



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

NOTICE OF ACCEPTANCE (NOA)

**MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION**

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www.miamidade.gov/economy

Tremco CPG, Inc.
3735 Green Road
Beachwood, OH 44122

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: TremPly TPO Single Ply Roofing Systems over Concrete Decks.

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

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

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

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

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

This NOA revises NOA# 18-0119.04 and consists of pages 1 through 38.

The submitted documentation was reviewed by Alex Tigera.



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ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Single Ply Roofing
Material: TPO
Deck Type: Concrete
Maximum Design Pressure: -502.5 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
TremPly TPO	Various	ASTM D 6878 TAS 131	Thermoplastic olefin reinforced single-ply membrane.
TremPly Max TPO	Various	ASTM D6878 TAS 131	Thermoplastic olefin reinforced single-ply membrane designed for advanced protection against heat aging and UV degradation.
TremPly TPO FB	Various	ASTM D 6878 TAS 131	Thermoplastic olefin reinforced, fleece back single-ply membrane
TremPly Max TPO FB	Various	ASTM D6878 TAS 131	Thermoplastic olefin reinforced fleece back single-ply membrane designed for advanced protection against heat aging and UV degradation.
TremPly Bonding Adhesive	5 gallons	Proprietary	Solvent based adhesive for fully adhered TPO systems and membrane flashing.
TremPly WB Bonding Adhesive	5 gallons	Proprietary	Water-based bonding adhesive for use with smooth TPO, fleece backed TPO and fleece backed PVC membranes.
Tremco Low Rise Foam Insulation Adhesive (BG), Tremco LR Adhesive	1:1 applicator	Proprietary	Two-part VOC free polyurethane foam adhesive.
Tremco Low Rise Foam Insulation Adhesive	1:1 applicator	Proprietary	Two-part VOC free polyurethane foam adhesive.
TremPly TPO LV Bonding Adhesive	5 gallons	Proprietary	Low VOC adhesive for TPO fully adhered systems and flashings.
TremPly TPO Cover Tape	6" x 100' 10" x 100'	Proprietary	Tremco TPO laminated to white butyl tape primarily used for edge metal details.



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TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
TremPly TPO Cover Tape Heat-Welded	6" x 100'	Proprietary	Flashing strip manufactured from unreinforced Tremco TPO laminated to a six inch wide strip, half the strip with a self-adhered side and half the strip with a heat-weldable edge; used for edge metal details.
TremPly Max TPO Cover Tape Heat-Welded	6" x 100'	Proprietary	Flashing strip manufactured from unreinforced Tremco TPO designed for advanced protection against heat aging and UV degradation. Laminated to a six inch wide strip, half the strip with a self-adhered side and half the strip with a heat-weldable edge; used for edge metal details.
TremPly TPO Detailing Membrane	24" x 50'	Proprietary	Unreinforced flashing material manufactured from Tremco TPO.
TremPly Max TPO Detailing Membrane	24" x 50'	Proprietary	Unreinforced flashing material manufactured from Tremco TPO designed for advanced protection against heat aging and UV degradation.
TremPly TPO Flashing Strip	Various	Proprietary	Reinforced flashing membrane manufactured from Tremco TPO.
TremPly Max TPO Flashing Strip	Various	Proprietary	Reinforced flashing membrane manufactured from Tremco TPO designed for advanced protection against heat aging and UV degradation.
TremPly TPO Pourable Sealer Pocket	9" x 6" x 4" oval with 3" base flange	Proprietary	Pourable sealer pocket is molded with Tremco TPO compound to a nominal 70 mil thickness designed for waterproofing irregular shaped roof penetrations.
TremPly Max TPO Pourable Sealer Pocket	9" x 6" x 4" oval with 3" base flange	Proprietary	Pourable sealer pocket is molded from Tremco TPO designed for advanced protection against heat aging and UV degradation compounded to a nominal 70 mil thickness designed for waterproofing irregular shaped roof penetrations.



TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
TremPly TPO RTA (Roof Transition Anchor) Strip™	6" x 100' roll	Proprietary	Reinforced Tremco TPO membrane with pressure sensitive adhesive primarily used to secure membrane transitions from the field to vertical surfaces.
TremPly TPO Split Pipe Boot	1" - 2" 3" - 5" 6" - 8" 9" - 11"	Proprietary	Reinforced Tremco TPO membrane split to accommodate most common pipes and conduits.
TremPly Max TPO Split Pipe Boot	1" - 2" 3" - 5" 6" - 8"	Proprietary	Reinforced Tremco TPO designed for advanced protection against heat aging and UV degradation split to accommodate most common pipes and conduits.
TremPly TPO Square Tube Wrap	4" x 4" 4" x 6" 6" x 6"	Proprietary	Reinforced Tremco TPO with split design overlap to be wrapped around square or rectangular tubing.
TremPly Max TPO Square Tube Wrap	4" x 4" 4" x 6" 6" x 6"	Proprietary	Reinforced Tremco TPO designed for advanced protection against heat aging and UV degradation with split design overlap to be wrapped around square or rectangular tubing.
TremPly TPO Corner Curb Wrap	Various	Proprietary	Corners fabricated from reinforced Tremco TPO.
TremPly Max TPO Corner Curb Wrap	Various	Proprietary	Corners fabricated from reinforced Tremco TPO designed for advanced protection against heat aging and UV degradation.
TremPly TPO T-Joint Cover Patch	100 patches per box	Proprietary	T-Joint patch manufactured from unreinforced Tremco TPO.
TremPly Max TPO T-Joint Cover Patch	100 patches per box	Proprietary	T- Joint patch manufactured from unreinforced Tremco TPO designed for advanced protection against heat aging and UV degradation.
TremPly TPO Walkway Rolls	Rolls 1/8"x30"x50'	Proprietary	Standard duty TPO walkway rolls.



TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
TremPly TPO Inside Corners	6" x 6" x 5¼"	Proprietary	Inside corner manufactured from unreinforced Tremco TPO.
TremPly Max TPO Inside Corner	6" x 6" x 5¼"	Proprietary	Inside corner manufactured from unreinforced Tremco TPO designed for advanced protection against heat aging and UV degradation.
TremPly TPO Universal Corners	Various	Proprietary	Universal corners manufactured from Tremco TPO that are heat seamable and designed to accommodate both inside and outside corners of base and curb flashings.
TremPly Max TPO Universal Corners	Various	Proprietary	Universal corners manufactured from Tremco TPO designed for advanced protection against heat aging and UV degradation are heat seamable and designed to accommodate both inside and outside corners of base and curb flashings.
TremPly TPO Vent Boot	1" - 6" o.d. 6 pcs. Crtn.	Proprietary	Vent pipe boot molded from Tremco TPO and supplied with stainless steel clamping rings.
TremPly Max TPO Vent Boot	1" - 6" o.d. 6 pcs. Crtn.	Proprietary	Vent pipe boot molded from Tremco TPO designed for advanced protection against heat aging and UV degradation and supplied with stainless steel clamping rings.
TremPly TPO Expansion Joint Cover	Various	Proprietary	Low profile joint cover manufactured from reinforced Tremco TPO.
TremPly TPO Fluted Corner	8" diameter nominal .05" non-reinforced	Proprietary	Flashing for outside corners of base and curb flashing manufactured from non-reinforced Tremco TPO.
TremPly Max TPO Fluted Corner	8" diameter nominal .05" non-reinforced	Proprietary	Flashing for outside corners of base and curb flashing manufactured from non-reinforced Tremco TPO designed for advanced protection against heat aging and UV degradation.
TremPly TPO Cut Edge Sealant	1 quart squeeze tube	Proprietary	Clear solvent based sealant for TPO cut edges.



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

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
TremPly Cut Edge Sealant LV	1 quart squeeze tube	Proprietary	Low VOC clear solvent based sealant for TPO cut edges.
TremPly TPO Drain	Various	Proprietary	Spun aluminum drain pre-flashed with unreinforced Tremco TPO.
TremPly TPO Seam Cleaner	1 gallon	Proprietary	Solvent based seam cleaner.
TremPly TPO Primer	1 gallon	Proprietary	Solvent-based VOC compliant TPO primer.
TremPly LV TPO Primer	1 gallon	Proprietary	Low VOC TPO primer



APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ISO 95+ GL	Polyisocyanurate foam insulation	Firestone Building Products Company, LLC
ISO 95+ GL Tapered	Polyisocyanurate foam insulation	Firestone Building Products Company, LLC
ACFoam-II	Polyisocyanurate foam insulation	Atlas Roofing Corporation
ACFoam-II Tapered	Polyisocyanurate foam insulation	Atlas Roofing Corporation
H-Shield	Polyisocyanurate foam insulation	Hunter Panels, LLC
H-Shield Tapered	Polyisocyanurate foam insulation	Hunter Panels, LLC
H-Shield HD	High density polyisocyanurate foam insulation	Hunter Panels, LLC
ENRGY 3	Polyisocyanurate foam insulation	Johns Manville Corp.
ENRGY 3 Tapered	Polyisocyanurate foam insulation	Johns Manville Corp.
SECUROCK® Gypsum-Fiber Roof Board	Gypsum roof board	United States Gypsum Corp.
SECUROCK® Glass-Mat Roof Board	Gypsum board	United States Gypsum Corp.
DensDeck® Roof Board	Gypsum board	Georgia-Pacific Gypsum LLC
DensDeck® Prime Roof Board	Gypsum board	Georgia-Pacific Gypsum LLC
Structodek® High Density Fiberboard Roof Insulation	High-density fiberboard	Blue Ridge FiberBoard, Inc.



APPROVED FASTENERS:

TABLE 3

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
1.	#14 Roofgrip	Carbon steel fastener used in steel, wood or concrete decks.	various	OMG, Inc.
2.	OMG 2-3/8" Barbed XHD Plate	Round galvanized steel stress plates for use with OMG fasteners.	2-3/8 in. dia.	OMG, Inc.
3.	OMG 2 in. Barbed Plate	Round galvanized steel stress plates for use with OMG fasteners.	2 in. dia.	OMG, Inc.
4.	OMG 2-3/4" Super XHD Barbed Plate	Round galvanized steel stress plates for use with OMG fasteners.	2-3/4 in. dia.	OMG, Inc.
5.	3 in. Round Metal Plate	Round galvalume steel stress plate for use with OMG fasteners.	3"	OMG, Inc.
6.	OMG Eyehook Accuseam Plate	Round Galvalume® steel stress plate for use with OMG fasteners.	2-3/8" Round	OMG, Inc.
7.	RhinoBond Insulation Plate (TPO & PVC)	Gold primer coated plate for use with TPO membranes.	3" Round	OMG, Inc.
8.	RhinoBond TreadSafe Plate (TPO & PVC)	Round, coated Galvalume® plate (Gold primer coating) used for TPO membranes.	3" Round	OMG, Inc.



EVIDENCE SUBMITTED:

<u>Test Agency/Identifier</u>	<u>Name</u>	<u>Report</u>	<u>Date</u>
UL LLC	R10689	UL 790	03/14/13
	R1306	UL 790	05/22/13
	09CA55838	Physical Properties	12/04/10
Exterior Research and Design, LLC.	01881.09.03-2	TAS 114	09/09/03
Trinity ERD	G43180.03.14	ASTM D6164	03/03/14
	GAF-SC9700.08.15-R1	ASTM D2178	09/09/15
	GAF-SC13285.03.17-5	ASTM D6164	03/23/17
Atlantic & Caribbean Roof Consulting, LLC	07-027	TAS 114	05/04/07
	06-035	TAS 114	10/18/06
	11-002	TAS 114	03/21/11
	11-003	TAS 114	03/21/11
	11-012	TAS 114	04/06/11
	11-013	TAS 114	04/06/11
	11-014	TAS 114	04/06/11
	11-041	TAS 114	09/05/11
	11-047	TAS 114	09/09/11
	12-008	TAS 114	04/10/12
	12-019	TAS 114	04/25/12
	12-024	TAS 114	05/09/12
	12-025	TAS 114	05/09/12
FM Approvals	3003617	FM 4470	12/20/99
	3011140	FM 4470	08/14/01
	3012721	FM 4470	02/11/04
	3013788	FM 4470	01/10/03
	3013861	FM 4470	03/28/03
	3014692	FM 4470	08/05/03
	3015029	FM 4470	02/19/04
	3015578	FM 4470	05/12/04
	3016688	FM 4470	01/07/04
	3023458	FM 4470	07/18/06
	3024051	FM 4470	03/28/06
	3031350	FM 4470	09/27/07
	3032856	FM 4470	11/24/08
	3036141	FM 4470	08/10/09
	3038318	FM 4470	12/10/10
	3041535	FM 4470	06/08/11
	3041685	FM 4470	03/24/11
	3041769	FM 4470	05/26/11
	3044862	FM 4470	05/11/12
	3046328	FM 4470	09/13/12
	3047636	FM 4470	08/08/13
	3053501	FM 4470	01/14/16
FM Approvals	3056822	FM 4470	11/14/16

MIAMI-DADE COUNTY
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<u>Test Agency/Identifier</u>	<u>Name</u>	<u>Report</u>	<u>Date</u>
	3058483	FM 4470	12/09/16
	3060615	FM 4470	01/23/17
	797-09497-267	FM 4470	05/16/14
	RR200835	FM 4470	04/17/15
	RR201963	FM 4470	07/22/15
	RR205231	FM 4470	05/09/16
	RR205474	FM 4470	05/25/16
	RR206620	FM 4470	09/12/16
	FM Letter	FM 4470	09/21/16
	FM Letter	FM 4470	12/06/11
	FM Letter	FM 4470	12/14/17
PRI Construction Materials Technologies LLC	GAF-245-02-01	ASTM D6083	06/10/10
	GAF-276-02-01REV	ASTM D6083	01/03/11
	GAF-289-02-01	ASTM D6878/TAS 131	09/07/11
	GAF-290-02-01	ASTM D6878/TAS 131	09/21/11
	GAF-314-02-01	ASTM D2178	08/23/11
	GAF-315-02-01	ASTM D2178	08/23/11
	GAF-344-02-01	ASTM D1970	04/23/12
	GAF-369-02-01	ASTM C1289	10/22/12
	GAF-411-02-01	ASTM C1289	04/30/13
	GAF-412-02-01	ASTM C1289	04/30/13
	GAF-417-02-01	ASTM C1289	05/27/13
	GAF-421-02-01	ASTM D6878/TAS 131	10/21/13
	GAF-422-02-01	ASTM D6878/TAS 131	10/29/13
	GAF-424-02-01	ASTM D6878/TAS 131	11/08/13
	GAF-425-02-01	ASTM D6878/TAS 131	11/08/13
	GAF-464-02-01	ASTM C1289	02/05/14
	GAF-499-02-01	ASTM D6083	05/18/16
	GAF-500-02-01	ASTM D6083	05/18/16
	GAF-508-02-01	ASTM D1475	03/11/14
	GAF-540-02-02	TAS 114	08/06/14
	GAF-540-02-03	TAS 114	08/06/14
	GAF-540-02-04	TAS 114	08/06/14
	GAF-584-02-01	ASTM D6878/TAS 131	12/07/15
	GAF-585-02-01	ASTM D6878/TAS 131	12/07/15
	GAF-586-02-01	ASTM D6878/TAS 131	12/07/15
	GAF-671-02-01	TAS 139	06/30/16
	GAF-704-02-01	ASTM C1289	09/22/16
	GAF-706-02-01	ASTM C1289	09/22/16
	GAF-707-02-01	ASTM C1289	09/22/16
	GAF-714-02-01	ASTM C1289	11/09/16
	GAF-760-02-01	ASTM C1289	05/15/17
	GAF-769-02-01	ASTM C1289	03/21/18
	GAF-772-02-01	ASTM C1289	08/01/17
	GAF-774-02-01	ASTM C1289	09/27/17
	GAF-786-02-01	ASTM C1289	10/30/17

APPROVED ASSEMBLIES:

Membrane Type: TPO

Deck Type 3I: Concrete, Insulated

Deck Description: 2500 psi structural concrete

System Type A(1): Membrane adhered to adhered 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 each of the following insulations.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ISO 95+ GL, H-Shield Minimum 2" thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK® Gypsum-Fiber Roof Board Minimum ¼" thick	N/A	N/A

Note: Each layer of insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs./100 ft².

OR

If the optional vapor barrier is not present then the insulation may be adhered with OlyBond 500® or OlyBond 500® Green Adhesive Fastener in ¾" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: TremPly TPO or TremPly Max TPO adhered to SECUROCK® Gypsum-Fiber Roof Board with TremPly Bonding Adhesive applied at a total rate of 1.67 gal./sq. per manufacturer's instructions, half of the adhesive is applied to the substrate and the other half is applied to the back surface of the roof cover. The 3" side laps are sealed with a 1.5" wide heat weld for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The top surface is broomed and is rolled with a water filled roller weighing a minimum of 250 lbs.

OR

TremPly TPO or TremPly Max TPO adhered to SECUROCK® Gypsum-Fiber Roof Board with TremPly TPO LV Bonding Adhesive applied at 0.91 gal./sq. per manufacturer's instructions, half of the adhesive is applied to the substrate and the other half is applied to the back surface of the roof cover. The 3" side laps are sealed with a 1.5" wide heat weld for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The top surface is broomed and is rolled with a water filled roller weighing a minimum of 250 lbs.

Maximum Design

Pressure: -247.5 psf. (See General Limitation #9)



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Membrane Type: TPO

Deck Type 3I: Concrete, Insulated

Deck Description: 3000 psi structural concrete

System Type A(2): Membrane adhered to adhered 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 each of the following insulations.

<u>Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
ACFoam-II Minimum 1" thick	N/A	N/A

Note: Each layer of insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs./100 ft².

OR

If the optional vapor barrier is not present then the insulation is adhered to the deck using Olybond 500® or Olybond 500® Green applied in 1" wide beads spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: One ply of TremPly TPO or TremPly Max TPO adhered to the insulation with TremPly Bonding Adhesive applied at a total rate of 1.67 gal./sq. half applied to the insulation and half applied to the underside of the membrane. The laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

Or

One ply of TremPly TPO or TremPly Max TPO adhered to insulation with TremPly TPO LV Bonding Adhesive applied at a total rate of 0.91 gal./sq. Apply half the adhesive to the insulation and half to the underside of the membrane. The laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

Maximum Design

Pressure: -502.5 psf. (See General limitation #9)



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Membrane Type: TPO

Deck Type 3I: Concrete, Insulated

Deck Description: 3000 psi structural concrete

System Type A(3): Membrane adhered to adhered 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 each of the following insulations.

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ISO 95+ GL, H-Shield, ENRGY 3 Minimum 1" thick	N/A	N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: One ply of TremPly TPO FB or TremPly Max TPO FB fully adhered in approved asphalt at an application rate of 20-40 lbs./sq. The laps are heat-welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

Maximum Design Pressure: -187.5 psf. (See General limitation #9)



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Membrane Type: TPO

Deck Type 3I: Concrete, Insulated

Deck Description: 3000 psi structural concrete

System Type A(4): Membrane adhered to adhered 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 each of the following insulations.

<u>Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
H-Shield Minimum 1" thick	N/A	N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-25 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: One ply of TremPly TPO FB or TremPly Max TPO FB fully adhered in approved asphalt at an application rate of 20-25 lbs./sq. The laps are heat-welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

Maximum Design Pressure: -470 psf. (See General limitation #9)



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Membrane Type: TPO
Deck Type 3I: Concrete, Insulated
Deck Description: 2500 psi structural concrete
System Type A(5): Membrane adhered to adhered 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 each of the following insulations.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
H-Shield Minimum 1" thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK[®] Gypsum-Fiber Roof Board Minimum 1/4" thick	N/A	N/A

Note: Each layer of insulation shall be adhered with OlyBond 500[®] or OlyBond 500[®] Green in 1" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: TremPly TPO or TremPly Max TPO adhered to SECUROCK[®] Gypsum-Fiber Roof Board with TremPly TPO LV Bonding Adhesive applied at 0.91 gal./sq. Half of the adhesive is applied to the substrate and the other half is applied to the back surface of the roof cover. The top surface is then broomed and rolled with a weighted roller. The laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

Maximum Design Pressure: -502.5 psf. (See General limitation #9)



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Membrane Type: TPO
Deck Type 3I: Concrete, Insulated
Deck Description: 2500 psi structural concrete
System Type A(6): Membrane adhered to adhered 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 each of the following insulations.

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK® Gypsum-Fiber Roof Board Minimum 1/4" thick	N/A	N/A

Note: Insulation shall be adhered to the deck with Tremco Low Rise Foam Insulation Adhesive (BG) or Tremco LR Adhesive in 1" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: TremPly TPO or TremPly Max TPO adhered to SECUROCK® Gypsum-Fiber Roof Board with TremPly WB Bonding Adhesive is roller applied to the underside of the membrane and to the substrate at a combined 0.84 gal./sq. The adhesive is allowed to become tacky to touch and the roof cover is applied to the substrate. The laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250lbs.

Maximum Design Pressure: -112.5 psf. (See General limitation #9)



Membrane Type: TPO
Deck Type 3I: Concrete, Insulated
Deck Description: 2500 psi structural concrete
System Type A(7): Membrane adhered to adhered 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 each of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, ISO 95+ GL Tapered Minimum 0.5" thick	N/A	N/A

Note: Insulation shall be adhered to the deck with OlyBond 500® or OlyBond 500® Green in 0.75" - 1" ribbons spaced 12"o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. The base layer or top layer of insulation of multi-layer constructions may be either tapered or flat profiled. Intermediate layers of insulation (when present) are flat profiled.

Membrane: TremPly TPO or TremPly Max TPO adhered with TremPly WB Bonding Adhesive is roller applied at a total rate of 0.84 gal./sq. One quarter of the adhesive is applied to the back of the roof cover and three quarters of the adhesive is applied to the substrate.
OR
TremPly TPO or TremPly Max TPO adhered with TremPly Bonding Adhesive rolled applied to both the substrate surface and the underside of the membrane at a rate of 1.67 gal./sq. total. The top surface is then broomed and rolled with a weighted roller.
OR
TremPly TPO FB or TremPly Max TPO FB is fully adhered to with TremPly WB Bonding Adhesive applied to the substrate at the rate of 0.84 gallons per square. Then the fleece back membrane is rolled into the wet adhesive. Laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

Maximum Design Pressure: -292.5 psf. (See General Limitation #9)



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Membrane Type: TPO
Deck Type 3I: Concrete, Insulated
Deck Description: 2500 psi structural concrete
System Type A(8): Membrane adhered to adhered 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 each of the following insulations.

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ISO 95+ GL, ISO 95+ GL Tapered Minimum 0.5" thick	N/A	N/A

Note: Insulation shall be adhered to the deck with OlyBond 500® or OlyBond 500® Green in 0.75" - 1" ribbons spaced 12"o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. The base layer or top layer of insulation of multi-layer constructions may be either tapered or flat profiled. Intermediate layers of insulation (when present) are flat profiled.

Membrane: TremPly TPO or TremPly Max TPO adhered with TremPly TPO LV Bonding Adhesive applied at a total rate of 0.91 gal./sq. Apply half the adhesive to the insulation and half to the underside of the membrane.

Maximum Design Pressure: -240 psf. (See General Limitation #9)



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Membrane Type: TPO
Deck Type 3I: Concrete, Insulated
Deck Description: 2500 psi structural concrete
System Type A(9): Membrane adhered to adhered 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 each of the following insulations.

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ISO 95+ GL, ISO 95+ GL Tapered Minimum 0.5" thick	N/A	N/A

Note: Insulation shall be adhered to the deck with Tremco Low Rise Foam Insulation Adhesive (BG), Tremco LR Adhesive or Millennium One-Step Foamable Adhesive in 0.75" - 1" ribbons spaced 12"o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. The base layer or top layer of insulation of multi-layer constructions may be either tapered or flat profiled. Intermediate layers of insulation (when present) are flat profiled.

Membrane: TremPly TPO or TremPly Max TPO adhered with TremPly WB Bonding Adhesive is roller applied at a total rate of 0.84 gal./sq. One quarter of the adhesive is applied to the back of the roof cover and three quarters of the adhesive is applied to the substrate.
OR
TremPly TPO or TremPly Max TPO adhered with TremPly Bonding Adhesive rolled applied to both the substrate surface and the underside of the membrane at a rate of 1.67 gal./sq. total. The top surface is then broomed and rolled with a weighted roller.
OR
TremPly TPO or TremPly Max TPO adhered with TremPly TPO LV Bonding Adhesive applied at a total rate of 0.91 gal./sq. Apply half the adhesive to the insulation and half to the underside of the membrane.
OR
TremPly TPO FB or TremPly Max TPO FB adhered with TremPly WB Bonding Adhesive applied to the substrate at the rate of 0.84 gallons per square. Then the fleece back membrane is rolled into the wet adhesive.

Laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

Maximum Design Pressure: -232.5 psf. (See General Limitation #9)



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Membrane Type: TPO
Deck Type 3I: Concrete, Insulated
Deck Description: 2500 psi structural concrete
System Type A(10): Membrane adhered to adhered 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 each of the following insulations.

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ISO 95+ GL, ISO 95+ GL Tapered Minimum 0.5" thick	N/A	N/A

Note: Insulation shall be adhered to the deck with OlyBond 500® or OlyBond 500® Green in 0.75" - 1" ribbons spaced 12"o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. The base layer or top layer of insulation of multi-layer constructions may be either tapered or flat profiled. Intermediate layers of insulation (when present) are flat profiled.

Membrane: TremPly TPO FB or TremPly Max TPO FB adhered with Tremco Low Rise Foam Insulation Adhesive, Tremco Low Rise Foam Insulation Adhesive or Tremco LR Adhesive applied in 0.75" – 1.0" ribbons spaced 12" o.c. The laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

Maximum Design Pressure: -60 psf. (See General Limitation #9)



Membrane Type: TPO
Deck Type 3I: Concrete, Insulated
Deck Description: 2500 psi structural concrete
System Type A(11): Membrane adhered to adhered 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 each of the following insulations.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ISO 95+ GL, ISO 95+ GL Minimum 0.5" thick	N/A	N/A

Note: Insulation shall be adhered to the deck with OlyBond 500®, OlyBond 500® Green, Tremco Low Rise Foam Insulation Adhesive (BG), Tremco LR Adhesive or Millennium One-Step Foamable Adhesive in 0.75" - 1" ribbons spaced 12"o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. The base layer or top layer of insulation of multi-layer constructions may be either tapered or flat profiled. Intermediate layers of insulation (when present) are flat profiled.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK® Gypsum-Fiber Roof Board, DensDeck® Prime Roof Board Minimum 0.25" thick	N/A	N/A

Note: Insulation shall be adhered to the deck with OlyBond 500®, OlyBond 500® Green, Tremco Low Rise Foam Insulation Adhesive (BG), Tremco LR Adhesive or Millennium One-Step Foamable Adhesive in 0.75" - 1" ribbons spaced 12"o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: TremPly TPO FB or TremPly Max TPO FB adhered with Tremco Low Rise Foam Insulation Adhesive or Tremco Low Rise Foam Insulation Adhesive (BG) or Tremco LR Adhesive (SECUROCK® Only) applied in 0.75" – 1.0" ribbons spaced 12" o.c. The laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

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



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Membrane Type: TPO
Deck Type 3I: Concrete, Insulated
Deck Description: 2500 psi structural concrete
System Type A(12): Membrane adhered to adhered 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 each of the following insulations.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+ GL, ISO 95+ GL Tapered Minimum 0.5" thick	N/A	N/A

Note: Insulation shall be adhered to the deck with OlyBond 500®, OlyBond 500® Green, Tremco Low Rise Foam Insulation Adhesive (BG), Tremco LR Adhesive or Millennium One-Step Foamable Adhesive in 0.75" - 1" ribbons spaced 12"o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. The base layer or top layer of insulation of multi-layer constructions may be either tapered or flat profiled. Intermediate layers of insulation (when present) are flat profiled.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
SECUROCK® Gypsum-Fiber Roof Board, DensDeck® Prime Roof Board Minimum 0.25" thick	N/A	N/A

Note: Insulation shall be adhered to the deck with OlyBond 500®, OlyBond 500® Green, Tremco Low Rise Foam Insulation Adhesive (BG), Tremco LR Adhesive or Millennium One-Step Foamable Adhesive in 0.75" - 1" ribbons spaced 12"o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.



Membrane:

TremPly TPO or TremPly Max TPO adhered with TremPly WB Bonding Adhesive is roller applied at a total rate of 0.84 gal./sq. One quarter of the adhesive is applied to the back of the roof cover and three quarters of the adhesive is applied to the substrate.

OR

TremPly TPO or TremPly Max TPO adhered with TremPly Bonding Adhesive rolled applied to both the substrate surface and the underside of the membrane at a rate of 1.67 gal./sq. total. The top surface is then broomed and rolled with a weighted roller.

OR

TremPly TPO or TremPly Max TPO adhered with TremPly TPO LV Bonding Adhesive applied at a total rate of 0.91 gal./sq. Apply half the adhesive to the insulation and half to the underside of the membrane.

OR

TremPly TPO FB or TremPly Max TPO FB adhered with TremPly WB Bonding Adhesive applied to the substrate at the rate of 0.84 gallons per square. Then the fleece back membrane is rolled into the wet adhesive.

The laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

Maximum Design**Pressure:**

-232.5 psf. (See General Limitation #9)



Membrane Type: TPO
Deck Type 3I: Concrete, Insulated
Deck Description: 2500 psi structural concrete
System Type A(13): Membrane adhered to adhered 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 each of the following insulations.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ISO 95+ GL, ISO 95+ GL Tapered Minimum 0.5" thick	N/A	N/A

Note: Insulation shall be adhered to the deck with OlyBond 500®, OlyBond 500® Green, Tremco Low Rise Foam Insulation Adhesive (BG), Tremco LR Adhesive or Millennium One-Step Foamable Adhesive in 0.75" - 1" ribbons spaced 12"o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. The base layer or top layer of insulation of multi-layer constructions may be either tapered or flat profiled. Intermediate layers of insulation (when present) are flat profiled.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Structodek® High Density Wood Fiberboard Roof Insulation Minimum 0.5" thick	N/A	N/A

Note: Insulation shall be adhered to the deck with OlyBond 500®, OlyBond 500® Green, Tremco Low Rise Foam Insulation Adhesive (BG), Tremco LR Adhesive or Millennium One-Step Foamable Adhesive in 0.75" - 1" ribbons spaced 12"o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: TremPly TPO or TremPly Max TPO adhered with TremPly Bonding Adhesive rolled applied to both the substrate surface and the underside of the membrane at a rate of 1.67 gal./sq. total. The top surface is then broomed and rolled with a weighted roller.
OR
TremPly TPO or TremPly Max TPO adhered with TremPly TPO LV Bonding Adhesive applied at a total rate of 0.91 gal./sq. Apply half the adhesive to the insulation and half to the underside of the membrane.
The laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

Maximum Design Pressure: -82.5 psf. (See General Limitation #9)



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Membrane Type: TPO
Deck Type 3I: Concrete, Insulated
Deck Description: 2500 psi structural concrete
System Type A(14): Membrane adhered to adhered 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 each of the following insulations.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ISO 95+ GL, ISO 95+ GL Tapered, H-Shield, H-Shield Tapered, ENRGY 3 or ENRGY 3 Tapered Minimum 0.5" thick	N/A	N/A

Note: Insulation shall be adhered to the deck with OlyBond 500®, OlyBond 500® Green, Tremco Low Rise Foam Insulation Adhesive (BG), Tremco LR Adhesive or Millennium One-Step Foamable Adhesive in 0.75" - 1" ribbons spaced 12"o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. The base layer or top layer of insulation of multi-layer constructions may be either tapered or flat profiled. Intermediate layers of insulation (when present) are flat profiled.

<u>Top Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK® Gypsum-Fiber Roof Board or DensDeck® Prime Roof Board Minimum 0.25" thick	N/A	N/A

Note: Insulation shall be adhered to the deck with OlyBond 500®, OlyBond 500® Green, Tremco Low Rise Foam Insulation Adhesive (BG), Tremco LR Adhesive or Millennium One-Step Foamable Adhesive in 0.75" - 1" ribbons spaced 12"o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: TremPly TPO FB or TremPly Max TPO FB adhered with Tremco Low Rise Foam Insulation Adhesive or Tremco Low Rise Foam Insulation Adhesive (BG) or Tremco LR Adhesive applied in 0.75" – 1.0" ribbons spaced 4" o.c. for full coverage.
OR
Adhered in OlyBond 500 applied in a spatter pattern at 0.318 gal./sq. The laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

Maximum Design Pressure: -180 psf. (See General Limitation #9)



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Membrane Type: TPO
Deck Type 3I: Concrete, Insulated
Deck Description: 2500 psi structural concrete
System Type A(15): Membrane adhered to adhered 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 each of the following insulations.

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK® Gypsum-Fiber Roof Board, DensDeck® Prime Roof Board Minimum 0.25" thick	N/A	N/A

Note: Insulation shall be adhered to the deck with OlyBond 500®, OlyBond 500® Green, Tremco Low Rise Foam Insulation Adhesive (BG), Tremco LR Adhesive or Millennium One-Step Foamable Adhesive in 0.75" - 1" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: TremPly TPO FB or TremPly Max TPO FB adhered with Tremco Low Rise Foam Insulation Adhesive or Tremco Low Rise Foam Insulation Adhesive (BG) or Tremco LR Adhesive applied in 0.75" – 1.0" ribbons spaced 4" o.c. for full coverage.
OR
Adhered in OlyBond 500 applied in a spatter pattern at 0.318 gal./sq. The laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

Maximum Design Pressure: -195 psf. (See General Limitation #9)



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Membrane Type: Single Ply, TPO
Deck Type 3I: Concrete Insulated
Deck Description: 2500 psi structural concrete
System Type C: 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ISO 95+ GL, ACFoam-II, H-Shield, ENRGY 3 Minimum 0.5" thick	N/A	N/A
<u>Top Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Structodek® High Density Fiberboard Roof Insulation, H-Shield HD, DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board, SECUROCK® Glass-Mat Roof Board Minimum 0.5" thick	N/A	N/A

Insulation Note: All insulation layers shall be simultaneously, preliminarily secured with the RhinoBond® membrane fasteners installed as described below for membrane attachment. Please refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

RhinoBond® Tread Safe Plate Note: The total insulation thickness shall be 2.0" minimum when using RhinoBond TreadSafe Plates (TPO & PVC). A 5/8" diameter pilot hole is required when using RhinoBond TreadSafe Plates (TPO & PVC) with wood fiber or gypsum top layer insulation.

Membrane: TremPly TPO or TremPly Max TPO is secured with RhinoBond Insulation Plates (TPO & PVC) or RhinoBond TreadSafe Plates (TPO & PVC) and #14 Roofgrip fasteners. Stress plates and fasteners are placed on a 24" x 24" grid and fasteners are driven through the insulation and into the roof deck. The roof cover is bonded to stress plates using the RhinoBond® Portable Bonding Tool per manufacturer's installation instructions. Weighted cooling magnets are placed over the bonded membrane/plates for a minimum of 45 seconds. Side laps are minimum 3" wide and sealed with 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)



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Membrane Type: TPO

Deck Type 3I: Concrete, Insulated

Deck Description: 2500 psi structural concrete

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

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

One or more layers of any of the following insulations.

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ISO 95+ GL, H-Shield, AC Foam-II Minimum 1" thick	N/A	N/A

Note: Insulation is preliminary attached, 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.

OR

All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: TremPly TPO or TremPly Max TPO attached to the deck through the preliminary attached insulation as specified below.

Fastening #1: Membrane is mechanically attached using #14 Roofgrip fasteners and OMG 2-3/8" Barbed XHD Plates, OMG 2 in. Barbed Plates or OMG Eyehook Accuseam Plates spaced 6" o.c. within minimum 6" wide laps. Laps are spaced at maximum 114" o.c. and sealed with a minimum 1.5" wide heat weld.
(Maximum Design Pressure –52.5 psf. See General Limitation #7)

Fastening #2: Membrane is mechanically attached using #14 Roofgrip fasteners and OMG 2 in. Barbed Plates spaced 6" o.c. within minimum 5" wide laps. Laps are spaced at maximum 114" o.c. and sealed with a minimum 5" wide heat weld.
(Maximum Design Pressure –75 psf. See General Limitation #7)

Maximum Design

Pressure: See Fastening Options Above



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Membrane Type: TPO

Deck Type 3I: Concrete, Insulated

Deck Description: 2500 psi structural concrete

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

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

One or more layers of any of the following insulations.

<u>Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
ISO 95+ GL, H-Shield, AC Foam-II Minimum 1.5" thick	N/A	N/A

Note: Insulation is preliminary attached, 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.

OR

All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: TremPly TPO, TremPly Max TPO, TremPly TPO FB or TremPly Max TPO FB attached through the preliminary attached insulation as specified below.

Fastening #1: Membrane is mechanically attached using #14 Roofgrip fasteners and OMG 2-3/4" Super XHD Barbed Plates spaced 12" o.c. within minimum 6" wide laps. Laps are spaced at maximum 114" o.c. and sealed with a minimum 1.5" wide heat weld.
(Maximum Design Pressure –45 psf. See General Limitation #7)

Fastening #2: Membrane is mechanically attached using #14 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. *(Maximum Design Pressure –60 psf. See General Limitation #7)*

Fastening #3: Membrane is mechanically attached using #14 Roofgrip fasteners and OMG 2 in. Barbed Plates, OMG 2-3/8" Barbed XHD Plates or OMG Eyehook Accuseam Plates spaced 6" o.c. within minimum 6" wide laps. Laps are spaced at maximum 91.5" o.c. and sealed with a minimum 1.75" wide heat weld.
(Maximum Design Pressure –60 psf. See General Limitation #7)

Maximum Design Pressure: See Fastening Options Above



Membrane Type: TPO

Deck Type 3I: Concrete, Non-Insulated

Deck Description: 2500 psi structural concrete

System Type F(1): Membrane adhered directly to 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.

Membrane: TremPly TPO FB adhered to structural concrete deck.

Fastening: Membrane is fully adhered to a structural concrete deck with TremPly WB Bonding Adhesive roller applied to the concrete at the rate of 0.84 gallons per square or (0.34 Liter/meter squared). Then the fleece back membrane is rolled into the wet adhesive. The laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

Maximum Design Pressure: -300 psf. (See General Limitation #9)



Membrane Type: TPO
Deck Type 3I: Concrete, Non-Insulated
Deck Description: 2500 psi structural concrete
System Type F(2): Membrane adhered directly to 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.

Membrane: One ply of TremPly TPO FB or TremPly Max TPO FB adhered with Tremco Low Rise Foam Insulation Adhesive applied in 1" wide beads spaced 6" o.c. or OlyBond 500 applied in a spatter pattern at 0.318 gal./sq. The laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

Maximum Design Pressure: -502.5 psf. (See General Limitation #9)



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Membrane Type: TPO

Deck Type 3I: Concrete, Non-Insulated

Deck Description: 2500 psi structural concrete

System Type F(3): Membrane adhered directly to 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.

Membrane: One ply of TremPly TPO FB or TremPly Max TPO FB adhered with Tremco Low Rise Foam Insulation Adhesive (BG) or Tremco LR Adhesive applied in 1" wide beads spaced 6" o.c. The laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

Maximum Design Pressure: -502.5 psf. (See General Limitation #9)



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Membrane Type: TPO

Deck Type 3I: Concrete, Non-Insulated

Deck Description: 2500 psi structural concrete

System Type F(4): Membrane adhered directly to 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.

Note: If the optional vapor barrier is not present the concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of membrane.

Membrane: One ply of TremPly TPO FB or TremPly Max TPO FB fully adhered in approved asphalt at an application rate of 20-40 lbs./sq. The laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

Maximum Design

Pressure: -390 psf. (See General Limitation #9)



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Membrane Type: TPO

Deck Type 3I: Concrete, Non-Insulated

Deck Description: 2500 psi structural concrete

System Type F(5): Membrane adhered directly to 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.

Membrane: One ply of TremPly TPO FB or TremPly Max TPO FB adhered with Tremco Low Rise Foam Insulation Adhesive, Tremco Low Rise Foam Insulation Adhesive (BG), Tremco LR Adhesive or Millennium One-Step Foamable Adhesive in $\frac{3}{4}$ - 1" ribbons spaced 12"o.c. or OlyBond 500 applied in a spatter pattern at 0.318 gal./sq. The laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

Maximum Design

Pressure: -60 psf. (See General Limitation #9)



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Membrane Type: TPO

Deck Type 3I: Concrete, Non-Insulated

Deck Description: 2500 psi structural concrete

System Type F(6): Membrane adhered directly to 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.

Membrane: One ply of TremPly TPO FB or TremPly Max TPO FB adhered with Millennium One-Step Foamable Adhesive in $\frac{3}{4}$ - 1" ribbons spaced 6"o.c. The laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

Maximum Design

Pressure: -492.5 psf. (See General Limitation #9)



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Membrane Type: TPO
Deck Type 3I: Concrete, Non-Insulated
Deck Description: 2500 psi structural concrete
System Type F(7): Membrane adhered directly to 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.

Membrane: One ply of TremPly TPO FB or TremPly Max TPO FB adhered with Tremco Low Rise Foam Insulation Adhesive, Tremco Low Rise Foam Insulation Adhesive (BG), Tremco LR Adhesive or Millennium One-Step Foamable Adhesive in ¾ - 1" ribbons spaced 4"o.c. or OlyBond 500 applied in a spatter pattern at 0.318 gal./sq. The laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

Maximum Design Pressure: -337.5 psf. (See General Limitation #9)



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Membrane Type: TPO

Deck Type 3I: Concrete, Non-Insulated

Deck Description: 2500 psi structural concrete

System Type F(8): Membrane adhered directly to 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.

Membrane: One ply of TremPly TPO FB or TremPly Max TPO FB fully adhered with OlyBond 500 applied in a spatter pattern at 0.318 gal./sq. applied in a spatter pattern at 3.75 lbs./sq. The laps are heat welded a minimum 1-1/2" width for automatic machine welding. Weld width shall be a minimum 2" in width for hand welding. The membrane is then rolled with a water filled roller weighing a minimum of 250 lbs.

Maximum Design Pressure: -497.5 psf. (See General Limitation #9)



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CONCRETE 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 Engineer, Architect, or Registered Roof Consultant.

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 with Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
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