at 6" o.c. on the side laps.

System Type D(4): Membrane mechanically fastened to deck through preliminary attached 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.

Thermal Barrier: (Optional) Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, DensDeck® DuraGuard® Roof Board, ½" Securock® Gypsum-Fiber Roof Board or 3/4" EnergyGuard™ Perlite Roof Insulation loose laid on steel deck.

Vapor Retarder: (Optional) Weather Watch® XT, UnderRoof™ 2 or UnderRoof™ HT is self-adhered to the thermal barrier (excluding EnergyGuard Perlite).

One or more layers of any of the following insulation.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation Minimum 1.5" thick	**1, 9**	**Preliminary attachment 4 fasteners per board**

Note: Insulation layer is preliminary attachment through the optional vapor retarder and thermal barrier into the steel deck at a minimum application rate of 1 fastener every 2.0 ft^2. If the optional vapor barrier is not present then fasten at a minimum application rate of four 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.

Membrane: EverGuard® TPO or EverGuard Extreme® TPO attached through the preliminary attached insulation as specified below.

Fastening #1: Membrane 96" wide is mechanically attached using Drill-Tec™ XHD Fasteners and Drill-Tec™ 2" Double Barbed XHD Plates spaced 12" o.c. on the 1.5" welded laps weld for automatic machine welding. Weld width shall be a minimum 2" width for hand welding.
(Maximum Design Pressure -52.5 psf; See General limitation #7)

Fastening #2: Membrane 96" wide is mechanically attached using Drill-Tec™ XHD Fasteners and Drill-Tec™ 2" Double Barbed XHD Plates spaced 6" o.c. on the 1.5" welded laps weld for automatic machine welding. Weld width shall be a minimum 2" width for hand welding.
(Maximum Design Pressure -120 psf; See General limitation #7)

Surfacing: (Optional) Apply any surfacing/coating option listed in Table 4.

Maximum Design Pressure: See Fastening Options Above

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: 22 gauge, wide rib steel deck, Grade 33 secured to supports spaced 6 ft. o.c. with ITW Buildex Corp Teks 5 screws with 0.75 in washers spaced at 6 in. o.c. and with side laps secured with ITW Buildex Corp Traxx/1 screws spaced at 12 in.

System Type D(5): Insulation is loosed laid with preliminary attachment and the membrane is mechanically fastened through the insulation to the roof 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.

Thermal Barrier: (Optional) Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, DensDeck® DuraGuard® Roof Board, ½" Securock® Gypsum-Fiber Roof Board or 3/4" EnergyGuard™ Perlite Roof Insulation loose laid on steel deck.

Vapor Retarder: (Optional) Weather Watch® XT, UnderRoof™ 2 or UnderRoof™ HT is self-adhered to the thermal barrier (excluding EnergyGuard Perlite).

One or more layers each of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation Minimum 1.5" thick		

Note: Insulation layer is loose laid. Insulation is loose laid. If the optional vapor barrier is not present then attach the insulation through the barrier and into the steel deck at a minimum application rate of 1 fastener every 2.0 ft^2 using FM approved fasteners and plates. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: EverGuard® TPO or EverGuard Extreme® TPO. Mechanically attached to deck with Drill-Tec™ XHD Fastener and Drill-Tec™ RhinoBond TPO XHD Plates 6 in. o.c. in rows spaced 72 in. o.c. fastened into the steel deck. The membrane is bonded to the plates in the field of the roof cover using the RhinoBond tool. Minimum 2 in. laps heat welded with minimum 1.5 in. wide heat weld placed on the outside edge of the lap.

Surfacing: (Optional) Apply any surfacing/coating option listed in Table 4.

Maximum Design Pressure: -67.5 psf; (See General limitation #7)

Membrane Type: TPO

Deck Type 2: Steel, Insulated

Deck Description: 22 gauge, wide rib steel deck, Grade 80 secured to supports spaced 6 ft. o.c. with two ITW Buildex Corp Teks 5 screws with 0.75 in washers spaced at 6 in. o.c. and with side laps secured with ITW Buildex Corp Traxx/1 screws spaced at 12 in.

System Type D(6): Insulation is loosed laid with preliminary attachment and the membrane is mechanically fastened.

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.

Thermal Barrier: (Optional) Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, DensDeck® DuraGuard® Roof Board, ½" Securock® Gypsum-Fiber Roof Board or 3/4" EnergyGuard™ Perlite Roof Insulation loose laid on steel deck.

Vapor Retarder: (Optional) Weather Watch® XT, UnderRoof™ 2 or UnderRoof™ HT is self-adhered to the thermal barrier (excluding EnergyGuard Perlite).

One or more layers each of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation Minimum 1.5" thick		

Note: Insulation layer is preliminary attachment through the optional vapor retarder and thermal barrier into the steel deck at a minimum application rate of 1 fastener every 2.0 ft^2. If the optional vapor retarder is not present then fasten at a minimum application rate of four 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.

Membrane: EverGuard® TPO or EverGuard Extreme® TPO. Mechanically attached to deck with Drill-Tec™ XHD Fastener and Drill-Tec™ RhinoBond TPO XHD Plates 6 in. o.c. in rows spaced 72 in. o.c. fastened into the steel deck. The membrane is bonded to the plates in the field of the roof cover using the RhinoBond tool. Minimum 2 in. laps heat welded with minimum 1.5 in. wide heat weld placed on the outside edge of the lap.

Surfacing: (Optional) Apply any surfacing/coating option listed in Table 4.

Maximum Design Pressure: -97.5 psf; (See General limitation #7)

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 equivalent or enhanced 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 and/or RAS 137, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered 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 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 9N-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE