



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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Holcim Solutions and Products US, LLC.
26 Century Boulevard, Suite 205
Nashville, TN 37214

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: Firestone UltraPly TPO SA Single Ply Roof Systems over Recover Decks.

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

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

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

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

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

This NOA revises NOA-No. 15-0209.03 and consists of pages 1 through 68.

The submitted documentation was reviewed by Jorge L. Acebo.



NOA-No.: 23-0613.33
Expiration Date: 07/25/24
Approval Date: 08/24/23
Page 1 of 68

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Single Ply Roofing
Material:	TPO
Deck Type:	Recover
Maximum Design Pressure:	See Specific Deck Type

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specifications	Product Description
UltraPly TPO SA	Various	TAS 131 ASTM D6878	Reinforced TPO 0.045" to 0.060" thick membrane.
UltraPly TPO Reinforced Curb Corner	Various	TAS 131 ASTM D6878	TPO curb flashing
UltraPly 18" Curb Flashing	Various	TAS 131 ASTM D6878	TPO curb flashing
UltraPly TPO Inside/Outside Corner	Various	TAS 131 ASTM D6878	Molded TPO for corner flashing
UltraPly TPO Large Pipe Flashing	Various	TAS 131 ASTM D6878	TPO flashing for large round penetrations
UltraPly TPO T-Joint Cover	Various	TAS 131 ASTM D6878	TPO flashing for T-joints
UltraPly TPO Penetration Kit	Various	TAS 131 ASTM D6878	Penetration sealing kit for UltraPly TPO
UltraPly TPO Walkway Pad	Various	TAS 131 ASTM D6878	TPO walkway pad
UltraPly TPO Coated Metal	Various	TAS 131 ASTM D6878	TPO laminated to hot-dipped galvanized steel for flashing
UltraPly TPO Premium Walkway Pad	Various	TAS 131 ASTM D6878	TPO walkway pad
UltraPly TPO Reinforced Split Pipe Boot	Various	TAS 131 ASTM D6878	TPO flashing for round penetrations 1" to 9" in diameter
UltraPly TPO 8" Reinforced Cover Strip	Various	TAS 131 ASTM D6878	8" wide 60 mil TPO cover strip
UltraPly TPO Universal Pipe Boot	Various	TAS 131 ASTM D6878	TPO flashing for round penetrations 1" to 6" in diameter
UltraPly TPO Unsupported Flashing	Various	TAS 131 ASTM D6878	Unreinforced TPO used for flashing
I.S.O. Stick	5 gal & 1500 ml	Proprietary	A dual component polyurethane adhesive.
I.S.O. Twin Pack Insulation Adhesive	1500 ml	Proprietary	A dual component polyurethane adhesive.

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

<u>Product</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
I.S.O. Fix II	30 lbs.	Proprietary	A single component polyurethane adhesive.
I.S.O. Spray R	15 gal pail & 55 gal drum	Proprietary	A two part polyurethane adhesive

APPROVED INSULATIONS:**TABLE 2**

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
ISO 95+ GL ISO 95+ GL Tapered ISOGARD HD	Polyisocyanurate foam insulation Polyisocyanurate with a coated fiberglass facer	Holcim Solutions and Products US, LLC Holcim Solutions and Products US, LLC
ISOGARD HD Composite	Polyisocyanurate with a coated fiberglass facer composite insulation.	Holcim Solutions and Products US, LLC
RESISTA RESISTA Tapered	Polyisocyanurate foam core laminated to a coated fiberglass facer.	Holcim Solutions and Products US, LLC
DensDeck Prime	Silicon treated gypsum	Georgia Pacific Gypsum LLC
SECUROCK Gypsum-Fiber Roof Board	Rigid, gypsum-based board stock	United States Gypsum Corp.
GenFlex ISO Insulation GenFlex ISO Insulation Tapered Coated Glass Facer Coated Glass Facer Tapered GenFlex HD ISO	Polyisocyanurate foam insulation Polyisocyanurate foam insulation Polyisocyanurate with a coated fiberglass facer	Holcim Solutions and Products US, LLC Holcim Solutions and Products US, LLC Holcim Solutions and Products US, LLC
GenFlex HD Composite ISO	Polyisocyanurate with a coated fiberglass facer composite insulation.	Holcim Solutions and Products US, LLC

APPROVED FASTENERS:**TABLE 3**

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Firestone Heavy-Duty	#15 Fastener for steel, Wood, concrete decks.	N/A	Holcim Solutions and Products US, LLC
2.	Firestone All-Purpose	#14 Fastener for steel, Wood, concrete decks.	N/A	Holcim Solutions and Products US, LLC
3.	Concrete Drive	Structural concrete fastener.	Various	Holcim Solutions and Products US, LLC
4.	Insulation Fastening Plate	Galvalume insulation plate	3" diameter	Holcim Solutions and Products US, LLC

EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
UL LLC	R9516	UL 790	04/26/16
FM Approvals	3036642	FM 4470	10/09/09
	3030650	FM 4470	07/10/09
	3035560	FM 4470	01/11/10
	3019991	FM 4470	09/20/05
	3017120	FM 4470	04/30/04
	3038546	FM 4470	12/17/10
	3039133	FM 4470	04/07/11
	3036747	FM 4470	02/12/10
	3035017	FM 4470	04/15/09
	3038191	FM 4470	08/04/11
	3036256	FM 4470	04/27/09
	3038770	FM 4470	08/04/11
	3041939	FM 4470	08/14/12
	3044047	FM 4470	05/17/12
	3047398	FM 4470	08/15/13
	3047700	FM 4470	08/16/13
	3057531	FM 4470	06/07/16
	797-05830-267	FM 4470	08/30/10
	797-10191-267	FM 4470	01/09/15
Trinity ERD	F8300.07.08	TAS 131/ ASTM D6878	07/30/08
	F8300.11.08-R3	TAS 131/ ASTM D6878	02/25/11
	F45600.09.13-R1	TAS 131/ASTM D6878	12/30/13
PRI Construction Materials Technologies, LLC	FBP-038-02-01	Physical Properties	12/27/10
	FBP-054-02-05, R1	FM 4474/TAS 114 D	02/07/13
	FBP-085-02-01	TAS 114 J	10/04/12
	FBP-044-02-01, R9	TAS 114 H, J	06/01/17
	FBP-145-02-01	TAS 131/ASTM D6878	06/26/14
	FBP-094-02-01	TAS 131/ASTM D6878	11/20/13
	FBP-125-02-01	TAS 114 C	07/23/13
	FBP-149-02-01	TAS 114 J	12/18/13

EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
PRI Construction Materials Technologies, LLC	FBP-154-02-02	TAS 114 J	12/18/13
	FBP-165-02-01	TAS 114 J	04/28/14
	FBP-165-02-01A	TAS 114 J	04/28/14
	FBP-175-02-01	TAS 114 J	04/28/14
	FBP-190-02-01	TAS 114 D	07/31/14
	FBP-206-02-01	TAS 114 J	02/02/15
	FBP-213-02-01	TAS 114 J	11/20/14
	FBP-214-02.01.1	ASTM C 1289	11/09/16
	FBP-214-02.02	ASTM C 1289	02/10/15
	FBP-220-02-01.1	TAS 114 J	01/29/15
	FBP-225-02-01	TAS 114 J	03/19/15
	FBP-230-02-01	TAS 114 J	04/02/15
	FBP-233-02-01	TAS 114 J	06/01/15
	FBP-233-02-02	TAS 114 C	04/03/15
	FBP-233-02-03	TAS 114 J	06/01/15
	FBP-235-02-01	TAS 114 J	06/01/15
	FBP-238-02-01	TAS 114 J	07/01/15
	FBP-238-02-03	TAS 114 J	07/15/15
	FBP-239-02-01	TAS 114 J	07/15/15
	FBP-241-02-01	TAS 114 J	07/22/15
	FBP-246-02-01	ASTM C 1289	10/05/15
	FBP-280-02-01	ASTM C 1289	04/27/16
	FBP-315-02-01	ASTM C 1289	10/28/16

DECK STRESS ANALYSIS CALCULATIONS/REPORTS:

<u>Engineer/Agency</u>	<u>Identifier</u>	<u>Assemblies</u>	<u>Date</u>
Zachary R. Priest, P.E.	Signed/Sealed Calculations	B5, C19, C20, C21, C22, C27, C37	10/3/16
		B6	6/1/15
		C23, C24	2/2/15
		C33	3/19/15
FM Approval Deck Limitations	N/A	C2, C11, C12, C39	01/01/13

APPROVED ASSEMBLIES:

Membrane Type:	Single Ply, TPO
Deck Type 7I:	Recover, Insulated
Deck Description:	Min. 2500 psi structural concrete
System Type A(1):	One or more layers of insulation adhered with approved adhesive over existing asphaltic BUR; membrane self adhered.

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

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISOGARD HD, GenFlex HD ISO		
Minimum: ½” thick	N/A	N/A
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum: ¼” thick	N/A	N/A

Note: Insulation shall be adhered using I.S.O. Twin Pack Insulation Adhesive in continuous ½” - ¾” wide beads spaced 12” o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous ¾” - 1” wide ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil UltraPly TPO SA self-adhered with 1.5” wide heat weld at the 2”wide side laps.
Maximum Design Pressure:	-45 psf. (See General Limitation #9)

Membrane Type:	Single Ply, TPO
Deck Type 7I:	Recover, Insulated
Deck Description:	Min. 2500 psi structural concrete
System Type A(2):	One or more layers of insulation adhered with approved adhesive over existing asphaltic BUR; membrane self adhered.

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

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation		
Minimum: 1.0" thick	N/A	N/A
Middle Insulation layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Tapered ISO 95+ GL, Tapered GenFlex ISO Insulation		
Minimum: ½" thick with a ¼" per ft. taper	N/A	N/A

Note: Base layers of insulation shall be adhered using I.S.O. Twin Pack Insulation Adhesive in continuous ½" - ¾" wide beads spaced 12" o.c. or I.S.O. Fix II or I.S.O. Stick (base insulation layer to concrete deck only) applied in continuous ¾" - 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISOGARD HD, GenFlex HD ISO		
Minimum: ½" thick	N/A	N/A
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board,		
Minimum: ¼" thick	N/A	N/A

Note: Top layer of insulation shall be adhered using I.S.O. Twin Pack Insulation Adhesive in continuous ½" - ¾" wide beads spaced 12" o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" - 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

Maximum Design Pressure:

- 172.5 psf. (With ISO 95+ GL, ISOGARD HD & DensDeck boards) (See General Limitation #9)
- 112.5 psf. (With SECUROCK boards) (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type B(1): Base layer of insulation mechanically fastened, top layer adhered: membrane self-adhered.

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

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 1.5" thick	1 or 3 with 4	1:2 ft²
Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 1" thick	N/A	N/A
(Optional) Additional Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 1" thick	N/A	N/A
Tapered ISO 95+ GL, Tapered GenFlex ISO Insulation Minimum ½" thick with a ¼" per ft. taper	N/A	N/A
Top Insulation Layer (cover board)	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	N/A	N/A

Note: Base layer shall be mechanically attached with fasteners and density described. All other layers of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" - ¾" wide beads spaced 12" o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" - 1" wide ribbons spaced 12" o.c. 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type B(2): Base layer of insulation mechanically fastened, top layer adhered: membrane self-adhered.

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

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 1.5" thick	1 or 3 with 4	1:2 ft²
Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 1" thick	N/A	N/A
(Optional) Additional Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 1" thick	N/A	N/A
Tapered ISO 95+ GL, Tapered GenFlex ISO Insulation Minimum ½" thick with a ¼" per ft. taper	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISOGARD HD, GenFlex HD ISO Minimum ½" thick	N/A	N/A

Note: Base layer shall be mechanically attached with fasteners and density described. All other layers of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" - ¾" wide beads spaced 12" o.c. or I.S.O. Fix II, or I.S.O. Stick applied in continuous ¾" - 1" wide ribbons spaced 12" o.c. 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type B(3): Base layer of insulation mechanically fastened, top layer adhered: membrane self-adhered.

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

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1" thick	N/A	N/A

Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1½" thick	1 or 3 with 4	1:2 ft²

Note: Optional Base layer shall be loose laid. Middle layer shall be simultaneously fastened 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
ISOGARD HD, GenFlex HD ISO Minimum ½" thick	N/A	N/A

Note: Top layer shall be adhered to middle insulation with I.S.O. Twin Pack Insulation Adhesive in continuous ½" to ¾" wide beads spaced 12" o.c. or, I.S.O. Fix II, or I.S.O. Stick applied in continuous ¾" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type:	Single Ply, TPO
Deck Type 7I:	Recover, Insulated
Deck Description:	Min. 2500 psi structural concrete
System Type B(4):	Base layer of insulation mechanically fastened, top layer adhered; membrane self-adhered.

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

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 1.5" thick	1 or 3 with 4	1:1.6 ft²
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck Prime Minimum ½" thick	N/A	N/A
SECUROCK Gypsum-Fiber Roof Board Minimum 1/2" thick	N/A	N/A
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1.5" thick	N/A	N/A

Note: Base layer shall be mechanically attached with fasteners and density described. Top layer of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" - ¾" wide beads spaced 6" o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" - 1" wide ribbons spaced 6" o.c. 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete or min. 22 ga. Type B, Grade 33 steel decking attached to steel supports spaced 6 ft o.c. with 5/8" diameter puddle welds 6" o.c. and with side laps attached using 1/4" - 14 x 7/8" HWH self-drilling fasteners spaced 24" o.c. *The deck should record a Minimum Characteristic Resistance Force (MCRF) of 240 lbf. When tested with Firestone All Purpose (steel only), Heavy Duty fasteners, or Concrete Drive (concrete only) in accordance with TAS 105.

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

System Type B(5): Base layer of insulation mechanically fastened, top layer adhered: membrane self adhered.

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

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 2" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:1.78 ft²
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/4" thick	N/A	N/A

Note: Base layer shall be mechanically attached with fasteners and density described. Top insulation layer shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive ((ISOGARD HD (GenFlex HD ISO) only)) in continuous 1/2" - 3/4" wide beads spaced 6" o.c. or I.S.O. Fix II (except DensDeck Prime) or I.S.O. Stick applied in continuous 3/4" - 1" wide ribbons spaced 6" o.c. or I.S.O. Spray R applied in continuous 3/4" - 1" wide ribbons spaced 12" o.c. 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 22 ga., Type B, Grade 33 steel decking attached to steel supports spaced 6 ft o.c. with 5/8" diameter puddle welds 6" o.c. and with side laps attached using 1/4" - 14 x 7/8" HWH self-drilling fasteners spaced 24" o.c. *The deck should record a Minimum Characteristic Resistance Force (MCRF) of 240 lbf. When tested with Firestone All Purpose (steel only) or Heavy Duty fasteners in accordance with TAS 105.

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

System Type B(6): Base layer of insulation mechanically fastened, top layer adhered: membrane self-adhered.

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

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 2" thick	1 or 2 with 4	1:1.78 ft²
Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1/2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISOGARD HD, GenFlex HD ISO Minimum 1/2" thick	N/A	N/A

Note: Base layer shall be mechanically attached with fasteners and density described. All other layers of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous 1/2" - 3/4" wide ribbons spaced 12" o.c. or I.S.O. Spray R, I.S.O. Fix II or I.S.O. Stick applied in continuous 3/4" - 1" wide ribbons spaced 12" o.c. 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type B(7): Base layer of insulation mechanically fastened, top layer adhered; membrane self adhered.

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

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 2" thick	1 or 3 with 4	1:1.6 ft²

Note: Insulation layer 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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



Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type B(8): Base layer of insulation mechanically fastened, top layer adhered; membrane self adhered.

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

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 2" thick	1 or 3 with 4	1:1.6 ft²

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

Top insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 1" thick	N/A	N/A

Note: Top layer of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" - ¾" wide ribbons spaced 6" o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" - 1" wide ribbons spaced 6" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type B(9): Base layer of insulation mechanically fastened, top layer adhered; membrane self adhered.

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

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 2" thick	1 or 3 with 4	1:1 ft²

Note: Base Insulation layer 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type B(10): Base layer of insulation mechanically fastened, top layer adhered: membrane self-adhered.

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

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 1" thick	N/A	N/A
Tapered ISO 95+ GL, Tapered GenFlex ISO Insulation Minimum ½" thick with a ¼" per ft. taper	N/A	N/A
Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 2" thick	1 or 3 with 4	1:6 ft ²

Note: Optional Base layer shall be loose laid. Middle layer shall be simultaneously fastened 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
ISOGARD HD, GenFlex HD ISO Minimum 1/2" thick	N/A	N/A

Note: Optional top layer shall be adhered to middle insulation with I.S.O. Twin Pack Insulation Adhesive in continuous ½" - ¾" wide beads spaced 6" o.c. or, , I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" - 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type:	Single Ply, TPO
Deck Type 7I:	Recover, Insulated
Deck Description:	Min. 2500 psi structural concrete
System Type B(11):	Base layer of insulation mechanically fastened, top layer adhered; membrane self adhered.

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

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 2" thick	1 or 3 with 4	1:1 ft²
Top Insulation Layer (cover board)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISOGARD HD, GenFlex HD ISO Minimum ½" thick	N/A	N/A

Note: Base layer shall be mechanically attached with fasteners and density described. Top layer of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" - ¾" wide beads spaced 4" o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" - 1" wide ribbons spaced 4" o.c. 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:	Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 3" wide side laps.
Maximum Design Pressure:	-90 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type B(12): Base layer of insulation mechanically fastened, top layer adhered: membrane self-adhered.

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

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 2" thick	1 or 3 with 4	1:1 ft²
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISOGARD HD, GenFlex HD ISO Minimum ½" thick	N/A	N/A

Note: Base layer shall be mechanically attached with fasteners and density described. Top layer of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" - ¾" wide beads spaced 12" o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" - 1" wide ribbons spaced 12" o.c. 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type B(13): Base layer of insulation mechanically fastened, top layer adhered; membrane self adhered.

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

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
ISO 95+ GL, GenFlex ISO Insulation Minimum 2" thick	1 or 3 with 4	1:1 ft ²
Top Insulation Layer (cover board)	Insulation Fasteners (Table 3)	Fastener Density/ft ²
ISOGARD HD, GenFlex HD ISO Minimum ½" thick	N/A	N/A

Note: Base layer shall be mechanically attached with fasteners and density described. Top layer of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" - ¾" wide beads spaced 12" o.c. or I.S.O. Stick applied in continuous ¾" - 1" wide ribbons spaced 12" o.c. 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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



Membrane Type:	Single Ply, TPO
Deck Type 7I:	Recover, Insulated
Deck Description:	Min. 2500 psi structural concrete
System Type B(14):	Base layer of insulation mechanically fastened, top layer adhered: membrane self-adhered.

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

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 2" thick	1 or 3 with 4	1:1 ft²

Note: Base layer 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 fastener details.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 1" thick	N/A	N/A

Note: Top insulation layer shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" - ¾" wide beads spaced 4" o.c. or I.S.O. Fix II Adhesive or I.S.O. Stick applied in continuous ¾" - 1" wide ribbons spaced 4" o.c. See Roofing Application Standard RAS 117 for insulation attachment details.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 3" wide side laps.

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

Membrane Type:	Single Ply, TPO
Deck Type 7I:	Recover, Insulated
Deck Description:	Min. 2500 psi structural concrete
System Type B(15):	Base layer of insulation mechanically fastened, top layer adhered: membrane self-adhered.

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

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 2" thick	1 or 3 with 4	1:1 ft²

Note: Base layer 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 fastener details.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/2" thick	N/A	N/A
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2" thick	N/A	N/A

Note: Top insulation layer shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous 1/2" - 3/4" wide beads spaced 4" o.c. or I.S.O. Fix II Adhesive or I.S.O. Stick Adhesive applied in continuous 3/4" - 1" wide ribbons spaced 4" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 3" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type B(16): Base layer of insulation mechanically fastened, top layer adhered: membrane self-adhered.

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

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
RESISTA, Coated Glass Facer Minimum 1.5" thick	1 or 3 with 4	1:1 ft²
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
RESISTA, Coated Glass Facer Minimum 1.5" thick	N/A	N/A

Note: Note: Base layer shall be mechanically attached with fasteners and density described. Top layer of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" - ¾" wide beads spaced 12" o.c. or I.S.O. Stick or I.S.O. Fix II applied in continuous ¾" - 1" wide ribbons spaced 12" o.c. 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

Maximum Design Pressure: -120 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type B(17): Base layer of insulation mechanically fastened, top layer adhered; membrane self adhered.

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

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 2" thick	1 or 3 with 4	1:1 ft²
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ½" thick	N/A	N/A
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1½" thick	N/A	N/A

Note: Base layer shall be mechanically attached with fasteners and density described. Top layer of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" - ¾" wide beads spaced 4" o.c., I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" - 1" wide ribbons spaced 4" o.c. 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 insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

Maximum Design Pressure: -127.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type B(18): Base layer of insulation mechanically fastened, top layer adhered: membrane Self adhered.

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

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 2" thick	1 or 3 with 4	1:1 ft²
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 1" thick	N/A	N/A

Note: Top layer shall be adhered to base insulation with I.S.O. Twin Pack Insulation Adhesive in continuous ½" - ¾" wide beads spaced 4" o.c. or, I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" - 1" wide ribbons spaced 4" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 3" wide side laps.

Maximum Design Pressure: -127.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type B(19): Base layer of insulation mechanically fastened, top layer adhered: membrane self-adhered.

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

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1" thick	N/A	N/A
Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 2" thick	1 or 3 with 4	1:1 ft²

Note: Base layer shall be loose laid. Middle layer shall be simultaneously fastened 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
ISOGARD HD, GenFlex HD ISO Minimum 1/2" thick	N/A	N/A

Note: Top layer shall be adhered to middle insulation with I.S.O. Twin Pack Insulation Adhesive in continuous 1/2" to 3/4" wide ribbons spaced 4" o.c. or, I.S.O. Fix II or I.S.O. Stick applied in continuous 3/4" to 1" wide ribbons spaced 4" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

Maximum Design Pressure: -135 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type C(1): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 1.5" thick	1 or 3 with 4	1:2 ft²

Note: Insulation layer 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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



Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete or min. 22 ga. Type B, Grade 33 steel deck secured to supports spaced 6 ft. o.c. with Traxx/5 fasteners spaced 6" o.c. at the supports (one fastener installed at each bearing attachment point) and Traxx/1 fasteners 24" o.c. at the side laps.

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

System Type C(2): Membrane fully adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISOGARD HD, GenFlex HD ISO Minimum 1" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1: 1.8 ft²
ISO 95 + GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1: 1.8 ft²
DensDeck Prime, SECUROCK Gypsum-Fiber Boards Minimum 1/4" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1: 1.8 ft²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:1.8 ft²

Note: All layers shall be simultaneously fastened; see top layer below 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. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type C(3): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 1" thick	N/A	N/A
Tapered ISO 95+ GL, Tapered GenFlex ISO Insulation Minimum ½" thick with a ¼" per ft. taper	N/A	N/A

Note: Base layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 2 ¼" thick	1 or 3 with 4	1:4 ft ²
Additional Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 1.5" thick	N/A	N/A

Note: Top layer shall be mechanically attached with fasteners and density described. Additional layer of insulation shall be adhered to top insulation with I.S.O. Twin Pack Insulation Adhesive in continuous ½" - ¾" wide beads spaced 12" o.c., I.S.O. Fix II, or I.S.O. Stick applied in continuous ¾" - 1" wide ribbons spaced 12" o.c. 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type C(4): All layers of insulation simultaneously attached; membrane fully adhered.

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

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1½” thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISOGARD HD, GenFlex HD ISO Minimum ½” thick	1 or 3 with 4	1:2.1 ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1” thick	1 or 3 with 4	1:2.1 ft²
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ¼” thick	1 or 3 with 4	1:2.1 ft²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2” thick	1 or 3 with 4	1:2.1 ft²

Note: All layers shall be simultaneously fastened; see top layer below 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5” wide heat weld at the 2” wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: 18 - 22 ga. 33 ksi

System Type C(5): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum ½" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISOGARD HD, GenFlex HD ISO Minimum ½" thick	2 or 1 and 4	1:2.7ft²

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO
Deck Type 7I: Recover, Insulated
Deck Description: Min. 2500 psi structural concrete
System Type C(6): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 1-1/2" thick	N/A	N/A
Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Tapered ISO 95+ GL, Tapered GenFlex ISO Insulation Minimum 1/2" thick with a 1/4" per ft. taper	N/A	N/A

Note: Base layer shall be loose laid. Middle layer shall be loose laid. 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
DensDeck Prime Minimum 1/4" thick	1 or 3 with 4	1:2 ft ²
Plywood Minimum 7/16" thick	1 or 3 with 4	1:2 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. See Roofing Application Standard RAS 117 for fastening details.

Additional Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISOGARD HD, GenFlex HD ISO Minimum 1/2" thick	1 or 3 with 4	1:2 ft ²

Note: Additional top layer shall be fastened. See 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. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type C(7): Membrane self-adhered over mechanically fastened insulation.

All General and System Limitations apply.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
RESISTA, Coated Glass Facer Minimum 1.5" thick	1 or 3 with 4	1:1.6 ft²

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 3" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type C(8): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum ½” thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 2” thick	1 or 3 with 4	1:1.6 ft²
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ½” thick	1 or 3 with 4	1:1.6 ft²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2” thick	1 or 3 with 4	1:1.6 ft²

Note: All layers shall be simultaneously fastened; see top layer below 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. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5” wide heat weld at the 2” wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type C(9): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum ½” thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 2” thick	1 or 3 with 4	1:1 ft²
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/2” thick	1 or 3 with 4	1:1 ft²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2” thick	1 or 2 with 4	1:1 ft²

Note: All layers shall be simultaneously fastened; see top layer below 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. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5” wide heat weld at the 2” wide side laps.

Maximum Design Pressure: -142.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type C(10): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum ½” thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
RESISTA, Coated Glass Facer Minimum 2” thick	1 or 3 with 4	1:1 ft²
SECUROCK Gypsum-Fiber Roof Board Minimum 1/2” thick	1 or 3 with 4	1:1 ft²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2” thick	1 or 3 with 4	1:1 ft²

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5” wide heat weld at the 2” wide side laps.

Maximum Design Pressure: -150 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete or min. 22 ga. Type B, Grade 33 steel deck secured to supports space at maximum 6 ft. o.c. with ITW Buildex Traxx/5 spaced at 6" o.c. Side lap fastened with ITW Buildex Traxx/1 spaced at 24" o.c.

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

System Type C(11): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations (not to exceed 1" for steel deck):

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1.0" thick	1 or 2 with 4 (for steel) 1 or 3 with 4 (for concrete)	1:1.33 ft²

Note: All layers shall be simultaneously fastened. See above for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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



Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete or min. 22 ga. Type B, Grade 33 steel deck secured to supports spaced 6 ft. o.c. with Traxx/5 fasteners spaced 6" o.c. at the supports (one fastener installed at each bearing attachment point) and Traxx/1 fasteners 24" o.c. at the side laps.

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

System Type C(12): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+GL, GenFlex ISO Insulation Minimum 1.5" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISOGARD HD, GenFlex HD ISO Minimum 1/2" thick	1 or 2 with 4 (for steel) 1 or 3 with 4 (for concrete)	1:33 ft²
DensDeck Prime, SECUROCK Gypsum Fiber Roof Board Minimum 1/4" thick	1 or 2 with 4 (for steel) 1 or 3 with 4 (for concrete)	1:33 ft²
ISO 95 +GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1" thick	1 or 2 with 4 (for steel) 1 or 3 with 4 (for concrete)	1:33 ft²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2" thick	1 or 2 with 4 (for steel) 1 or 3 with 4 (for concrete)	1:33 ft²

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5” wide heat weld at the 2” wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type C(13): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2" thick	1 or 3 with 4	1:1.33 ft²

Note: All layers shall be simultaneously fastened. See above for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

Maximum Design Pressure: -112.5 psf. (See General Limitation #7)



Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type C(14): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum ½” thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 2” thick	1 or 3 with 4	1: 1.33 ft²

Note: All layers shall be simultaneously fastened; see top layer below 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. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5” wide heat weld at the 2” wide side laps.

Maximum Design Pressure: -120 psf. (See General Limitation #7)



Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type C(15): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
RESISTA, Coated Glass Facer Minimum 2" thick	1 or 3 with 4	1:1.33 ft²

Note: All layers shall be simultaneously fastened. See above for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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



Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type C(16): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum ½” thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
RESISTA, ISOGARD HD Composite, Coated Glass Facer, GenFlex HD Composite ISO Minimum 1-1/2” thick	1 or 3 with 4	1:1.6 ft²
ISO 95 + GL, GenFlex ISO Insulation Minimum 2” thick	1 or 3 with 4	1:1.6 ft²
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/2” thick	1 or 3 with 4	1:1.6 ft²

Note: All layers shall be simultaneously fastened. See above for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5” wide heat weld at the 2” wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type C(17): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum ½” thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1¼” thick	1 or 3 with 4	1:2.7 ft²
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/2” thick	1 or 3 with 4	1:2.7 ft²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2” thick	1 or 3 with 4	1:2.7 ft²

Note: All layers shall be simultaneously fastened; see top layer below 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5” wide heat weld at the 2” wide side laps.

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



Membrane Type: Single Ply, Thermoplastic, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete. *The deck should record a Minimum Characteristic Resistance Force (MCRF) of 214 lbf. When tested with Heavy Duty fasteners or Concrete Drive (concrete only) in accordance with TAS 105.

System Type C(18): Membrane self-adhered over mechanically fastened insulation.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum ½" thick	N/A	N/A
Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, ISOGARD HD Composite, RESISTA, GenFlex ISO Insulation, Coated Glass Facer, GenFlex HD Composite ISO Minimum 1-1/2" thick	1 or 3 with 4	1: 1.78 ft²
DensDeck Prime, SECUROCK Gypsum Fiber Roof Board Minimum ½" thick	1 or 3 with 4	1: 1.78 ft²

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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



Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete or min. 22 ga., Type B, Grade 33 steel deck with supports spaced maximum 6 ft. o.c. Steel deck attached at each flute along intermediate supports with 5/8" diameter puddle welds. Panel laps stitched 24" o.c. with #1/4-14 x 7/8" HWH self-drilling screws. The existing shall be minimum 1" in total thickness. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 160 lbf. when tested with Firestone All Purpose (steel only), Heavy Duty fasteners, or Concrete Drive (concrete only) installed through to the deck in accordance with TAS 105.

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

System Type C(19): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1" 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 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:1.78 ft ²
RESISTA, Coated Glass Facer Minimum 1" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete))	1:1.78 ft ²
ISO 95+ GL, ISOGARD HD Composite, GenFlex ISO Insulation, GenFlex HD Composite ISO Minimum 1-1/2" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:1.78 ft ²
DensDeck Prime Minimum 1/2" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:1.78 ft ²

Note: All layers shall be simultaneously fastened; see top layer below 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5” wide heat weld at the 2” wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete or min. 22 ga., Type B, Grade 33 steel deck with supports spaced maximum 6 ft. o.c. Steel deck attached at each flute along intermediate supports with 5/8" diameter puddle welds. Panel laps stitched 24" o.c. with #1/4-14 x 7/8" HWH self-drilling screws. *The deck should record a Minimum Characteristic Resistance Force (MCRF) of 240 lbf. When tested with Firestone All Purpose (steel only), Heavy Duty fasteners, or Concrete Drive (concrete only) in accordance with TAS 105.

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

System Type C(20): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 2" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:2.67 ft²
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/2" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:2.67 ft²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:2.67 ft²

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete or min. 22 ga., Type B, Grade 33 steel deck with supports spaced maximum 6 ft. o.c. Steel deck attached at each flute along intermediate supports with #12-24 x 1-1/4" HWH self-drilling screws. Panel laps stitched 24" o.c. with #1/4-14 x 7/8" HWH self-drilling screws. Existing roof shall be a minimum of 1" in total thickness. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 214 lbf. when tested with Firestone All Purpose (steel only), Heavy Duty fasteners, or Concrete Drive (concrete only) installed through to the deck in accordance with TAS 105.

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

System Type C(21): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1/2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
SECUROCK Gypsum-Fiber Roof Board Minimum 1/2" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:1.78 ft²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:1.78 ft²

Note: All layers shall be simultaneously fastened; see top layer below 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete or min. 22 ga., Type B, Grade 33 steel deck with supports spaced maximum 6 ft. o.c. Steel deck attached at each flute along intermediate supports with #12-24 x 1-1/4" HWH self-drilling screws. Panel laps stitched 24" o.c. with #1/4-14 x 7/8" HWH self-drilling screws. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 168 lbf. when tested with Firestone All Purpose (steel only), Heavy Duty fasteners, or Concrete Drive (concrete only) installed through to the deck in accordance with TAS 105.

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

System Type C(22): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1/2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
RESISTA, Coated Glass Facer Minimum 1" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:1.6 ft ²
ISO 95 + GL, ISOGARD HD Composite, GenFlex ISO Insulation, GenFlex HD Composite ISO Minimum 1-1/2" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:1.6 ft ²
SECUROCK Gypsum Fiber Roof Board, DensDeck Prime Minimum 1/2" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:1.6 ft ²

Note: All layers shall be simultaneously fastened; see top layer below 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete or min. 22 ga., Type B, Grade 33 steel deck with supports spaced maximum 6 ft. o.c. Steel deck attached at each flute with 5/8" diameter puddle welds. Panel laps stitched 24" o.c. with #1/4-14 x 7/8" HWH screws. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 256 lbf. when tested with Firestone All Purpose (steel only), Heavy Duty fasteners, or Concrete Drive (concrete only) in accordance with TAS 105. The existing roof shall be a minimum 1/2" thick.

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

System Type C(23): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1/2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
SECUROCK Gypsum-Fiber roof Board Minimum 1/2" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:2.13 ft²

Note: All layers shall be simultaneously fastened; see top layer below 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete or min. 22 ga., Type B, Grade 33 steel deck with supports spaced maximum 6 ft. o.c. Steel deck attached at each flute with 5/8" diameter puddle welds. Panel laps stitched 24" o.c. with #1/4-14 x 7/8" HWH screws. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 216 lbf. when tested with Firestone All Purpose (steel only), Heavy Duty fasteners, or Concrete Drive (concrete only) in accordance with TAS 105. The existing roof shall be a minimum 1/2" thick.

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

System Type C(24): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1/2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
SECUROCK Gypsum-Fiber roof Board Minimum 1/2" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:1.6 ft ²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:1.6 ft ²

Note: All layers shall be simultaneously fastened; see top layer below 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type C(25): Membrane self-adhered over mechanically fastened insulation.

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

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
SECUROCK Gypsum-Fiber Roof Board Minimum ½” thick	1 or 3 with 4	1:4 ft²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1.5” thick	1 or 3 with 4	1:4 ft²

Note: All layers shall be simultaneously fastened. See above for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5” wide heat weld at the 2” wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: 18 - 22 ga. 33 ksi, or min. 2500 psi structural concrete

System Type C(26): Membrane self-adhered over mechanically fastened insulation.

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

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/4" thick	1 or 2 with 4 (for steel) 1 or 3 with 4 (for concrete)	1:2.7 ft²
RESISTA, Coated Glass Facer Minimum 1" thick	1 or 2 with 4 (for steel) 1 or 3 with 4 (for concrete)	1:2.7 ft²
ISO 95 +GL, ISOGARD HD Composite, GenFlex ISO Insulation, GenFlex HD Composite ISO Minimum 1.5" thick	1 or 2 with 4 (for steel) 1 or 3 with 4 (for concrete)	1:2.7 ft²

Note: All layers shall be simultaneously fastened. See above for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete or min. 22 ga., Type B, Grade 33 steel deck with supports spaced maximum 6 ft. o.c. Steel deck attached at each flute with 5/8" diameter puddle welds. Panel laps stitched 24" o.c. with #1/4-14 x 7/8" HWH screws. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 294 lbf. when tested with Firestone All-Purpose fasteners (steel only), Heavy Duty fasteners, or Concrete Drive (concrete only) installed through to the deck in accordance with TAS 105.

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

System Type C(27): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum ½" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
SECUROCK Gypsum-Fiber Roof Board Minimum ½" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:1.78 ft²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:1.78 ft²

Note: All layers shall be simultaneously fastened; see top layer below 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 15/32" plywood attached to structural supports spaced a maximum 24" o.c. with 0.113" ring shank nails spaced 6" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 240 lbf. when tested with Firestone All Purpose Fasteners or Heavy Duty Fasteners installed through to the deck in accordance with TAS 105.

System Type C(28): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations:

Bottom Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1/2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
SECUROCK Gypsum-Fiber Roof Board Minimum 1/2" thick	1 or 2 with 4	1:1.78 ft ²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1.5" thick	1 or 2 with 4	1:1.78 ft ²

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.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 15/32" plywood attached to structural supports spaced a maximum 24" o.c. with 0.113" ring shank nails spaced 6" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 160 lbf. when tested with Firestone All Purpose or Heavy Duty fasteners installed through to the deck in accordance with TAS 105.

System Type C(29): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1/2" thick	NA	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/4" thick	1 or 2 with 4	1:1.78 ft²
RESISTA, Coated Glass Facer Minimum 1" thick	1 or 2 with 4	1:1.78 ft²
ISO 95+ GL, ISOGARD HD Composite, GenFlex ISO Insulation, GenFlex HD Composite ISO Minimum 1.5" thick	1 or 2 with 4	1:1.78 ft²

Note: Insulation layer 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 15/32" plywood attached to structural supports spaced a maximum 24" o.c. with 0.113" ring shank nails spaced 6" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 214 lbf. when tested with Firestone All Purpose or Heavy Duty fasteners installed through to the deck in accordance with TAS 105.

System Type C(30): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1/2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
RESISTA, ISOGARD HD Composite, Coated Glass Facer, GenFlex HD Composite ISO Minimum 1-1/2" thick	1 or 2 with 4	1:1.78 ft ²
ISO 95+ GL, GenFlex ISO Insulation Minimum 2" thick	1 or 2 with 4	1:1.78 ft ²
DensDeck Prime, SECUROCK Gypsum Fiber Roof Board Minimum 1/2" thick	1 or 2 with 4	1:1.78 ft ²

Note: Insulation layer 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 15/32" plywood attached to structural supports spaced a maximum 24" o.c. with 0.113" ring shank nails spaced 6" o.c. at the perimeter and 12" o.c. in the field of each board. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 144 lbf. when tested with Firestone All Purpose or Heavy Duty fasteners installed through to the deck in accordance with TAS 105.

System Type C(31): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft2
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1/2" 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 or 2 with 4	1:1.6 ft2
DensDeck Prime Minimum 1/2" thick	1 or 2 with 4	1:1.6 ft2
RESISTA, Coated Glass Facer Minimum 1" thick	1 or 2 with 4	1:1.6 ft2
ISO 95+ GL, ISOGARD HD Composite, GenFlex ISO Insulation, GenFlex HD Composite ISO Minimum 1 1/2" thick	1 or 2 with 4	1:1.6 ft2

Note: All layers shall be simultaneously fastened; see top layer below 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 15/32" plywood attached to structural supports spaced a maximum 24" o.c. with 0.113" ring shank nails spaced 6" o.c. at the perimeter and 12" o.c. in the field of each board. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 224 lbf. when tested with Firestone All Purpose (steel only) or Heavy Duty fasteners or concrete drive (concrete only) installed through to the deck in accordance with TAS 105.

System Type C(32): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
RESISTA, ISO 95+ GL, GenFlex ISO Insulation, Coated Glass Facer Minimum 1" thick	NA	NA
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
SECUROCK Gypsum-Fiber Roof Board Minimum 1/2" thick	1 or 2 with 4	1:2.13 ft²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2" thick	1 or 2 with 4	1:2.13 ft²

Note: All layers shall be simultaneously fastened; see top layer below 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO
Deck Type 7I: Recover, Insulated

Deck Description: Min. 22 ga., Type B, Grade 33 steel decking attached to steel supports spaced maximum 6 ft. o.c., min. 2500 psi structural concrete or minimum 15/32" plywood attached to structural supports spaced a maximum 24" o.c. with 0.113" ring shank nails spaced 6" o.c. Steel deck attached at each flute with 5/8" diameter puddle welds. Panel laps stitched 24" o.c. with #1/4-14 x 7/8" HWH screws. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 187 lbf. when tested with Firestone All Purpose and Heavy Duty fasteners installed through to the deck in accordance with TAS 105.

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

System Type C(33): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1/2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:1.78 ft ²
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/2" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:1.78 ft ²
RESISTA, Coated Glass Facer Minimum 2" thick	1 or 2 with 4 (steel) 1 or 3 with 4 (concrete)	1:1.78 ft ²

Note: All layers shall be simultaneously fastened; see top layer below 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure: -52.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 19/32" plywood attached to structural supports spaced a maximum 24" o.c. with 0.113" ring shank nails spaced 6" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 234 lbf. when tested with Firestone All Purpose or Heavy Duty fasteners installed through to the deck in accordance with TAS 105.

System Type C(34): Membrane self-adhered over mechanically fastened insulation.

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

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1/2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISOGARD HD, GenFlex HD ISO Minimum 1/2" thick	1 or 2 with 4	1:2.13 ft ²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1" thick	1 or 2 with 4	1:2.13 ft ²
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/4" thick	1 or 2 with 4	1:2.13 ft ²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1.5" thick	1 or 2 with 4	1:2.13 ft ²

Note: All layers shall be simultaneously fastened; see top layer below 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

Maximum Design Pressure: -55 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 19/32" plywood attached to structural supports spaced a maximum 24" o.c. with 0.113" ring shank nails spaced 6" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 280 lbf. when tested with Firestone All Purpose or Heavy Duty fasteners installed through to the deck in accordance with TAS 105.

System Type C(35): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1/2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1.5" thick	1 or 2 with 4	1:2.67 ft²
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/2" thick	1 or 2 with 4	1:2.67 ft²
RESISTA, Coated Glass Facer Minimum 2" thick	1 or 2 with 4	1:2.67 ft²

Note: All layers shall be simultaneously fastened; see top layer below 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: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

Maximum Design Pressure: -52.5 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 15/32" plywood attached to structural supports spaced a maximum 24" o.c. with 0.113" ring shank nails spaced 6" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 240 lbf. when tested with Firestone All Purpose or Heavy Duty fasteners installed through to the deck in accordance with TAS 105.

System Type C(36): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations:

Bottom Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1/2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
SECUROCK Gypsum-Fiber Roof Board Minimum 1/2" thick	1 or 2 with 4	1:1.78 ft ²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1.5" thick	1 or 2 with 4	1:1.78 ft ²

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.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete or min. 22 ga., Type B, Grade 33 steel decking attached to steel supports spaced maximum 6 ft. o.c. Steel deck attached at each flute along intermediate supports with #12-24 x 1-1/4" HWH self-drilling screws. Panel laps stitched 24" o.c. with #1/4-14 x 7/8" HWH self-drilling screws. *The deck should record a Minimum Characteristic Resistance Force (MCRF) of 288 lbf. When tested with Firestone All Purpose (steel only), Firestone Heavy-Duty fasteners, or Firestone Concrete Drive (concrete only) in accordance with TAS 105.

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

System Type C(37): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1.5" thick	1 or 2 with 4 (for steel) 1 or 3 with 4 (for concrete)	See Below

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

Maximum Design Pressure: -67.5 psf attached at a fastening rate of 1:2.13 ft² (See General Limitation #7)
-75 psf attached at a fastening rate of 1:1.78 ft² (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete

System Type C(38): Membrane self-adhered over mechanically fastened insulation.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, GenFlex ISO Insulation Minimum 1-1/2" thick	N/A	N/A
(Optional) Tapered ISO 95+ GL, Tapered GenFlex ISO Insulation Minimum 1/2" thick with a 1/4" taper	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (cover board)	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck Prime, SECUROCK Gypsum Fiber Roof Board Minimum 1/4" thick	1 or 3 with 4	1:2 ft ²
ISOGARD HD Composite, ISO 95+ GL, GenFlex HD Composite ISO, GenFlex ISO Insulation Minimum 1-1/2" thick	1 or 3 with 4	1:2 ft ²
RESISTA, Coated Glass Facer Minimum 1" thick	1 or 3 with 4	1:2 ft ²
Plywood Minimum 19/32 thick	1 or 3 with 4	1:2 ft ²
Plywood Minimum 19/32" thick	1 or 3 with 4	1:2 ft ²

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

Maximum Design Pressure: -45.0 psf (See General Limitation 9)

Membrane Type: Single Ply, TPO

Deck Type 7I: Recover, Insulated

Deck Description: Min. 2500 psi structural concrete or min. 22 ga., Type B, Grade 33 steel deck secured to supports spaced 6 ft. o.c. with Traxx/5 fasteners spaced 6" o.c. at the supports (one fastener installed at each bearing attachment point) and Traxx/1 fasteners 30" o.c. at the side laps.

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

System Type C(39): Membrane self-adhered over mechanically fastened insulation.

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

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISOGARD HD, GenFlex HD ISO Minimum ½" thick	1 or 2 with 4 (for steel) 1 or 3 with 4 (for concrete)	1:4 ft ²
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1" thick	1 or 2 with 4 (for steel) 1 or 3 with 4 (for concrete)	1:4 ft ²
SECUROCK Gypsum Fiber Roof Board Minimum 1/2" thick	1 or 2 with 4 (for steel) 1 or 3 with 4 (for concrete)	1:4 ft ²
DensDeck Prime Minimum ¼" thick	1 or 2 with 4 (for steel) 1 or 3 with 4 (for concrete)	1:4 ft ²
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2" thick	1 or 2 with 4 (for steel) 1 or 3 with 4 (for concrete)	1:4 ft ²

Note: All layers shall be simultaneously fastened; see top layer below 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. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

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

RECOVER SYSTEM LIMITATIONS:

1. All System Limitations and General Limitations shall apply. See specific deck type Notice of Acceptance for deck type System Limitations.
2. All assemblies listed herein shall be installed in compliance with the applicable sections of FBC 1521. Uplift performance of assemblies bonded to existing roofing system shall be verified per 1521.10. Uplift performance of assemblies mechanically attached through existing roofing system shall be verified per 1521.11.

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 Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE



NOA-No.: 23-0613.33
Expiration Date: 07/25/24
Approval Date: 08/24/23
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