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)

Flex Membrane International, Corp
5103A Pottsville Pike
Reading, PA 19605

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: Flex 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. 21-0810.02 and consists of pages 1 through 68.
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:	-105 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
Flex TPO II	Various	ASTM D6878 TAS 131	Thermoplastic olefin reinforced single-ply membrane.
Flex TPO II FB	Various	ASTM D6878 TAS 131	Thermoplastic olefin reinforced, fleece back single-ply membrane
Flex EG TPO Cut Edge Sealant	1 quart squeeze tube	Proprietary	Clear solvent based sealant for TPO cut edges.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
Flex EG Polyiso	Polyisocyanurate foam insulation	Flex Membrane International, Corp.
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	Glass-faced polyisocyanurate foam insulation.	GAF
Tapered Flex EG Polyiso	Polyisocyanurate foam insulation	Flex Membrane International, Corp.
EnergyGuard™ Ultra Tapered Polyiso Insulation	Polyisocyanurate foam insulation	GAF
ACFoam-I	Polyisocyanurate foam insulation	Atlas Roofing Corporation
Tapered ACFoam	Polyisocyanurate foam insulation	Atlas Roofing Corporation
H-Shield	Polyisocyanurate foam insulation	Hunter Panels, LLC
Tapered H-Shield	Polyisocyanurate foam insulation	Hunter Panels, LLC
H-Shield HD	High density polyisocyanurate foam insulation	Hunter Panels, LLC
ENRGY	Polyisocyanurate foam insulation	Johns Manville Corp.
Tapered ENRGY 3	Polyisocyanurate foam insulation	Johns Manville Corp.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
FescoBoard	Perlite insulation board	Johns Manville Corp.
Retro-Fit Board	Perlite recover board	Johns Manville Corp.
SECUROCK® Gypsum-Fiber Roof Board	Gypsum board	USG Corporation
SECUROCK® Glass-Mat Roof Board	Glass faced gypsum board	USG Corporation
Structodek® High Density Fiber Board Roof Insulation	High Density Fiber Board	Blue Ridge FiberBoard, Inc.
DensDeck® Roof Board DensDeck® Prime® Roof Board	Gypsum board	Georgia-Pacific Gypsum LLC

APPROVED FASTENERS/ADHESIVES:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	#12 Standard Roofgrip	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	OMG, Inc.
2.	#14 Roofgrip	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.	OMG, Inc.
3.	#15 Roofrgip	Truss head, self-drilling, pinch point, high thread fastener for use in wood or steel decks.	#15 x 16" max. length, #3 Phillips head	OMG, Inc.
4.	OMG Super XHD	Truss head, self-drilling, drill point, high thread fastener for use in steel decks.	#21 x 16" max. length, #3 Phillips head	OMG, Inc.
5.	OMG 2-3/8” Barbed XHD Plate	Round galvanized steel stress plates for use with OMG fasteners.	2-3/8" round	OMG, Inc.
6.	Polymer GypTec Plate 2” with barbs	Round galvanized steel stress plates for use with OMG fasteners.	2" round	OMG, Inc.
7.	OMG 2-3/4” Super XHD Barbed Plate	Round galvanized steel stress plates for use with OMG fasteners.	2-3/4" round	OMG, Inc.

APPROVED FASTENERS/ADHESIVES:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
8.	3 in. Round Metal Plate	Galvalume® coated steel stress plate for use with approved OMG fasteners.	3" round	OMG, Inc.
9.	AccuTrac Flat Bottom	A2-SS aluminized steel plate for use with OMG fasteners.	3" square; .017" thick	OMG, Inc.
10.	3 in. Ribbed Galvalume Plate	Round Galvalume® steel stress plate with reinforcing ribs and recessed for use with OMG fasteners.	3" round	OMG, Inc.
11.	3 in. Ribbed Galvalume Plate (Flat)	Round Galvalume® plated steel stress plate with reinforcing ribs for use with OMG fasteners.	3" Round	OMG, Inc.
12.	ASAP Roofgrip Pre-Assembled System	#12 Standard Roofgrip with3 in. Round Metal Plate.	See components	OMG, Inc.
13.	RhinoBond Insulation Plate (for TPO)	Gold primer coated plate for use with TPO membranes.	3" round	OMG, Inc.
14.	AccuTrac Plate	Galvalume® steel plate with recess for use with OMG fasteners.	3" square; .017" thick	OMG, Inc.
15.	RhinoBond TreadSafe Plate (for TPO)	Round, coated Galvalume® plate (Gold primer coating) used for TPO membranes.	3" Round	OMG, Inc.
16.	RhinoBond SXHD Plate (for TPO)	Gold primer coated plate for use with TPO membranes.	3" Round	OMG, Inc.
17.	OMG Eyehook Accuseam Plate	Round Galvalume® steel plate for use with OMG fasteners.	2-3/8" Round	OMG, Inc.
18.	Pliobond 2835	Solvent based adhesive for fully adhered TPO systems and membrane flashing.	5 gallons	Ashland, Inc.
19.	Flex EG WB 181 TPO Bonding Adhesive	A water based adhesive for use with smooth TPO, fleece backed TPO and fleece backed PVC membranes.	5 gallons	Flex Membrane International, Corp.
20.	LA505 Bonding Adhesive TPO Membrane	Low VOC adhesive for TPO fully adhered systems and flashings.	5 gallons	ITW TACC, a Division of Illinois Tool Works Inc.

APPROVED FASTENERS/ADHESIVES:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
21.	Millennium PG-1 Low Viscosity Insulation Adhesive, Millennium PG-1 Pump Grade Adhesive, Millennium PG-1 Fleeceback Membrane Adhesive	Two-part VOC free polyurethane foam adhesive.	Dual component cylinders	H.B. Fuller Company
22.	OMG OlyBond 500	Spray polyurethane foam insulation adhesive	10 gal. bag-in-box set and 1.5 liters SpotShot cartridge	OMG, Inc.
23.	OMG OlyBond 500 Green Adhesive	Spray polyurethane foam insulation adhesive	10 gal. bag-in-box set and 1.5 liters SpotShot cartridge	OMG, Inc.

EVIDENCE SUBMITTED:

Test Agency/Identifier	Name	Report	Date
UL LLC	R10689	UL 790	04/30/21
	R1306	UL 790	07/25/23
FM Approvals	FM 4470	3003617	12/20/99
	FM 4470	3012721	02/11/04
	FM 4470	3013861	05/21/04
	FM 4470	3014955	01/28/05
	FM 4470	3015029	02/19/04
	FM 4470	3015578	05/12/04
	FM 4470	3019881	03/30/04
	FM 4470	3020681	09/01/05
	FM 4470	3022136	03/17/05
	FM 4470	3023458	07/18/06
	FM 4470	3026964	07/25/07
	FM 4470	3029832	05/11/07
	FM 4470	3030813	11/05/07
	FM 4470	3032811	12/11/08
	FM 4470	3032856	11/24/08
	FM 4470	3033126	07/11/08
	FM 4470	3033135	11/24/08
	FM 4470	3034394	02/27/09
	FM 4470	3034749	10/16/08
	FM 4470	3035658	09/16/09
	FM 4470	3036141	08/10/09
	FM 4470	3036614	06/09/09
	FM 4470	3038278	11/18/11
	FM 4470	3038318	12/10/10
	FM 4470	3040234	02/23/11
	FM 4470	3041535	06/08/11
	FM 4470	3041685	03/24/11
	FM 4470	3041769	09/27/12
	FM 4470	3042905	01/10/12
	FM 4470	3044862	05/11/12
	FM 4470	3045166	07/24/12
	FM 4470	3045863	08/16/12
	FM 4470	3046054	12/21/12
	FM 4470	3046081	02/13/13
	FM 4470	3046328	09/13/12
	FM 4470	3047636	08/08/13
	FM 4470	3048122	04/29/13
	FM 4470	3055411	04/14/15
	FM 4470	3048066	12/13/13
	FM 4470	3051973	08/06/14
	FM 4470	3054498	11/30/15
	FM 4470	797-07885-267	11/21/12
	FM 4470	797-10210-267	02/05/15
	FM 4470	797-10211-267	02/05/15

FM Approvals	FM 4470	797-10212-267	02/05/15
	FM 4470	RR205159	05/05/16
	FM 4470	RR214070	05/04/18
	FM 4470	RR214074	06/14/18
	FM 4470	RR214073	06/14/18
Exterior Research & Design, LLC	TAS 114	02843.02.05-06	02/02/05
PRI Construction Materials Technologies LLC	ASTM C1289	GAF-417-02-01	05/28/13
	ASTM C1289	GAF-411-02-01	05/02/13
	ASTM C1289	GAF-412-02-01	05/02/13
	ASTM D6878/TAS 131	GAF-421-02-01	10/22/13
	ASTM D6878/TAS 131	GAF-422-02-01	10/29/13
	ASTM D6878/TAS 131	GAF-424-02-01	11/11/13
	ASTM D6878/TAS 131	GAF-425-02-01	11/11/13
	ASTM D1622	GAF-369-02-01	10/22/12
	TAS 117	GAF-435-02-01	01/29/14
	TAS 114	GAF-435-02-07	01/29/14
	TAS 114	GAF-435-02-08	01/29/14
	TAS 114	GAF-435-02-09	01/29/14
	TAS 114	GAF-435-02-10	01/29/14
	TAS 114	GAF-435-02-11	01/29/14
	TAS 114	GAF-462-02-02	11/18/13
	ASTM C1289	GAF-464-02-01	02/06/14
	ASTM D6083	GAF-499-02-01	03/12/14
	TAS 114	GAF-506-02-08	03/06/14
	TAS 114	GAF-506-02-10	03/06/14
	TAS 114	GAF-506-02-12	04/14/14
	TAS 114	GAF-506-02-13	04/14/14
	TAS 114	GAF-506-02-14	04/14/14
	Proprietary	GAF-508-02-01	03/12/14
	TAS 114	GAF-510-02-02	04/08/14
	TAS 114	GAF-510-02-04	04/08/14
	TAS 114	GAF-511-02-02	04/08/14
	TAS 114	GAF-525-02-02	06/23/14
	TAS 114	GAF-525-02-03	06/23/14
	TAS 114	GAF-532-02-01	08/22/14
	TAS 114	GAF-835-02-02	02/21/18
	TAS 114	GAF-835-02-03	03/08/18
	TAS 114	GAF-835-02-04	03/08/18
	TAS 114	GAF-858-02-01	05/07/18
	TAS 114	GAF-858-02-02	05/07/18
	TAS 114	GAF-858-02-03	05/07/18
	TAS 114	GAF-858-02-04	05/07/18
	TAS 114	GAF-858-02-05	05/07/18
	TAS 114	GAF-858-02-06	05/07/18

DECK STRESS ANALYSIS CALCULATIONS/REPORTS

Engineer/Agency	Identifier	Assemblies	Date
FM Approval Deck Limitations	N/A	B(1), C(3), C(4), C(5), C(7), C(8), C(9), C(16), C(17), C(18), C(19), D(1), D(2), D(3), D(4), D(5), D(7), D(11)	01/01/13
Duc Thanh Nguyen, P.E.	Signed/Sealed Calculations	C(10), C(12), C(13), C(14), C(20) C(22), D(6), D(9), D(12)	12/02/15
Duc Thanh Nguyen, P.E.	Report	D(14)	02/21/18
Duc Thanh Nguyen, P.E.	Reports	D(13)#1 & #2	03/08/18
Duc Thanh Nguyen, P.E.	Signed/Sealed Calculations	C(11), C(15), D(8), D(10)	04/20/18
Duc Thanh Nguyen, P.E.	Reports	C(21), D(13)#1 & #2, D(15), D(16)	05/07/18
Robert Nieminen, P.E.	Signed/Sealed Calculations	C(1), C(2)	04/09/18

APPROVED ASSEMBLIES:

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 gauge, Grade 33, Type B-WR steel deck secured to minimum ¼ in. thick steel structural supports spaced 6 ft. o.c. with ICH Traxx/5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners 6 in. o.c. along the center of the supports. Deck side laps are secured 24 in. o.c. with ICH Traxx/1 or Hilti S-SLC 01 M HWH fasteners.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type B(1): One or more layers of insulation mechanically secured to roof deck. The top layer of insulation is adhered. The membrane is subsequently fully adhered to the 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.

Thermal Barrier: (Optional) Minimum 5/8" DensDeck® Roof Board, DensDeck® Prime® Roof Board, minimum 1/2" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or minimum 3/4" FescoBoard loose laid on steel deck.

One or more layers of the following insulations.

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 2" thick	**1, 2, 8, 9, 10, 11, 12, 14**	**1.33 ft²**

Note: The base layer of insulation is fastened through the optional thermal barrier (when present) into the steel deck with fasteners and density described. 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/ft²
SECUROCK® Gypsum-Fiber Roof Board		
Minimum 1/4" thick	**N/A**	**N/A**

Note (Millennium PG-1 Low Viscosity Insulation Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium PG-1 Fleeceback Membrane Adhesive is NOT for use with H-Shield base layer): Top insulation layer is adhered with OMG OlyBond® 500, OMG OlyBond® 500 Green Adhesive, Millennium PG-1 Low Viscosity Insulation Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium PG-1 Fleeceback Membrane Adhesive applied in 0.75"-1" wide ribbons spaced 12" o.c. Insulation panels listed as base layer only shall be used only as base layers with a layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Flex TPO II adhered with Pliobond 2835 adhesive at a total rate of 1.67 gal./sq. per manufacturer's installation 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 top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
OR
Flex TPO II fully adhered with LA505 Bonding Adhesive TPO Membrane applied at a total rate of 0.91 gal./sq. per manufacturer's installation 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 top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
OR
Flex TPO II fully adhered with Flex EG WB 181 Bonding Adhesive applied at a total rate of 0.83 gal./sq. per manufacturer's installation instructions. One quarter of the adhesive is applied to the back of the roof cover and three quarters is applied to the substrate. The top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
OR
Flex TPO II FB fully adhered with Flex EG WB 181 Bonding Adhesive applied at a total rate of 0.83 – 1.0 gal./sq. per manufacturer's installation instructions. All of the adhesive is applied to the substrate and the membrane is installed into the wet adhesive as soon as practical (do not allow adhesive to string or dry). The top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
OR
Flex TPO II FB fully adhered with Millennium PG-1 Low Viscosity Insulation Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium PG-1 Fleeceback Membrane Adhesive applied in 0.75 - 1.0 in. wide ribbons spaced 4 in. o.c. for full coverage per manufacturer's installation instructions. The top surface of the membrane is rolled per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

Maximum Design Pressure: -60 psf. (See General limitation #7)

Membrane Type: TPO

Deck Type 2I: Steel, insulated

Deck Description: Min. 22 gauge steel deck.

System Type B(2): One or more layers of insulation mechanically secured to roof deck. The top layer of insulation is adhered. The membrane is subsequently fully adhered to the 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.

Thermal Barrier: (Optional) Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of the following insulations.

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Flex EG Polyiso, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation Minimum 1.5" thick	**1, 2, 9, 10, 11, 12, 14**	**1: 2 ft^2**
Flex EG Polyiso, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation Minimum 2” thick	**1, 2, 9, 10, 11, 12, 14**	**1: 2.9 ft^2**

Note: Base layer of insulation is fastened through the optional thermal barrier (when present) into the steel deck using the fasteners and density listed above. Insulation panels listed are 48 x 96 in.; 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.

Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Flex EG Polyiso, Tapered Flex EG Polyiso, H-Shield, Tapered H-Shield, ENRGY 3, Tapered ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation, EnergyGuard™ Ultra Tapered Polyiso Insulation Minimum 0.5" thick	**N/A**	**N/A**

Note: Optional middle insulation layer is adhered with OMG Olybond 500®, OMG Olybond 500® Green Adhesive or Millennium PG-1 Low Viscosity Insulation Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium PG-1 Fleeceback Membrane Adhesive in 0.75 in. ribbons spaced in 12 in. o.c. The base layer or top layer of insulation of multi-layer constructions may be either tapered or flat profiled. Intermediate layers of insulation are flat profiled. Total insulation may not exceed 12 inches.

Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck® Prime® Roof Board or SECUROCK® Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

Note: Optional top insulation layer is adhered with OMG Olybond 500®, OMG Olybond 500® Green Adhesive or Millennium PG-1 Low Viscosity Insulation Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium PG-1 Fleeceback Membrane Adhesive applied in 0.75 – 1.0 in. wide ribbons spaced in 12 in. o.c.

Membrane: (Continued) Flex TPO II FB adhered in Millennium PG-1 Low Viscosity Insulation Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium PG-1 Fleeceback Membrane Adhesive applied in 0.75 - 1.0 in. wide ribbons spaced 4 in. o.c. for full coverage. The top surface of the membrane is rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1-1/2" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

Maximum Design Pressure: -45 psf. (See General limitation #9)

Membrane Type: TPO

Deck Type 2I: Steel, insulated

Deck Description: Min. 22 gauge, Grade 80, Type B steel deck 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.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

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.

Thermal Barrier: (Optional) Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of the following insulations.

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3 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, 11**	**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 (when present) 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: Flex TPO II is fully adhered in Pliobond 2835 adhesive applied at a total rate of 2.0 gal./sq. per manufacturer's installation 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 top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1-1/2" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

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

Membrane Type: TPO

Deck Type 2I: Steel, insulated

Deck Description: Min. 22 gauge, grade 80, Type B steel deck 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.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(2): Insulation is mechanically attached to roof deck. Membrane 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.

Thermal Barrier: (Optional) Minimum ¼" Dens Deck® Roof Board, Dens Deck® Prime Roof Board, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of the following insulations.

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3 Minimum 2" thick	**N/A**	**N/A**

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
SECUROCK® Gypsum-Fiber Roof Board Minimum $^5/_8$" thick	**2, 8**	**1:1.6 ft^2**

Note: Base insulation is loose laid. Top layer of insulation is fastened through the base layer, the optional vapor retarder and thermal barrier (when present) 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: Flex TPO II fully adhered in Pliobond 2835 adhesive applied at a total rate of 2.0 gal./sq. per manufacturer's installation 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 top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are heat welded with minimum 1-1/2" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

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

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Min. 22 gauge, Grade 33, Type B-WR steel deck is secured to 0.25 in. thick steel structural supports spaced 72 in. o.c. with Teks 5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced 6 in. o.c. The deck side laps fastened 24 in. o.c. with Stitch Teks 1 or Hilti S-SLC 01 M HWH fasteners.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(3): Insulation is mechanically attached to roof deck. Membrane subsequently fully adhered or partially 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.

Thermal Barrier: (Optional) Minimum 5/8" thick DensDeck® Roof Board, DensDeck® Prime Roof Board, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of the following insulations.

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3 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, 12**	**1:1.78 ft²**

Note: Base insulation is loose laid. Top layer of insulation is fastened through the base layer, optional thermal barrier (when present) 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: Flex TPO II fully adhered in Pliobond 2835 adhesive applied at a total rate of 1.2 – 1.67 gal./sq. per manufacturer's installation 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 top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be a minimum 2" for hand welding.
OR

Membrane: (Continued)

Flex TPO II fully adhered in LA505 Bonding Adhesive TPO Membrane applied at a total rate of 0.91 gal./sq. per manufacturer's installation 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 top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
OR
Flex TPO II fully adhered in Flex EG WB 181 Bonding Adhesive applied at a total rate of 0.83gal./sq. per manufacturer's installation instructions. One quarter of the adhesive is applied to the back of the roof cover and three quarters of the adhesive is applied to the substrate. The top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
OR
Flex TPO II FB partially adhered in Millennium PG-1 Low Viscosity Insulation Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium PG-1 Fleeceback Membrane Adhesive applied in 0.75 - 1.0 in. wide ribbons spaced 12 in. o.c. per manufacturer's installation instructions. The top surface of the membrane is rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1-1/2" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
OR
Flex TPO II FB fully adhered with Flex EG WB 181 Bonding Adhesive applied at a total rate of 0.83 – 1.0 gal./sq. All of the adhesive is applied to the substrate and the membrane is installed into the wet adhesive as soon as practical (do not allow adhesive to string or dry). The top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

Maximum Design Pressure:

-52.5 psf. (See General limitation #7)

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Min. 22 gauge, Grade 33, Type B-WR steel deck is secured to minimum 0.25 in. thick steel structural supports spaced, maximum 72 in. o.c. with Teks 5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced 6 in. o.c. at each bearing. The deck side laps are fastened 24 in. o.c. with Stitch Teks 1 or Hilti S-SLC 01 M HWH fasteners.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(4): Insulation is mechanically attached to roof deck. Membrane 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.

Thermal Barrier: (Optional) Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of the following insulations.

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3 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, 14**	**1:1 ft²**

Note: Base insulation is loose laid. Top layer of insulation is fastened through the base layer, the optional thermal barrier (when present) 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: Flex TPO II fully adhered in Pliobond 2835 adhesive applied at a total rate of 1.67 gal./sq. per manufacturer's installation 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 top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
OR

Flex TPO II fully adhered in Flex EG WB 181 Bonding Adhesive applied at a total rate of 0.84 – 1.0 gal./sq. per manufacturer's installation instructions. One quarter of the adhesive is applied to the back of the roof cover and three quarters of the adhesive is applied to the substrate. The top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

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

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Min. 22 gauge, Grade 33, Type B-WR steel deck secured to minimum 0.25 in. thick steel structural supports spaced, maximum 72 in. on center with ICH TRAXX/5, ICH TRAXX/4, Teks 4, Teks 5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners. The deck is fastened to the structural steel supports with fasteners applied 6" o.c. The deck side laps are fastened 24" o.c. with ICH TAXX/1, Stitch Teks 1 or Hilti S-SLC 01 M HWH fasteners.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(5): Insulation is mechanically attached to roof deck. Membrane 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.

Thermal Barrier: (Optional) Min. 1/4" thick DensDeck® Roof Board, DensDeck® Prime® Roof Board, min. ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK Glass-Mat Roof Board or min. ¾" thick FescoBoard, loose laid.

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

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3 Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck® Prime® Roof Board Minimum 1/4" thick	**1, 2, 8, 9, 11**	**1: 1.45 ft^2**

Note: Base insulation is loose laid. Top layer of insulation is fastened through the base layer, the optional thermal barrier (when present) and 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: Flex TPO II fully adhered in Flex EG WB 181 Bonding Adhesive applied at a total rate of 0.84 gal./sq. per manufacturer's installation instructions. One quarter of the adhesive is applied to the back of the roof cover and three quarters of the adhesive is applied to the substrate. The top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
OR

Membrane: (Continued)

Flex TPO II fully adhered in Pliobond 2835 adhesive applied at a total rate of 1.67 gal./sq. per manufacturer's installation instructions. 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. The top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are heat welded with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
OR
Flex TPO II fully adhered in LA505 Bonding Adhesive TPO Membrane applied at a total rate of 0.91 gal./sq. per manufacturer's installation instructions. One half of the adhesive is applied to the substrate and the other half is applied to the back surface of the roof cover. The top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
OR
Flex TPO II FB fully adhered with Flex EG WB 181 Bonding Adhesive applied at total rate of 0.83 – 1.0 gal./sq. per manufacturer's installation instructions. All of the adhesive is applied to the substrate and the membrane is installed into the wet adhesive as soon as practical (do not allow adhesive to string or dry). The top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

Maximum Design Pressure:

-52.5 psf. (See General limitation #7)

Membrane Type: TPO

Deck Type 2I: Steel, insulated

Deck Description: Min. 22 gauge, Grade 33, steel deck.

System Type C(6): Insulation is mechanically attached to roof deck. Membrane 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.

Thermal Barrier: (Optional) Minimum ¼" DensDeck® Roof Board, DensDeck® Prime Roof Board, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or minimum 3/4" FescoBoard loose laid on steel deck.

One or more layers of the following insulations.

Base Insulation Layer(s)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
DensDeck® Prime® Roof Board, SECUROCK® Gypsum-Fiber Roof Board		
Minimum 1/4" thick	**1, 2, 8, 9, 11, 12**	**1: 3.2 ft²**
SECUROCK® Gypsum-Fiber Roof Board		
Minimum 3/8" thick	**1, 2, 8, 9, 11, 12**	**1: 4.0 ft²**

Note: Base insulation is loose laid with a maximum thickness of 12 inches. Top layer of insulation is fastened through the base layer, the optional thermal barrier (when present) and into the steel deck; see top insulation layer for fasteners and density. Insulation panels listed are 48 x 96 in.; 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: Flex TPO II FB fully adhered in Millennium PG-1 Low Viscosity Insulation Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium PG-1 Fleeceback Membrane Adhesive applied in 0.75 - 1.0 in. wide ribbons spaced 4 in. o.c. for full coverage per manufacturer's installation instructions. The top surface of the roof cover is rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1-1/2" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
OR
Flex TPO II FB fully adhered with Flex EG WB 181 Bonding Adhesive applied at total rate of 0.84 – 1.0 gal./sq. per manufacturer's installation instructions. All of the adhesive is applied to the substrate and the membrane is installed into the wet adhesive as soon as practical (do not allow adhesive to string or dry). The top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat weld for automatic machine welding. Weld width shall be minimum 2" for hand welding.

Membrane:
(Continued)

OR

Flex TPO II fully adhered in Pliobond 2835 adhesive applied at a total rate of 1.67 gal./sq. per manufacturer's installation instructions. 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. The top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

OR

Flex TPO II fully adhered in LA505 Bonding Adhesive TPO Membrane applied at a total rate of 0.91 gal./sq. per manufacturer's installation instructions. 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. The top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

OR

Flex TPO II fully adhered in Flex EG WB 181 Bonding Adhesive applied at a total rate of 0.84 – 1.0 gal./sq. per manufacturer's installation instructions. One quarter of the adhesive is applied to the back of the roof cover and three quarters of the adhesive is applied to the substrate. The top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: TPO

Deck Type 2I: Steel, insulated

Deck Description: Min. 22 gauge, Grade 33, Type B-WR steel deck secured to 0.25 thick structural supports spaced 72 in. o.c. using Teks 4, Teks 5, ICH Traxx/4, ICH Traxx/5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 screws spaced 6 in. o.c. and with side laps secured with ICH Traxx/1, Stitch Teks 1, or Hilti S-SLC 01 M HWH fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(7): Insulation is mechanically attached to roof deck. Membrane 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.

Thermal Barrier: (Optional) Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of the following insulations.

Base Insulation Layer(s)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3 Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
SECUROCK® Gypsum-Fiber Roof Board Minimum 3/8" thick	**1, 2, 9, 10, 11, 12**	**1:1.3 ft²**

Note: Base insulation is loose laid with a maximum thickness of 12 inches. Top layer of insulation is fastened through the base layer, the optional thermal barrier (when present) into the steel deck; see top insulation layer for fasteners and density. Insulation panels listed are 48 x 96 in.; 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: Flex TPO II FB fully adhered in Millennium PG-1 Low Viscosity Insulation Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium PG-1 Fleeceback Membrane Adhesive applied in 0.75 - 1.0 in. wide ribbons spaced 4 in. o.c. for full coverage per manufacturer's installation instructions. The top surface of the membrane is rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1-1/2" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
OR

Membrane: (Continued)

Flex TPO II fully adhered in Pliobond 2835 adhesive applied at a total rate of 1.67 gal./sq. per manufacturer's installation instructions. 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. The top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
OR
Flex TPO II fully adhered in LA505 Bonding Adhesive TPO Membrane applied at a total rate of 0.91 gal./sq. per manufacturer's installation 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 top surface of the membrane is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

Maximum Design Pressure:

-67.5 psf. (See General limitation #7)

Membrane Type: TPO

Deck Type 2I: Steel, insulated

Deck Description: Min. 22 gauge, Grade 33, Type B-WR steel deck secured to minimum 0.25 in. thick structural supports spaced maximum 72 in. o.c. using Teks 4, Teks 5, ICH Traxx/4, ICH Traxx/5, or Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced 6 in. o.c. and with side laps secured with ICH Traxx/1, Stitch Teks 1, Hilti S-SLC 01 M HWH fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(8): Insulation is mechanically attached to roof deck. Membrane 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.

Thermal Barrier: (Optional) Min. ¼" DensDeck® Roof Board, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1.5" thick	**1, 2, 9, 10, 11, 12 14**	**1:1.3 ft^2**

Note: Base insulation is loose laid with a maximum thickness of 12 inches. Top layer of insulation is fastened through the base layer, the optional thermal barrier (when present) into the steel deck; see top insulation layer for fasteners and density. Insulation panels listed are 48 x 96 in.; 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: Flex TPO II FB fully adhered in Millennium PG-1 Low Viscosity Insulation Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium PG-1 Fleeceback Membrane Adhesive applied in 0.75 - 1.0 in. ribbons spaced 4 in. o.c. for full coverage per manufacturer's installation instructions. The top surface of the roof cover is rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

Maximum Design Pressure: -60 psf. (See General limitation #7)

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 gauge, Grade 33, Type B-WR steel deck secured to minimum 0.25 in. thick structural supports spaced maximum 72 in. o.c. using Teks 4, Teks 5, ICH Traxx/4, ICH Traxx/5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced 6 in. o.c. and with side laps secured with ICH Traxx/1, Stitch Teks 1, or Hilti S-SLC 01 M HWH fasteners spaced at 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(9): Insulation is mechanically attached to roof deck. Membrane is subsequently partially 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.

One or more layers of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Flex EG Polyiso, EnergyGuard™ Ultra Polyiso Insulation Minimum 1.5" thick	**1, 2, 9, 10, 11, 12, 14**	**1:1.33 ft^2**

Note: Insulation 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 boards shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Flex TPO II FB partially adhered in Millennium PG-1 Low Viscosity Insulation Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium PG-1 Fleeceback Membrane Adhesive applied in 0.75 - 1.0 in. wide ribbons spaced 12 in. o.c. per manufacturer's installation instructions. The top surface of the membrane is rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1-1/2" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

Maximum Design Pressure: -60 psf. (See General limitation #7)

Membrane Type: TPO

Deck Type 2I: Steel, insulated

Deck Description: Minimum 20 gauge, Grade 33, Type B, G-90 steel deck secured to structural supports spaced maximum 84 in. o.c. with 5/8" diameter puddle welds spaced maximum 6 in. o.c. The deck side laps are secured with ¼-14 x 7/8" HWH spaced maximum 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(10): Insulation is mechanically secured to the roof deck. Membrane is subsequently fully adhered to the 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.

One or more layers of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Flex EG Polyiso, H-Shield, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 2" thick	**1, 2, 8, 9, 10, 11, 12, 14**	**1:1.6 ft^2**

Note: Insulation shall be 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. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Flex TPO II fully adhered with Pliobond 2835 adhesive applied at a total rate of 1.67 gal./sq. per manufacturer's installation instructions. 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. The top surface of the roof cover is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
OR
Flex TPO II fully adhered with LA505 Bonding Adhesive TPO Membrane applied at a total rate of 0.91 gal./sq. per manufacturer's installation 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 top surface of the roof cover is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
OR
(Only for use with Flex EG Polyiso) Flex TPO II fully adhered with Flex EG WB 181 Bonding Adhesive applied at a total rate of 0.83 – 1.0 gal./sq. per manufacturer's installation instructions. Three-fourths of the adhesive is applied to the substrate and the other one-fourth is applied to the back surface of the roof cover. The top surface of the roof cover is broomed or rolled per manufacturer's installation instructions after adhering the membrane to the substrate to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
OR

Membrane: (Continued)

Flex TPO II FB fully adhered with Millennium PG-1 Low Viscosity Insulation Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium PG-1 Fleeceback Membrane Adhesive applied in 0.75 - 1.0 in. wide ribbons spaced 4 in. o.c. for full coverage per manufacturer's installation instructions. The top surface of the roof cover is rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

OR

(Only for use with Flex EG Polyiso) Flex TPO II FB fully adhered with Flex EG WB 181 Bonding Adhesive applied at a total rate of 0.83 – 1.0 gal./sq. per manufacturer's installation instructions. All of the adhesive is applied to the substrate and the membrane is rolled into the wet adhesive as soon as practical (do not allow adhesive to string or dry). The top surface of the roof cover is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

OR

(Only for use with Flex EG Polyiso) Flex TPO II FB fully adhered with Flex EG WB 181 Bonding Adhesive applied at a total rate of 0.83 – 1.0 gal./sq. per manufacturer's installation instructions. All of the adhesive is applied to the substrate and the membrane is rolled into the wet adhesive as soon as practical (do not allow adhesive to string or dry). The top surface of the roof cover is broomed or rolled per manufacturer's installation instructions to ensure complete bonding. The minimum 3" wide membrane side laps are sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

Maximum Design Pressure:

-67.5 psf. (See General limitation #7)

Membrane Type: TPO

Deck Type 2I: Steel, insulated

Deck Description: Minimum 20 gauge, Grade 33, Type B, G-90 steel deck secured to structural supports spaced maximum 84 in. o.c. with 5/8" diameter puddle welds spaced maximum 6 in. o.c. The deck side laps are secured with ¼-14 x 7/8" HWH spaced maximum 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(11): Insulation is mechanically attached to roof deck. Membrane 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.

One or more layers of the following insulations.

Base Insulation Layer(s)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3 Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK® Gypsum-Fiber Roof Board Minimum 1/4" thick	**1, 2, 9, 11**	**1:1.33 ft^2**

Note: All layers shall be simultaneously fastened; see top layer above for fasteners and density. 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. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Flex TPO II fully adhered with Pliobond 2835 adhesive applied at a total rate of 1.67 gal./sq. per manufacturer's installation instructions. Half of the adhesive is applied to the back of the roof cover and one half of the adhesive is applied to the substrate. Broom or roll the top surface of the membrane per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" wide for hand welding.
OR
Flex TPO II fully adhered with LA505 Bonding Adhesive TPO Membrane applied at a total rate of 0.91 gal./sq. per manufacturer's installation instructions. Half of the adhesive is applied to the substrate and the other half is applied to the back surface of the roof cover. Broom or roll the top surface of the membrane per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" wide for hand welding.
OR

Membrane: (Continued)

Flex TPO II fully adhered with Flex EG WB 181 Bonding Adhesive applied at a total rate of 0.83 – 1.0 gal./sq. per manufacturer's installation instructions. Three-fourths of the adhesive is applied to the substrate and the other one-fourth is applied to the back surface of the roof cover. Broom or roll the top surface of the membrane per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" wide for hand welding.

OR

Flex TPO II FB fully adhered with Millennium PG-1 Low Viscosity Insulation Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium PG-1 Fleeceback Membrane Adhesive applied per manufacturer's instructions in 0.75 - 1.0 in. wide ribbons spaced 4 in. o.c. for full coverage. Roll the top surface of the membrane per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

OR

Flex TPO II FB adhered with Flex EG WB 181 Bonding Adhesive applied at a rate of 0.84 gal./sq. to 1.0 gal./sq. per manufacturer's installation instructions. All of the adhesive is applied to the substrate and the membrane is installed into the wet adhesive as soon as practical (do not allow adhesive to string or dry). Broom or roll the top surface of the membrane per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

OR

Flex TPO II FB adhered with Flex EG WB 181 Bonding Adhesive applied at a rate of 0.84 gal./sq. to 1.0 gal./sq. per manufacturer's installation instructions. All of the adhesive is applied to the substrate and the membrane is installed into the wet adhesive as soon as practical (do not allow adhesive to string or dry). Broom or roll the top surface of the membrane per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

Maximum Design Pressure: -60 psf. (See General limitation #7)

Membrane Type: TPO

Deck Type 2I: Steel, insulated

Deck Description: Minimum 20 gauge, Grade 33, Type B, G-90 steel deck secured to structural supports spaced maximum 84 in. o.c. with 5/8" diameter puddle welds spaced maximum 6 in. o.c. The deck side laps are secured with ¼-14 x 7/8" HWH spaced maximum 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(12): Insulation is mechanically attached to roof deck. Membrane 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.

One or more layers of the following insulations.

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3 Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
SECUROCK® Gypsum-Fiber Roof Board Minimum 3/8" thick	**1, 2, 9, 11**	**1:1.45 ft^2**

Note: All layers shall be simultaneously fastened; see top layer above for fasteners and density. 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. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Flex TPO II fully adhered with Pliobond 2835 adhesive applied at a total rate of 1.67 gal./sq. per manufacturer's installation instructions. Half of the adhesive is applied to the back of the roof cover and one half of the adhesive is applied to the substrate. Broom or roll the top surface of the membrane per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
OR
Flex TPO II fully adhered with LA505 Bonding Adhesive TPO Membrane applied at a total rate of 0.91 gal./sq. per manufacturer's installation instructions. Half of the adhesive is applied to the substrate and the other half is applied to the back surface of the roof cover. Broom or roll the top surface of the membrane per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" wide for hand welding.
OR

Membrane: (Continued)

Flex TPO II fully adhered with Flex EG WB 181 Bonding Adhesive applied at a total rate of 0.83 – 1.0 gal./sq. per manufacturer's installation instructions. Three-fourths of the adhesive is applied to the substrate and the other one-fourth is applied to the back surface of the roof cover. Broom or roll the top surface of the membrane per manufacturer's installation to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" wide for hand welding.
OR
Flex TPO II FB fully adhered with Millennium PG-1 Low Viscosity Insulation Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium PG-1 Fleeceback Membrane Adhesive applied per manufacturer's instructions in 0.75 -1.0 in. wide ribbons spaced 4 in. o.c. for full coverage. Roll the top surface of the membrane per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" wide for hand welding.
OR
Flex TPO II FB adhered with Flex EG WB 181 Bonding Adhesive applied at a total rate of 0.84 gal./sq. to 1.0 gal./sq. per manufacturer's installation instructions. All of the adhesive is applied to the substrate and the membrane is installed into the wet adhesive as soon as practical (do not allow adhesive to string or dry). Broom or roll the top surface of the membrane per manufacturer's installation to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

Maximum Design Pressure:

-75 psf. (See General limitation #7)

Membrane Type: TPO

Deck Type 2I: Steel, insulated

Deck Description: Minimum 22 gauge, Grade 33, Type B, G-90 steel deck secured to structural supports spaced maximum 72 in. o.c. with 5/8" diameter puddle welds spaced maximum 6 in. o.c. The deck side laps are secured with ¼-14 x 7/8" HWH spaced maximum 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(13): Insulation is mechanically attached to roof deck. Membrane 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.

One or more layers of the following insulations.

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Dens Deck® Prime Roof Board, SECUROCK® Gypsum-Fiber Roof Board		
Minimum 1/4" thick	**1, 2, 9, 11**	**1:1.45 ft^2**

Note: All layers shall be simultaneously fastened; see top layer above for fasteners and density. 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. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Flex TPO II fully adhered with Flex EG WB 181 Bonding Adhesive applied at a total rate of 0.84 gal./sq. to 1.0 gal./sq. per manufacturer's installation instructions. One fourth of the adhesive is applied to the underside of the roof cover and three fourths is applied to the substrate. Broom or roll the top surface of the membrane per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

OR

Flex TPO II fully adhered with Pliobond 2835 adhesive applied at a total rate of 1.67 gal./sq. per manufacturer's installation instructions. Half of the adhesive is applied to the substrate and the other half is applied to the back surface of the roof cover. Broom or roll the top surface of the membrane per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

OR

Membrane: (Continued)

Flex TPO II fully adhered with LA505 Bonding Adhesive TPO Membrane applied at a total rate of 0.91 gal./sq. per manufacturer's installation instructions. Half of the adhesive is applied to the substrate and the other half is applied to the back surface of the roof cover. Broom or roll the top surface of the membrane per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

OR

Flex TPO II FB fully adhered with Millennium PG-1 Low Viscosity Insulation Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium PG-1 Fleeceback Membrane Adhesive applied per manufacturer's installation instructions in 0.75" – 1" wide ribbons spaced 4" o.c. for full coverage. Roll the top surface of the membrane per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

OR

Flex TPO II FB fully adhered with Flex EG WB 181 Bonding Adhesive applied at a rate of 0.84 gal./sq. to 1.0 gal./sq. per manufacturer's installation instructions. All of the adhesive is applied to the substrate and the membrane is installed into the wet adhesive as soon as practical (do not allow adhesive to string or dry). Broom or roll the top surface of the membrane per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

Maximum Design Pressure:

-60 psf. (See General limitation #7)

Membrane Type:	Single Ply, Thermoplastic, TPO
Deck Type 2I:	Steel, Insulated
Deck Description:	Minimum 22 gauge, Grade 33, Type B, G-90 steel deck secured to supports spaced at maximum 72″ o.c. using minimum 5/8” diameter puddle welds spaced maximum 6″ o.c. The deck side laps are fastened with ¼-14x7/8 HWH spaced maximum 24” o.c. along each side lap. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
System Type C(14):	Insulation is 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.

One or more layers of the following insulations.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Flex EG Polyiso, H-Shield, EnergyGuard™ Ultra Polyiso Insulation Minimum 2″ thick	**1, 2, 8, 9, 10, 11, 12, 14**	**1.78 ft^2**

Note: Insulation 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).

Membrane: Flex TPO II fully adhered with Pliobond 2835 adhesive applied at a total rate of 1.67 gal./sq. per manufacturer’s installation instructions. 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. Broom or roll the top surface of the membrane per manufacturer’s installation instructions to ensure complete bonding. Membrane side laps are minimum 3” wide and sealed with minimum 1.5” wide heat welds for automatic machine welding. Weld width shall be minimum 2” for hand welding.
OR
Flex TPO II fully adhered with LA505 Bonding Adhesive TPO Membrane applied at a total rate of 0.91 gal./sq. per manufacturer’s installation instructions. Half of the adhesive is applied to the substrate and the other half is applied to the back surface of the roof cover. Broom or roll the top surface of the membrane per manufacturer’s installation instructions to ensure complete bonding. Membrane side laps are minimum 3” wide and sealed with minimum 1.5” wide heat welds for automatic machine welding. Weld width shall be minimum 2” for hand welding.
OR

Membrane: (Continued)

(Only for use with Flex EG Polyiso or EnergyGuard™ Ultra Polyiso Insulation) Flex TPO II fully adhered with Flex EG WB 181 Bonding Adhesive applied at a total rate of 0.83 – 1.0 gal./sq. per manufacturer's installation instructions. Three-fourths of the adhesive is applied to the substrate and the other one-fourth is applied to the back surface of the roof cover. Broom or roll the top surface of the membrane per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
OR
Flex TPO II FB fully adhered with Millennium PG-1 Low Viscosity Insulation Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium PG-1 Fleeceback Membrane Adhesive applied in 0.75 - 1.0 in. wide ribbons spaced 4 in. o.c. for full coverage per manufacturer's installation instructions. Roll the top surface of the membrane per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" wide for hand welding.
OR
(Only for use with Flex EG Polyiso or EnergyGuard™ Ultra Polyiso Insulation) Flex TPO II FB fully adhered with Flex EG WB 181 Bonding Adhesive applied at a total rate of 0.83 – 1.0 gal./sq. per manufacturer's installation instructions. All of the adhesive is applied to the substrate and the membrane is rolled into the wet adhesive as soon as practical (do not allow adhesive to string or dry). Broom or roll the top surface of the membrane per manufacturer's installation instructions to ensure complete bonding. Membrane side laps are minimum 3" wide and sealed with minimum 1.5" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

Maximum Design Pressure:

-60 psf. (See General Limitation #7)

Membrane Type:	Single Ply, Thermoplastic, TPO
Deck Type 2I:	Steel, Insulated
Deck Description:	Minimum 22 gauge, Grade 33, Type B, G-90 steel deck secured to supports spaced at maximum 72″ o.c. using minimum 5/8” diameter puddle welds spaced maximum 6″ o.c. The deck side laps are fastened with ¼-14x7/8 HWH spaced maximum 24” o.c. along each side lap. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
System Type C(15):	Insulation is mechanically attached to roof deck. Membrane is subsequently partially 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.

One or more layers of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Flex EG Polyiso, H-Shield, EnergyGuard™ Ultra Polyiso Insulation Minimum 2″ thick	**1, 2, 8, 9, 10, 11, 12, 14**	**1.78 ft^2**

Note: Insulation 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).

Membrane: Flex TPO II FB is partially adhered to the insulation with Millennium PG-1 Low Viscosity Insulation Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium PG-1 Fleeceback Membrane Adhesive applied in 0.75 - 1.0 in. wide ribbons spaced 12 in. o.c. Roll the top surface of the membrane per manufacturer’s installation instructions to ensure complete bonding. Membrane side laps are minimum 3” wide and sealed with minimum 1.5” wide heat welds for automatic machine welding. Weld width shall be minimum 2” for hand welding.

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

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Min. 18 gauge, Grade 33, Type B-WR steel deck secured to supports spaced 6 ft. o.c. with ITW Buildex Corp Teks 5 screws with 0.75 in. washers, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced 6 in. o.c. and with side laps secured with ITW Buildex Corp Traxx/1 or Hilti S-SLC 01 M HWH fasteners spaced 12 in.
OR
Min. 20 gauge, Grade 33, Type B-WR steel deck secured to supports spaced 5.5 ft. o.c. with ITW Buildex Corp Teks 5 screws with 0.75 in. washers, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced 6 in. o.c. and with side laps secured with ITW Buildex Corp Traxx/1 or Hilti S-SLC 01 M HWH fasteners spaced 12 in.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(16): 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.

Thermal Barrier: (Optional) Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1.5" thick	**See Membrane Section**	**See Membrane Section**

Note: Insulation is preliminarily attached through the optional thermal barrier (when present) into the steel deck 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. The total insulation thickness must be greater than or equal to 2" when using RhinoBond TreadSafe Plates (for TPO). Please refer to Roofing application Standard RAS 117 for insulation attachment requirements.

Membrane: Flex TPO II mechanically attached to deck with #15 Roofgrip fasteners and RhinoBond Insulation Plates (for TPO) or RhinoBond TreadSafe Plates (for TPO) applied 6 in. o.c. in rows spaced maximum 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 per manufacturer's installation instructions. Weighted cooling magnets are placed over the plates after the bonding process for a minimum of 45 seconds. Minimum 2 in. laps heat welded with minimum 1.5 in. wide heat weld placed on the outside edge of the lap.

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

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Min. 22 gauge, Grade 80, Type B-WR steel deck secured to supports spaced 6 ft. o.c. with ITW Buildex Corp Teks 5 screws, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced 6 in. o.c. and with side laps secured with ITW Buildex Corp Traxx/1 screws or Hilti S-SLC 01 M HWH fasteners spaced 12 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(17): 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.

Thermal Barrier: (Optional) Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of the following insulations.

Base Insulation Layer(s)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1.5" thick	**See Membrane Section**	**See Membrane Section**

Top Insualtion Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Structodek® High Density Fiber Board Roof Insulation, H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation		
Minimum 0.5" thick	**See Membrane Section**	**See Membrane Section**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board		
Minimum 0.25" thick	**See Membrane Section**	**See Membrane Section**

Note: Insulation is preliminarily attached through the optional thermal barrier (when present) into the steel deck 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. A 5/8 in. diameter pilot hole must be drilled when using RhinoBond TreadSafe Plates (for TPO) with gypsum or wood fiber top insulation layers. The insulation thickness must be greater than or equal to 2" when using RhinoBond TreadSafe Plates (for TPO). Please refer to Roofing application Standard RAS 117 for insulation attachment requirements.

Membrane: Flex TPO II mechanically attached to deck with #15 Roofgrip fasteners and RhinoBond Insulation Plates (for TPO) or RhinoBond TreadSafe Plates (for TPO) applied 6 in. o.c. in rows spaced maximum 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. Weighted cooling magnets are placed over the plates after the bonding process for a minimum of 45 seconds. Minimum 2 in. laps heat welded with minimum 1.5 in. wide heat weld placed on the outside edge of the lap.

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

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Min. 22 gauge, SS Grade 33, Type B steel deck secured to min. 0.25 in. thick structural supports spaced maximum 72 in. o.c. with ICH Traxx/5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced maximum 6 in. o.c. at each bottom rib. The deck side laps are secured with ICH Traxx/1 or Hilti S-SLC 01 M HWH fasteners spaced maximum 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(18): 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.

Thermal Barrier: (Optional) Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of the following insulations.

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Flex EG Polyiso, Tapered Flex EG Polyiso, ACFoam-II, Tapered ACFoam, H-Shield, Tapered H-Shield, ENRGY 3, Tapered ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1.5" thick	**See Membrane Section**	**See Membrane Section**

Top Insualtion Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
EnergyGuard™ HD Polyiso Insulation, H-Shield HD, EnergyGuard™ HD Plus Polyiso Insulation, Structodek® High Density Fiberboard Roof Insulation		
Minimum 0.5" thick	**See Membrane Section**	**See Membrane Section**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board,		
Minimum 0.25" thick	**See Membrane Section**	**See Membrane Section**

Note: Insulation layer is preliminarily attached through the optional thermal barrier (when present) into the steel deck Preliminary attachment is accomplished by the RhinoBond membrane fasteners applied as described below for membrane attachment. A 5/8 in. diameter pilot hole must be drilled when using RhinoBond TreadSafe Plates (for TPO) with gypsum or wood fiber cover boards. The total insulation thickness must be greater than or equal to 2" when using RhinoBond TreadSafe Plates (for TPO). Please refer to Roofing application Standard RAS 117 for insulation attachment requirements.

Membrane: Flex TPO II mechanically attached to deck with RhinoBond SXHD Plates (for TPO), RhinoBond Insulation Plates (for TPO) or RhinoBond TreadSafe Plates (for TPO) with #15 Roofgrip fasteners as described below for each membrane fastening option:

Fastening Option #1: Fasteners are applied on a 24 x 24 in. grid. The underside of the roof cover is bonded to the stress plates with the OMG RhinoBond® tool. Weighted cooling magnets are placed over the plates after the bonding process for a minimum of 45 seconds. Min. 3" wide lap and sealed with a minimum 1-1/2" 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 Option #2: Fasteners are applied on a 16 x 24 in. grid. The underside of the roof cover is bonded to the stress plates with the OMG RhinoBond® tool. Weighted cooling magnets are placed over the plates after the bonding process for a minimum of 45 seconds. Min. 3" wide lap and sealed with a minimum 1-1/2" heat weld for automatic machine welding. Weld width shall be a minimum 2" width for hand welding.

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

Maximum Design Pressure: See Fastening Options above.

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 gauge, Grade 33, Type B, G-90 steel deck secured to structural supports spaced maximum 72 in. o.c. with 5/8" diameter puddle welds spaced maximum 6 in. o.c. The deck side laps are secured with ¼-14 x 7/8" HWH spaced maximum 24 in. o.c.
OR
Minimum 22 gauge, Grade 33, Type B, G-90 steel deck secured to structural supports spaced maximum 6 ft. o.c. with Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced maximum 6 in. o.c. The deck side laps are secured with Hilti S-SLC 01 M HWH fasteners spaced maximum 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(19): 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.

One or more layers of any of the following insulations.

Base Insulation Layer(s)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1" thick	**See Membrane Section**	**See Membrane Section**

Top Insualtion Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Structodek® High Density Fiber Board Roof Insulation, H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation		
Minimum 0.5" thick	**See Membrane Section**	**See Membrane Section**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board		
Minimum 0.25" thick	**See Membrane Section**	**See Membrane Section**

Note: Preliminary attachment of the insulation is accomplished by the RhinoBond membrane fasteners installed as described below for membrane attachment. A 5/8 in. diameter pilot hole must be drilled when using RhinoBond TreadSafe Plates (for TPO) with gypsum or wood fiber cover boards. The total insulation thickness must be greater than or equal to 2.0 in. when using the RhinoBond TreadSafe Plates (for TPO). Please refer to Roofing application Standard RAS 117 for insulation attachment requirements.

Membrane: Flex TPO II is mechanically attached to deck with RhinoBond Insulation Plates (for TPO) or RhinoBond TreadSafe Plates (for TPO) and #15 Roofgrip fasteners as described below:

Fastening: 8 fasteners and plates applied per 48 x 96 in. board. The membrane is bonded to the stress plates with the OMG RhinoBond® tool per manufacturer's installation instructions. Weighted cooling magnets are placed over the plates after the bonding process for a minimum of 45 seconds. The minimum 3" wide membrane side laps are sealed with minimum 1-1/2" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

Maximum Design Pressure: -60 psf. (See General limitation #7).

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 gauge, Grade 33, Type B, G-90 steel deck secured to structural supports spaced maximum 72 in. o.c. with 5/8" diameter puddle welds spaced maximum 6 in. o.c. The deck side laps are secured with ¼-14 x 7/8" HWH spaced maximum 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(20): 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.

One or more layers of any of the following insulations.

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1" thick	**See Membrane Section**	**See Membrane Section**

Top Insualtion Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Structodek® High Density Fiber Board Roof Insulation, H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation		
Minimum 0.5" thick	**See Membrane Section**	**See Membrane Section**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board		
Minimum 0.25" thick	**See Membrane Section**	**See Membrane Section**

Note: Preliminary attachment of the insulation is accomplished by the RhinoBond membrane fasteners installed as described below for membrane attachment. A 5/8 in. diameter pilot hole must be drilled when using RhinoBond TreadSafe Plates (for TPO) with gypsum or wood fiber cover boards. The total insulation thickness must be greater than or equal to 2.0 in. when using the RhinoBond TreadSafe Plates (for TPO). Please refer to Roofing application Standard RAS 117 for insulation attachment requirements.

Membrane: Flex TPO II is mechanically attached to deck with RhinoBond Insulation Plates (for TPO) or RhinoBond TreadSafe Plates (for TPO) and #15 Roofgrip fasteners as described below:

Fastening: 12 fasteners and plates applied per 48 x 96 in. board. The membrane is bonded to the stress plates with the OMG RhinoBond® tool per manufacturer's installation instructions. Weighted cooling magnets are placed over the plates after the bonding process for a minimum of 45 seconds. The minimum 3" wide membrane side laps are sealed with minimum 1-1/2" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

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

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 gauge, Grade 33, Type B, G-90 steel deck secured to structural supports spaced maximum 6 ft. o.c. with Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced maximum 6 in. o.c. The deck side laps are secured with Hilti S-SLC 01 M HWH fasteners spaced maximum 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(21): 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.

One or more layers of any of the following insulations.

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1" thick	**See Membrane Section**	**See Membrane Section**

Top Insualtion Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Structodek® High Density Fiber Board Roof Insulation, H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation		
Minimum 0.5" thick	**See Membrane Section**	**See Membrane Section**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board		
Minimum 0.25" thick	**See Membrane Section**	**See Membrane Section**

Note: Preliminary attachment of the insulation is accomplished by the RhinoBond membrane fasteners installed as described below for membrane attachment. A 5/8 in. diameter pilot hole must be drilled when using RhinoBond TreadSafe Plates (for TPO) with gypsum or wood fiber cover boards. The total insulation thickness must be greater than or equal to 2.0 in. when using the RhinoBond TreadSafe Plates (for TPO). Please refer to Roofing application Standard RAS 117 for insulation attachment requirements.

Membrane: Flex TPO II is mechanically attached to deck with RhinoBond Insulation Plates (for TPO) or RhinoBond TreadSafe Plates (for TPO) and #15 Roofgrip fasteners as described below:

Fastening: 12 fasteners and plates applied per 48 x 96 in. board. The membrane is bonded to the stress plates with the OMG RhinoBond® tool per manufacturer's installation instructions. Weighted cooling magnets are placed over the plates after the bonding process for a minimum of 45 seconds. The minimum 3" wide membrane side laps are sealed with minimum 1-1/2" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

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

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 20 gauge, Grade 33, Type B, G-90 steel deck secured to structural supports spaced maximum 84 in. o.c. with 5/8" diameter puddle welds spaced maximum 6 in. o.c. The deck side laps are secured with ¼-14 x 7/8" HWH spaced maximum 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(22): 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.

One or more layers of any of the following insulations.

Base Insulation Layer(s)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1" thick	**See Membrane Section**	**See Membrane Section**

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Structodek® High Density Fiber Board Roof Insulation, H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation		
Minimum 0.5" thick	**See Membrane Section**	**See Membrane Section**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board		
Minimum 0.25" thick	**See Membrane Section**	**See Membrane Section**

Note: Preliminary attachment of the insulation is accomplished by the RhinoBond membrane fasteners installed as described below for membrane attachment. A 5/8 in. diameter pilot hole must be drilled when using RhinoBond TreadSafe Plates (for TPO) with gypsum or wood fiber cover boards. The total insulation thickness must be greater than or equal to 2.0 in. when using the RhinoBond TreadSafe Plates (for TPO). Please refer to Roofing application Standard RAS 117 for insulation attachment requirements.

Membrane: Flex TPO II is mechanically attached to deck with RhinoBond Insulation Plates (for TPO) or RhinoBond TreadSafe Plates (for TPO) and #15 Roofgrip fasteners applied at a rate of 8 fasteners per 48 x 96 in. board. The membrane is bonded to the stress plates with the OMG RhinoBond® tool per manufacturer's installation instructions. Weighted cooling magnets are placed over the plates after the bonding process for a minimum of 45 seconds. The minimum 3" wide membrane side laps are sealed with minimum 1-1/2" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

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

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Grade 80, Type B steel deck secured to minimum ¼" thick supports space maximum 5.5 ft. o.c. with ITW Buildex Traxx/4, Traxx/5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced 6" o.c. Deck side laps are secured with ITW Buildex Traxx/1 or Hilti S-SLC 01 M HWH fasteners spaced maximum 30" o.c.
OR
Minimum 20 ga., Grade 80, Type B steel deck secured to minimum ¼" thick supports space maximum 6 ft. o.c. with ITW Buildex Traxx/4, Traxx/5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced 6" o.c. Deck side laps are secured with ITW Buildex Traxx/1 or Hilti S-SLC 01 M HWH fasteners spaced maximum 30" o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type D(1): Insulation is loose laid with preliminary attachment to roof deck. Membrane is subsequently mechanically fastened through 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, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of the following insulations.

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Retro-Fit Board, Structodek® High Density Fiber Board Roof Insulation, H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation		
Minimum 0.5" thick	**N/A**	**N/A**
FescoBoard		
Minimum 0.75" thick	**N/A**	**N/A**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

Note: Insulation is preliminarily attached through the optional thermal barrier (when present) into the steel deck 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.

Membrane: Flex TPO II attached through the preliminary attached insulation and into the steel deck as specified below.

Fastening: Membrane is mechanically attached using #15 Roofgrip fasteners and OMG 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 1.5" 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)

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Grade 80, Type B steel deck secured to minimum ¼" thick supports space maximum 4 ft. o.c. with ITW Buildex Traxx/4, Traxx/5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced 6" o.c. Deck side laps are secured with ITW Buildex Traxx/1 screws or Hilti S-SLC 01 M HWH fasteners spaced maximum 24" o.c.
OR
Minimum 20 ga., Grade 80, Type B steel deck secured to minimum ¼" thick supports space maximum 5 ft. o.c. with ITW Buildex Traxx/4, Traxx/5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced 6" o.c. Deck side laps are secured with ITW Buildex Traxx/1 screws or Hilti S-SLC 01 M HWH fasteners spaced maximum 24" o.c.
OR
Minimum 18 ga., Grade 80, Type B steel deck secured to minimum ¼" thick supports space maximum 6 ft. o.c. with ITW Buildex Traxx/4, Traxx/5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced 6" o.c. Deck side laps are secured with ITW Buildex Traxx/1 screws or Hilti S-SLC 01 M HWH fasteners spaced maximum 24" o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type D(2): Insulation is loose laid with preliminary attachment to roof deck. Membrane is subsequently mechanically fastened through 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, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of the following insulations.

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Retro-Fit Board, Structodek® High Density Fiber Board Roof Insulation, H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation		
Minimum 0.5" thick	**N/A**	**N/A**
FescoBoard		
Minimum 0.75" thick	**N/A**	**N/A**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

Note: Insulation is preliminarily attached through the optional thermal barrier (when present) into the steel deck 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.

Membrane: Flex TPO II attached through the preliminary attached insulation and into the steel deck as specified below.

Fastening: Membrane is mechanically attached using #15 Roofgrip fasteners and Polymer GypTec Plate 2" with barbs 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)

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Grade 80, Type B steel deck secured to minimum ¼" thick supports space maximum 6 ft. o.c. with ITW Buildex Traxx/5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced 6" o.c. Deck side laps are secured with ITW Buildex Traxx/1 or Hilti S-SLC 01 M HWH fasteners spaced maximum 24" o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type D(3): Insulation is loose laid with preliminary attachment to roof deck. Membrane is subsequently mechanically fastened through 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, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of the following insulations.

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Retro-Fit Board, Structodek® High Density Fiber Board Roof Insulation, H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation		
Minimum 0.5" thick	**N/A**	**N/A**
FescoBoard		
Minimum 0.75" thick	**N/A**	**N/A**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

Note: Insulation is preliminarily attached through the optional thermal barrier (when present) into the steel deck 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.

Membrane: Flex TPO II attached through the preliminary attached insulation as specified below.

Fastening: Membrane is mechanically attached using OMG Super XHD fasteners and OMG 2-3/4" Super XHD Barbed 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)

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Grade 80, Type B steel deck secured to minimum ¼" thick supports space maximum 5 ft. o.c. with ITW Buildex Traxx/5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced 6" o.c. Deck side laps are secured with ITW Buildex Traxx/1 screws or Hilti S-SLC 01 M HWH fasteners spaced maximum 24" o.c.
OR
Minimum 20 ga., Grade 80, Type B steel deck secured to minimum ¼" thick supports space maximum 6 ft. o.c. with ITW Buildex Traxx/5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced 6" o.c. Deck side laps are secured with ITW Buildex Traxx/1 screws or Hilti S-SLC 01 M HWH fasteners spaced maximum 24" o.c.
OR
Minimum 18 ga., Grade 33, Type B steel deck secured to minimum ¼" thick supports space maximum 4.5 ft. o.c. with ITW Buildex Traxx/5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced 6" o.c. Deck side laps are secured with ITW Buildex Traxx/1 screws or Hilti S-SLC 01 M HWH fasteners spaced maximum 24" o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type D(4): Insulation is loose laid with preliminary attachment to roof deck. Membrane is subsequently mechanically fastened through 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, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of the following insulations.

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1.5" thick	**N/A**	**N/A**
Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Retro-Fit Board, Structodek® High Density Fiber Board Roof Insulation, H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation		
Minimum 0.5" thick	**N/A**	**N/A**
FescoBoard		
Minimum 0.75" thick	**N/A**	**N/A**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

Note: Insulation is preliminarily attached through the optional thermal barrier (when present) into the steel deck 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.

Membrane: Flex TPO II attached through the preliminary attached insulation as specified below.

Fastening: Membrane is mechanically attached using #15 Roofgrip fasteners and OMG 2-3/8" Barbed XHD Plates or Polymer GypTec Plate 2" with barbs 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. Weld width shall be a minimum 2" width for hand welding.

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

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Grade 80, Type B steel deck secured to minimum ¼" thick supports space maximum 4.5 ft. o.c. with ITW Buildex Traxx/5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced 6" o.c. Deck side laps are secured with ITW Buildex Traxx/1 screws or Hilti S-SLC 01 M HWH fasteners spaced maximum 24" o.c.
OR
Minimum 20 ga., Grade 80, Type B steel deck secured to minimum ¼" thick supports space maximum 6 ft. o.c. with ITW Buildex Traxx/5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced 6" o.c. Deck side laps are secured with ITW Buildex Traxx/1 screws or Hilti S-SLC 01 M HWH fasteners spaced maximum 24" o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type D(5): Insulation is loose laid with preliminary attachment to roof deck. Membrane is subsequently mechanically fastened through 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, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of the following insulations.

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Retro-Fit Board, Structodek® High Density Fiber Board Roof Insulation, H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation		
Minimum 0.5" thick	**N/A**	**N/A**
FescoBoard		
Minimum 0.75" thick	**N/A**	**N/A**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

Note: Insulation is preliminarily attached through the optional thermal barrier (when present) into the steel deck 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.

Membrane: Flex TPO II attached through the preliminary attached insulation as specified below.

Fastening: Membrane is mechanically attached using #15 Roofgrip fasteners and OMG 2-3/4" Super XHD Barbed 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)

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Grade 55, Type B steel deck secured to minimum ¼" thick supports space maximum 6 ft. o.c. with ITW Buildex Traxx/5 spaced 6" o.c. Deck side laps are secured with ITW Buildex Traxx/1 fasteners spaced maximum 24" o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type D(6): Insulation is loose laid with preliminary attachment to roof deck. Membrane is subsequently mechanically fastened through 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, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of the following insulations.

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Retro-Fit Board, Structodek® High Density Fiber Board Roof Insulation, H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation		
Minimum 0.5" thick	**N/A**	**N/A**
FescoBoard		
Minimum 0.75" thick	**N/A**	**N/A**
DensDeck® Roof Board, Securock® Gypsum-Fiber Roof Board, Securock® Glass-Mat Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

Note: Insulation is preliminarily attached through the optional thermal barrier (when present) into the steel deck 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.

Membrane: Flex TPO II attached through the preliminary attached insulation as specified below.

Fastening: Membrane is mechanically attached using #15 Roofgrip fasteners and OMG 2-3/8" Barbed XHD Plates spaced 6" o.c. within minimum 5" wide laps. Laps are spaced at maximum 90" o.c. and sealed with a minimum 1.5" wide heat weld. Weld width shall be a minimum 2" width for hand welding.

Maximum Design Pressure: –60 psf. (See General Limitation #7)

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Min. 22 gauge, Grade 80, 1.5 in. deep, Type B-WR steel roof deck secured to minimum 0.25 in. thick structural supports spaced maximum 5 ft. o.c. with Teks 4, Teks 5, ICH Traxx/4, ICH Traxx/5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced maximum 6 in. o.c. at the supports. The deck side laps are secured with Stitch Teks 1, ICH Traxx/1 or Hilti S-SLC 01 M HWH fasteners spaced maximum 24 in. o.c.
OR
Min. 20 gauge, Grade 80, 1.5 in. deep, Type B-WR steel roof deck secured to minimum 0.25 in. thick structural supports spaced maximum 6 ft. o.c. with Teks 4, Teks 5, ICH Traxx/4, ICH Traxx/5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced maximum 6 in. o.c. at the supports. The deck side laps are secured with Stitch Teks 1, ICH Traxx/1 or Hilti S-SLC 01 M HWH fasteners spaced maximum 24 in. o.c.
OR
Min. 18 gauge, Grade 33, 1.5 in. deep, Type B-WR steel roof deck secured to minimum 0.25 in. thick structural supports spaced maximum 4.5 ft. o.c. with Teks 4, Teks 5, ICH Traxx/4, ICH Traxx/5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced maximum 6 in. o.c. at the supports. The deck side laps are secured with Stitch Teks 1, ICH Traxx/1 or Hilti S-SLC 01 M HWH fasteners spaced maximum 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type D(7): Insulation is loose laid with preliminary attachment to roof deck. Membrane is subsequently mechanically fastened through 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, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of the following insulations.

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
FescoBoard		
Minimum 0.75" thick	**N/A**	**N/A**
Retro-Fit Board, Structodek® High Density Fiber Board Roof Insulation, H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation		
Minimum 0.5" thick	**N/A**	**N/A**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

Note: Insulation layer is preliminarily attached through the optional thermal barrier (when present) into the steel deck 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.

Membrane: Flex TPO II mechanically attached to deck with OMG 2-3/8" Barbed XHD Plates or with the OMG Eyehook Accuseam Plates and the #15 Roofgrip fasteners spaced maximum 6 in. o.c. within laps spaced at maximum 114. in. o.c. Laps are minimum 6 in. wide and sealed with a minimum 1-1/2" 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)

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 gauge, Grade 64, Type B, G-90 steel deck secured to structural supports spaced maximum 6 ft. o.c. with 5/8" diameter puddle welds spaced maximum 6 in. o.c. The deck side laps are secured with ¼-14 x 7/8" HWH spaced maximum 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type D(8): All insulation is loose laid with preliminary attachment to roof deck. Membrane is subsequently mechanically fastened through 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.

One or more layers of any of the following insulations.

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
FescoBoard		
Minimum 0.75" thick	**N/A**	**N/A**
Retro-Fit Board, Structodek® High Density Fiber Board Roof Insulation, H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation		
Minimum 0.5" thick	**N/A**	**N/A**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

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.

Membrane: Flex TPO II mechanically attached to the deck per fastening options below. Membrane side laps are minimum 6 in. wide and sealed with minimum 1-1/2" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

Fastening: Membrane attached with Polymer GypTec Plate 2" with barbs, OMG Eyehook Accuseam Plates or OMG 2-3/8" Barbed XHD Plates and #15 Roofgrip fasteners spaced maximum 6 in. o.c. within laps spaced at maximum 114 in. o.c.

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

Membrane Type:	TPO
Deck Type 2I:	Steel, Insulated
Deck Description:	Minimum 22 gauge, Grade 55, Type B, G-90 steel deck secured to structural supports spaced maximum 6 ft. o.c. with 5/8" diameter puddle welds spaced maximum 6 in. o.c. The deck side laps are secured with ¼-14 x 7/8" HWH spaced maximum 24 in. o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
System Type D(9):	All insulation is loose laid with preliminary attachment to roof deck. Membrane is subsequently mechanically fastened through 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.

One or more layers of any of the following insulations.

Base Insulation Layer(s)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
FescoBoard		
Minimum 0.75" thick	**N/A**	**N/A**
Retro-Fit Board, Structodek® High Density Fiber Board Roof Insulation, H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation		
Minimum 0.5" thick	**N/A**	**N/A**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

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.

Membrane:	Flex TPO II mechanically attached to the deck per fastening options below. Membrane side laps are minimum 6 in. wide and sealed with minimum 1-1/2" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
Fastening:	Membrane attached with OMG 2-3/8" Barbed XHD Plates and #15 Roofgrip fasteners spaced maximum 6 in. o.c. within laps spaced at maximum 90 in. o.c.
Maximum Design Pressure:	-60 psf. (See General Limitation #7)

Membrane Type:	TPO
Deck Type 2I:	Steel, Insulated
Deck Description:	Minimum 22 gauge, Grade 82.2, Type B, G-90 steel deck secured to structural supports spaced maximum 6 ft. o.c. with 5/8" diameter puddle welds spaced maximum 6 in. o.c. The deck side laps are secured with ¼-14 x 7/8" HWH spaced maximum 24 in. o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
System Type D(10):	All insulation is loose laid with preliminary attachment to roof deck. Membrane is subsequently mechanically fastened through 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.

One or more layers of any of the following insulations.

Base Insulation Layer(s)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
FescoBoard		
Minimum 0.75" thick	**N/A**	**N/A**
Retro-Fit Board, Structodek® High Density Fiber Board Roof Insulation, H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation		
Minimum 0.5" thick	**N/A**	**N/A**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

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.

Membrane:	Flex TPO II mechanically attached to the deck per fastening options below. Membrane side laps are minimum 6 in. wide and sealed with minimum 1-1/2" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
Fastening:	Membrane attached with OMG 2-3/4" Super XHD Barbed Plates and #15 Roofgrip fasteners spaced maximum 6 in. o.c. within laps spaced at maximum 114 in. o.c.
Maximum Design Pressure:	-67.5 psf. (See General Limitation #7)

Membrane Type:	TPO
Deck Type 2I:	Steel, Insulated
Deck Description:	Minimum 22 gauge, Grade 80, Type B, G-90 steel deck secured to structural supports spaced maximum 6 ft. o.c. with 5/8" diameter puddle welds, ITW Buildex Traxx/5, Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced maximum 6 in. o.c. The deck side laps are secured with ¼-14 x 7/8" HWH, ITW Buildex Traxx/1 or Hilti S-SLC 01 M HWH fasteners spaced maximum 24 in. o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
System Type D(11):	All insulation is loose laid with preliminary attachment to roof deck. Membrane is subsequently mechanically fastened through 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.

One or more layers of any of the following insulations.

Base Insulation Layer(s)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
FescoBoard		
Minimum 0.75" thick	**N/A**	**N/A**
Retro-Fit Board, Structodek® High Density Fiber Board Roof Insulation, H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation		
Minimum 0.5" thick	**N/A**	**N/A**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

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.

Membrane:	Flex TPO II mechanically attached to deck with OMG 2-3/4" Super XHD Barbed Plates and OMG Super XHD fasteners spaced maximum 12 in. o.c. within membrane side laps spaced at maximum 114 in. o.c. The membrane side laps are minimum 6 in. wide and sealed with minimum 1-1/2" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
Maximum Design Pressure:	-45 psf. (See General limitation #7)

Membrane Type:	TPO
Deck Type 2I:	Steel, Insulated
Deck Description:	Minimum 20 gauge, Grade 33, Type B, G-90 steel deck secured to structural supports spaced maximum 6 ft. o.c. with 5/8" diameter puddle welds spaced maximum 6 in. o.c. The deck side laps are secured with ¼-14 x 7/8" HWH spaced maximum 24 in. o.c.
	This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.
System Type D(12):	All insulation is loose laid with preliminary attachment to roof deck. Membrane is subsequently mechanically fastened through 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.

One or more layers of any of the following insulations.

Base Insulation Layer(s)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
FescoBoard Minimum 0.75" thick	**N/A**	**N/A**
Retro-Fit Board, Structodek® High Density Fiber Board Roof Insulation, H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation Minimum 0.5" thick	**N/A**	**N/A**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board Minimum 0.25" thick		

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.

Membrane:	Flex TPO II mechanically attached to deck with OMG 2-3/4" Super XHD Barbed Plates and #15 Roofgrip fasteners spaced maximum 12 in. o.c. within membrane side laps spaced at maximum 90 in. o.c. The membrane side laps are minimum 6 in. wide and sealed with minimum 1-1/2" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
Maximum Design Pressure:	-45 psf. (See General limitation #7)

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 gauge, Grade 33, Type B, G-90 steel deck secured to structural supports spaced maximum 6 ft. o.c. with 5/8" diameter puddle welds spaced maximum 6 in. o.c. The deck side laps are secured with #12-14 x 7/8" HWH spaced maximum 24 in. o.c.
OR
Minimum 22 gauge, Grade 33, Type B, G-90 steel deck secured to structural supports spaced maximum 6 ft. o.c. with Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced maximum 6 in. o.c. The deck side laps are secured with Hilti S-SLC 01 M HWH fasteners spaced maximum 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type D(13): All insulation is loose laid with preliminary attachment to roof deck. Membrane is subsequently mechanically fastened through 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, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of any of the following insulations.

Base Insulation Layer(s)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
FescoBoard		
Minimum 0.75" thick	**N/A**	**N/A**
Retro-Fit Board, Structodek® High Density Fiber Board Roof Insulation, H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation		
Minimum 0.5" thick	**N/A**	**N/A**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board		
Minimum 0.25" thick		

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.

Membrane: Flex TPO II mechanically attached to deck per fastening options below. Membrane side laps are minimum 6 in. wide and sealed with minimum 1-1/2" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

Fastening Option #1: Membrane attached with OMG 2-3/4" Super XHD Barbed Plates and #15 Roofgrip fasteners spaced maximum 12 in. o.c. within membrane side laps spaced at maximum 66 in. o.c.
Maximum Design Pressure: -52.5 psf (See General Limitation #7)

Fastening Option #2: Membrane attached with OMG 2-3/4" Super XHD Barbed Plates and #15 Roofgrip fasteners spaced maximum 12 in. o.c. within membrane side laps spaced at maximum 54 in. o.c.
Maximum Design Pressure: -60 psf (See General Limitation #7)

Maximum Design Pressure: See Fastening Options above.

Membrane Type:	TPO
Deck Type 2I:	Steel, Insulated
Deck Description:	Minimum 22 gauge, Grade 33, Type B, G-90 steel deck secured to structural supports spaced maximum 6 ft. o.c. with 5/8" diameter puddle welds spaced maximum 6 in. o.c. The deck side laps are secured with #12-14 x 7/8" HWH spaced maximum 24 in. o.c.
	This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.
System Type D(14):	All insulation is loose laid with preliminary attachment to roof deck. Membrane is subsequently mechanically fastened through 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, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of any of the following insulations.

Base Insulation Layer(s)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
FescoBoard Minimum 0.75" thick	**N/A**	**N/A**
Retro-Fit Board, Structodek® High Density Fiber Board Roof Insulation, H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation Minimum 0.5" thick	**N/A**	**N/A**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board Minimum 0.25" thick		

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.

Membrane:	Flex TPO II mechanically attached to deck per fastening options below. Membrane side laps are minimum 6 in. wide and sealed with minimum 1-1/2" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.
Fastening:	Membrane attached with Polymer GypTec Plate 2" with barbs and #15 Roofgrip fasteners spaced maximum 12 in. o.c. within membrane side laps spaced at maximum 54 in. o.c.
Maximum Design Pressure:	-45 psf. (See General limitation #7)

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 gauge, Grade 33, Type B, G-90 steel deck secured to structural supports spaced maximum 6 ft. o.c. with Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced maximum 6 in. o.c. The deck side laps are secured with Hilti S-SLC 01 M HWH fasteners spaced maximum 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type D(15): All insulation is loose laid with preliminary attachment to roof deck. Membrane is subsequently mechanically fastened through 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, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
FescoBoard		
Minimum 0.75" thick	**N/A**	**N/A**
Retro-Fit Board, Structodek® High Density Fiber Board Roof Insulation, H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation		
Minimum 0.5" thick	**N/A**	**N/A**
DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board		
Minimum 0.25" thick		

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.

Membrane: Flex TPO II mechanically attached to deck per fastening option below. Membrane side laps are minimum 6 in. wide and sealed with minimum 1-1/2" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

Fastening: Membrane attached with Polymer GypTec Plate 2" with barbs and #15 Roofgrip fasteners spaced maximum 12 in. o.c. within membrane side laps spaced at maximum 54 in. o.c.

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

Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 gauge, Grade 33, Type B, G-90 steel deck secured to structural supports spaced maximum 6 ft. o.c. with Hilti X-HSN 24 or Hilti X-ENP-19 L15 fasteners spaced maximum 6 in. o.c. The deck side laps are secured with Hilti S-SLC 01 M HWH fasteners spaced maximum 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type D(16): All insulation is loose laid with preliminary attachment to roof deck. Membrane is subsequently mechanically fastened through 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, ½" SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board or 3/4" FescoBoard loose laid on steel deck.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Flex EG Polyiso, ACFoam-II, H-Shield, ENRGY 3, EnergyGuard™ Ultra Polyiso Insulation		
Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
H-Shield HD, EnergyGuard™ HD Polyiso Insulation, EnergyGuard™ HD Plus Polyiso Insulation		
Minimum 0.5" thick	**N/A**	**N/A**
SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board		
Minimum 0.25" thick		

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.

Membrane: Flex TPO II mechanically attached to deck per fastening options below. Membrane side laps are minimum 6 in. wide and sealed with minimum 1-1/2" wide heat welds for automatic machine welding. Weld width shall be minimum 2" for hand welding.

Fastening: Membrane attached with Polymer GypTec Plate 2" with barbs and #15 Roogrip fasteners spaced maximum 12 in. o.c. within membrane side laps spaced at maximum 66 in. o.c.

Maximum Design Pressure: -45 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 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE