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

NOTICE OF ACCEPTANCE (NOA)

Firestone Building Products Company, LLC
250 West 96th Street
Indianapolis, IN 46260

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 Single Ply Roof Systems over Wood Decks.

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

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

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

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

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

This NOA renews and revises NOA No. 15-0224.13and consists of pages 1 through 28.
The submitted documentation was reviewed by Jorge L. Acebo.

MIAMI-DADE COUNTY APPROVED

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Single Ply Roofing
Material:	TPO
Deck Type:	Wood
Maximum Design Pressure:	-82.5 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specifications	Product Description
UltraPly TPO	Various	TAS 131-95 ASTM D6878	Reinforced TPO 0.045" to 0.080" thick membrane.
UltraPly TPO XR 100	Various	TAS 131-95 ASTM D6878	Reinforced TPO 0.045" membrane with 8 oz. fleece backing.
UltraPly TPO XR 115	Various	TAS 131-95 ASTM D6878	Reinforced TPO 0.060" membrane with 8 oz. fleece backing.
UltraPly TPO XR 135	Various	TAS 131-95 ASTM D6878	Reinforced TPO .080" membrane with 8 oz. fleece backing.
UltraPly TPO Reinforced Curb Corner	Various	TAS 131-95	TPO curb flashing.
UltraPly 18" Curb Flashing	Various	TAS 131-95	TPO curb flashing.
UltraPly TPO Inside/Outside Corner	Various	TAS 131-95	Molded TPO for corner flashing.
UltraPly TPO Large Pipe Flashing	Various	TAS 131-95	TPO flashing for large round penetrations.
UltraPly TPO T-Joint Cover	Various	TAS 131-95	TPO flashing for T-joints.
UltraPly TPO Penetration Kit	Various	TAS 131-95	A penetration sealing kit for UltraPly TPO.
UltraPly TPO Walkway Pad	Various	TAS 131-95	TPO walkway pad.
UltraPly TPO Coated Metal	Various	TAS 131-95	TPO laminated to hot-dipped galvanized steel for flashing.
UltraPly TPO Premium Walkway Pad	Various	TAS 131-95	TPO walkway pad.
UltraPly TPO Reinforced Split Pipe Boot	Various	TAS 131-95	TPO flashing for round penetrations 1" to 9" in diameter.
UltraPly TPO 8" Reinforced Cover Strip	Various	TAS 131-95	8" wide 60 mil TPO cover strip.
UltraPly TPO Universal Pipe Boot	Various	TAS 131-95	TPO flashing for round penetrations 1" to 6" in diameter.

Product	Dimensions	Test Specifications	Product Description
UltraPly TPO Unsupported Flashing	Various	TAS 131-95	Unreinforced TPO used for flashing.
TPO QuickSeam Flashing	5-3/4" x 100'	Proprietary	Flashing material with pre-applied adhesive.
Single Ply QuickPrime Primer	1 gallon	Proprietary	Primer for TPO QuickSeam Flashing.
Single-Ply LVOC Bonding Adhesive	5 gallon pail	Proprietary	Solvent based bonding adhesive.
Single-Ply LVOC Bonding Adhesive 1168	5 gallon pail	Proprietary	Solvent based bonding adhesive.
UltraPly Bonding Adhesive	5 gallon pail	Proprietary	Solvent based bonding adhesive.
Water Based Bonding Adhesive P	5 gallon pail	Proprietary	Water based bonding adhesive.
XR Stick Membrane Adhesive	5 gallon pail	Proprietary	A low-rise polyurethane, low VOC, membrane adhesive.
XR Bonding Adhesive	5 gallon pail	Proprietary	Solvent based adhesive.
I.S.O. Spray R	15 gallon pail 55 gallon drum	Proprietary	A two-part polyurethane adhesive.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ISO 95+ GL ISO 95+ GL Tapered	Polyisocyanurate foam insulation.	Firestone Building Products Co.
RESISTA RESISTA Tapered	Polyisocyanurate foam core laminated to a coated fiberglass facer.	Firestone Building Products Co.
ISOGARD HD Composite	Polyisocyanurate with a coated fiberglass facer composite insulation.	Firestone Building Products Co
ISOGARD HD	Polyisocyanurate with a coated fiberglass facer.	Firestone Building Products Co.
GenFlex ISO Insulation GenFlex ISO Insulation Tapered	Polyisocyanurate foam insulation.	Firestone Building Products Co
GenFlex HD ISO	Polyisocyanurate with a coated fiberglass facer.	Firestone Building Products Co
GenFlex HD Composite ISO	Polyisocyanurate with a coated fiberglass facer composite insulation.	Firestone Building Products Co
Coated Glass Facer Coated Glass Facer Tapered	Polyisocyanurate foam core laminated to a coated fiberglass facer.	Firestone Building Products Co
DensDeck	Fire resistant rated gypsum.	Georgia Pacific Gypsum LLC
DensDeck Prime	Silicon treated gypsum.	Georgia Pacific Gypsum LLC
SECUROCK Glass Mat Roof Board	Gypsum fiber roof board with fiberglass facer.	United States Gypsum Corporation
SECUROCK Gypsum Fiber Roof Board	Gypsum fiber roof board.	United States Gypsum Corporation

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	Firestone Building Products Co.
2.	Firestone All Purpose	#14 Fastener for steel, Wood, concrete decks.	N/A	Firestone Building Products Co.
3.	Firestone HD Seam Plate	Metal Seam Plate with Eyehooks.	2-3/8" diameter	Firestone Building Products Co.
4.	UltraPly TPO InvisiWeld Plates	High-performance TPO membrane fastening system.	3" diameter	Firestone Building Products Co.
5.	Insulation Fastening Plate	Insulation plate for use with Firestone Fasteners.	3" diameter	Firestone Building Products Co.
6.	InvisiWeld-S Plates	Induction welding plate.	3" diameter	Firestone Building Products Co.
7.	PermaMop	Roofing Asphalt	100 lb. container	Owens Corning

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Description	Date
Underwriters Laboratories Inc.	01NK17982	UL790	06/05/01
	00NK43467	UL790	01/22/01
	99NK5401	UL790	08/17/99
	99NK3276	UL790	03/30/99
	98NK39140	UL790	05/13/99
	R9516	UL790	03/22/05
	10NK13003	UL1897/TAS 114-J	07/17/12
Factory Mutual Research Corporation	3006983	4470	02/08/00
	3004249	4470	11/03/99
	3003830	4470	05/26/99
	3001925	4470	05/24/99
	3014031	4470	07/22/02
	3014918	4470	12/17/03
	3012931	4470	04/04/04
	3016670	4470	04/29/04
	3017120	4470	04/30/04
	3020394	4470	09/03/04
	3022988	4470	01/28/05
	3051348	4470	01/13/14
	3019991	4470	09/20/05
Atlantic & Caribbean Roof Consulting, LLC	ACRC 06-030	TAS 114-J	08/21/06
Trinity¦ERD	F8960.04.08-R1	TAS 114-F	06/23/08
	F8300.03.09-R2	TAS 131/ASTM D6878	03/25/09
	F8300.11.08-R3	TAS 131/ASTM D6878	02/25/11
PRI Construction Materials Technologies, LLC	FBP-122-02-01.1	TAS 114-J	07/23/13
	FBP-145-02-01	TAS 131/ASTM D6878	06/26/14
	FBP-220-02-01.1	TAS 114-J	01/29/15
	FBP-213-02-01	TAS 114-J	04/28/14
	FBP-125-02-01	TAS 114-C	07/23/13
	FBP-239-02-01	TAS 114-J	07/15/15
	FBP-233-02-01	TAS 114-J	06/22/16
	FBP-233-02-02	TAS 114-C	04/03/15
	FBP-044-02-01.8	TAS 114-D, H, J TAS 117-B	02/04/16
	FBP-165-02-01A	TAS 114-J	04/28/14
	FBP-094-02-01	TAS 131/ASTM D6878	11/20/13
	FBP-063-02-01	TAS 114-E	07/10/12
	FBP-196-02-04.1	TAS 114-J	10/21/14
	FBP-324-02-01	TAS 117-B	03/21/17
	FBP-230-02-01	TAS 114-J	04/02/15

APPROVED ASSEMBLIES:

Membrane Type: Single Ply, TPO

Deck Type 1I: Wood, Insulated

Deck Description: 19/32" or greater plywood attached to min. 2" x 4" supports spaced max. 24" with 0.113-inch x 2-3/8-inch ring shank nails spaced 6" o.c. at the perimeter of plywood and spaced 6" o.c. at the field of plywood.

System Type C(1): Membrane induction welded over mechanically attached 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**
RESISTA, Coated Glass Facer, ISO 95+ GL, GenFlex ISO Insulation Minimum 1" thick	**NA**	**NA**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
DensDeck, SECUROCK Glass Mat Roof Board, SECUROCK Gypsum Fiber Roof Board Minimum 1/4" thick	**1 with 4 or 6**	**1:4 ft²**
ISOGARD HD, GenFlex HD ISO Minimum ½" thick	**1 with 4 or 6**	**1:4 ft²**
RESISTA, Coated Glass Facer Minimum 1" thick	**1 with 4 or 6**	**1:4 ft²**
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2" thick	**1 with 4 or 6**	**1:4 ft²**

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 shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Minimum 45 mil UltraPly TPO membrane induction welded at each UltraPly TPO InvisiWeld Plate or InvisiWeld-S Plate. The 2" wide side laps are sealed with a minimum 1.5" heat weld.

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

Membrane Type: Single Ply, TPO

Deck Type 1I: Wood, Insulated

Deck Description: 19/32" or greater plywood attached to min. 2" x 4" supports spaced max. 24" with 0.113-inch x 2-3/8-inch ring shank nails spaced 6" o.c. at the perimeter of plywood and spaced 6" o.c. at the field of plywood.

System Type C(2): Membrane adhered over mechanically attached 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/ft^2**
RESISTA, Coated Glass Facer, ISO 95+ GL, GenFlex ISO Insulation Minimum 1/2" thick	**NA**	**NA**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck Prime, SECUROCK Gypsum Fiber Roof Board Minimum 1/2" thick	**1 or 2 with 5**	**1:2.7 ft^2**
RESISTA, Coated Glass Facer Minimum 2" thick	**1 or 2 with 5**	**1:2.7 ft^2**
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2" thick	**1 or 2 with 5**	**1:2.7 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 shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Minimum 60 mil UltraPly TPO membrane is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive or Single-Ply Bonding Adhesive LVOC 1168 applied at a rate of 45 – 60 ft^2/gal. or Water Based Bonding Adhesive P applied at a rate of 100-120 ft^2/gal. The 2" wide side laps are sealed with a minimum 1.5" heat weld.

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

Membrane Type: Single Ply, TPO

Deck Type 1I: Wood, Insulated

Deck Description: 19/32" or greater plywood attached to min. 2" x 4" supports spaced max. 24" with 0.113-inch x 2-3/8-inch ring shank nails spaced 6" o.c. at the perimeter of plywood and spaced 6" o.c. at the field of plywood.

System Type C(3): Membrane adhered over mechanically attached 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/ft^2**
RESISTA, Coated Glass Facer, ISO 95+ GL, GenFlex ISO Insulation Minimum 1" thick	**NA**	**NA**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK Gypsum Fiber Roof Board Minimum 1/2" thick	**1 or 2 with 5**	**1:1.78 ft^2**
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2" thick	**1 or 2 with 5**	**1:1.78 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 shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Minimum 45 mil UltraPly TPO membrane is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive or Single-Ply Bonding Adhesive LVOC 1168 applied at a rate of 45 – 60 ft^2/gal. The 2" wide side laps are sealed with a minimum 1.5" heat weld.
Or
Minimum UltraPly TPO XR 100 membrane fully adhered to SECUROCK Gypsum Fiber Roof Board Only with XR Bonding Adhesive applied at a rate of 70 to 90 ft^2/gal. to the substrate only. The 2" wide side laps are sealed with a minimum 1.5" heat weld.
Or
Minimum UltraPly TPO XR 100 membrane fully adhered to SECUROCK Gypsum Fiber Roof Board Only with Owens Corning PermaMop Asphalt or ASTM D 312, Type IV Asphalt applied at a rate of 25 to 40 lbs./100 ft^2. The 2" wide side laps are sealed with a minimum 1.5" heat weld.

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

Membrane Type: Single Ply, TPO

Deck Type 1I: Wood, Insulated

Deck Description: 19/32" or greater plywood attached to min. 2" x 4" supports spaced max. 24" with 0.113-inch x 2-3/8-inch ring shank nails spaced 6" o.c. at the perimeter of plywood and spaced 6" o.c. at the field of plywood.

System Type C(4): Membrane adhered over mechanically attached 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/ft^2**
RESISTA, Coated Glass Facer, ISO 95+ GL, GenFlex ISO Insulation Minimum 1" thick	**NA**	**NA**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
RESISTA, Coated Glass Facer, Minimum 1" thick	**1 or 2 with 5**	**1:1.6 ft^2**
ISO 95+ GL, GenFlex ISO Insulation, ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2" thick	**1 or 2 with 5**	**1:1.6 ft^2**
DensDeck Prime, SECUROCK Gypsum Fiber Roof Board Minimum ½" thick	**1 or 2 with 5**	**1:1.6 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 shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Minimum 45 mil UltraPly TPO membrane is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 45 – 60 ft^2/gal. The 2" wide side laps are sealed with a minimum 1.5" heat weld.

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

Membrane Type: Single Ply, TPO

Deck Type 1I: Wood, Insulated

Deck Description: 19/32" or greater plywood attached to min. 2” x 4” supports spaced max. 24” with 0.113-inch x 2-3/8-inch ring shank nails spaced 6” o.c. at the perimeter of plywood and spaced 6” o.c. at the field of plywood.

System Type C(5): Membrane adhered over mechanically attached 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/ft^2**
RESISTA, Coated Glass Facer, ISO 95+ GL, GenFlex ISO Insulation Minimum 1” thick	**NA**	**NA**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2” thick	**1 or 2 with 5**	**1:2.67ft^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 shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Minimum 45 mil UltraPly TPO membrane is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 45 – 60 ft^2/gal. or Water Based Bonding Adhesive P applied at a rate of 100-120 ft^2/gal. The 2” wide side laps are sealed with a minimum 1.5” heat weld.
Or
Minimum UltraPly TPO XR 100 membrane adhered with XR Stick Membrane Adhesive or ISO Spray R applied in ¾” to 1” wide ribbons spaced 12” o.c. The 2” wide side laps are sealed with a minimum 1.5” heat weld.

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

Membrane Type: Single Ply, TPO

Deck Type 1I: Wood, Insulated

Deck Description: 19/32" or greater plywood attached to min. 2" x 4" supports spaced max. 24" with 0.113-inch x 2-3/8-inch ring shank nails spaced 6" o.c. at the perimeter of plywood and spaced 12" o.c. at the field of plywood.

System Type C(6): Membrane adhered over mechanically attached 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/ft^2**
RESISTA, Coated Glass Facer, ISO 95+ GL, GenFlex ISO Insulation Minimum 1" thick	**NA**	**NA**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK Gypsum Fiber Roof Board Minimum 1/4" thick	**1 or 2 with 5**	**1:1.6 ft^2**
RESISTA, Coated Glass Facer Minimum 1" thick	**1 or 2 with 5**	**1:1.6 ft^2**
ISO 95+ GL, ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2" thick	**1 or 2 with 5**	**1:1.6 ft^2**
DensDeck Prime Minimum ½" thick	**1 or 2 with 5**	**1:1.6 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 shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Minimum 45 mil UltraPly TPO membrane is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 45 – 60 ft^2/gal. or Water Based Bonding Adhesive P applied at a rate of 100-120 ft^2/gal. The 2" wide side laps are sealed with a minimum 1.5" heat weld.
Or
Minimum UltraPly TPO XR 100 membrane adhered with XR Stick Membrane Adhesive or ISO Spray R applied in ¾" to 1" wide ribbons spaced 12" o.c. The 2" wide side laps are sealed with a minimum 1.5" heat weld.
Or

Membrane: (Continued)	Minimum UltraPly TPO XR 100 membrane fully adhered to SECUROCK Gypsum Fiber Roof Board or DensDeck Prime Only with Owens Corning PermaMop Asphalt or ASTM D 312, Type IV Asphalt applied at a rate of 25 to 40 lbs./100 ft^2. The 2" wide side laps are sealed with a minimum 1.5" heat weld. Or Minimum UltraPly TPO XR 100 membrane fully adhered to SECUROCK Gypsum Fiber Roof Boards and DensDeck Prime only with XR Bonding Adhesive applied at a rate of 70 to 90 ft^2/gal. applied to substrate only. The 2" wide side laps are sealed with a minimum 1.5" heat weld.
Maximum Design Pressure:	**-45 psf. (See General Limitation #7)**

Membrane Type: Single Ply, TPO

Deck Type 1I: Wood, Insulated

Deck Description: 19/32" or greater plywood attached to min. 2" x 4" supports spaced max. 24" with 0.113-inch x 2-3/8-inch ring shank nails spaced 6" o.c. at the perimeter of plywood and spaced 6" o.c. at the field of plywood.

System Type C(7): Membrane adhered over mechanically attached 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/ft^2**
RESISTA, Coated Glass Facer, ISO 95+ GL, GenFlex ISO Insulation		
Minimum 1/2" thick	**NA**	**NA**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK Gypsum Fiber Roof Board, DensDeck Prime		
Minimum 1/4" thick	**1 or 2 with 5**	**1:1.78 ft^2**
RESISTA, Coated Glass Facer,		
Minimum 1" thick	**1 or 2 with 5**	**1:1.78 ft^2**
ISOGARD HD Composite, GenFlex HD Composite ISO, ISO 95+ GL, GenFlex ISO Insulation		
Minimum 1-1/2" thick	**1 or 2 with 5**	**1:1.78 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 shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Minimum 45 mil UltraPly TPO membrane is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 45 – 60 ft^2/gal. or Water Based Bonding Adhesive P applied at a rate of 100-120 ft^2/gal. The 2" wide side laps are sealed with a minimum 1.5" heat weld.
Or
Minimum UltraPly TPO XR 100 membrane fully adhered to SECUROCK Gypsum Fiber Roof Boards and DensDeck Prime only with XR Bonding Adhesive applied at a rate of 70 to 90 ft^2/gal. to the substrate only. The 2" wide side laps are sealed with a minimum 1.5" heat weld.
Or
Minimum UltraPly TPO XR 100 membrane fully adhered to SECUROCK Gypsum Fiber Roof Board or DensDeck Prime Only with Owens Corning PermaMop Asphalt or ASTM D 312, Type IV Asphalt applied at a rate of 25 to 40 lbs./100 ft^2. The 2" wide side laps are sealed with a minimum 1.5" heat weld.
Or

Membrane: (Continued)	Minimum UltraPly TPO XR 100 membrane adhered with XR Stick Membrane Adhesive or ISO Spray R applied in ¾" to 1" wide ribbons spaced 12" o.c. The 2" wide side laps are sealed with a minimum 1.5" heat weld.
Maximum Design Pressure:	**-45 psf. (See General Limitation #7)**

Membrane Type: Single Ply, TPO

Deck Type 1I: Wood, Insulated

Deck Description: 19/32" or greater plywood attached to min. 2" x 4" supports spaced max. 24" with 0.113-inch x 2-3/8-inch ring shank nails spaced 6" o.c. at the perimeter of plywood and spaced 12" o.c. at the field of plywood.

System Type C(8): Membrane adhered over mechanically attached 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/ft^2**
RESISTA, Coated Glass Facer, ISO 95+ GL, GenFlex ISO Insulation Minimum 1" thick	**NA**	**NA**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK Gypsum Fiber Roof Board Minimum 1/2" thick	**1 or 2 with 5**	**1:2.13 ft^2**
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2" thick	**1 or 2 with 5**	**1:2.13 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 shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Minimum 45 mil UltraPly TPO membrane is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 45 – 60 ft^2/gal. The 2" wide side laps are sealed with a minimum 1.5" heat weld.
Or
Minimum UltraPly TPO XR 100 membrane fully adhered to SECUROCK Gypsum Fiber Roof Board Only Owens Corning PermaMop Asphalt or ASTM D 312, Type IV Asphalt applied at a rate of 25 to 40 lbs./100 ft^2. The 2" wide side laps are sealed with a minimum 1.5" heat weld.
Or
Minimum UltraPly TPO XR 100 membrane fully adhered to SECUROCK Gypsum Fiber Roof Boards only with XR Bonding Adhesive applied at a rate of 70 to 90 ft^2/gal. to the substrate only. The 2" wide side laps are sealed with a minimum 1.5" heat weld.

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

Membrane Type: Single Ply, TPO

Deck Type 1I: Wood, Insulated

Deck Description: 19/32" or greater plywood attached to min. 2" x 4" supports spaced max. 24" with 0.113-inch x 2-3/8-inch ring shank nails spaced 6" o.c. at the perimeter of plywood and spaced 6" o.c. at the field of plywood.

System Type C(9): Membrane adhered over mechanically attached 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/ft^2**
RESISTA, Coated Glass Facer, ISO 95+ GL, GenFlex ISO Insulation Minimum 1/2" thick	**NA**	**NA**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
RESISTA, Coated Glass Facer, Minimum 1-1/2" thick	**1 or 2 with 5**	**1:1.78 ft^2**
ISO 95+ GL, GenFlex ISO Insulation Minimum 2" thick	**1 or 2 with 5**	**1:1.78 ft^2**
DensDeck Prime, SECUROCK Gypsum Fiber Roof Board Minimum ½" thick	**1 or 2 with 5**	**1:1.78 ft^2**
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2" thick	**1 or 2 with 5**	**1:1.78 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 shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Minimum 45 mil UltraPly TPO membrane is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 45 – 60 ft^2/gal. or Water Based Bonding Adhesive P applied at a rate of 100-120 ft^2/gal. The 2" wide side laps are sealed with a minimum 1.5" heat weld.
Or
Minimum UltraPly TPO XR 100 membrane adhered with XR Stick Membrane Adhesive or ISO Spray R applied in ¾" to 1" wide ribbons spaced 12" o.c. The 2" wide side laps are sealed with a minimum 1.5" heat weld.

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

Membrane Type: Single Ply, TPO

Deck Type 1I: Wood, 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 at the perimeter of plywood and spaced 6" o.c. at the field of plywood.

System Type C(10): Membrane adhered over mechanically attached 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/ft^2**
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/ft^2**
ISOGARD HD, GenFlex HD ISO Minimum 1/2" thick	**1 or 2 with 5**	**1:2.13 ft^2**
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated Glass Facer Minimum 1" thick	**1 or 2 with 5**	**1:2.13 ft^2**
DensDeck; DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/4" thick	**1 or 2 with 5**	**1:2.13 ft^2**
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1.5" thick	**1 or 2 with 5**	**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: Minimum 60 mil UltraPly TPO membrane is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 45 – 60 ft^2/gal. or Water Based Bonding Adhesive P applied at a rate of 100-120 ft^2/gal. The 2" wide side laps are sealed with a minimum 1.5" heat weld.

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

Membrane Type: Single Ply, TPO

Deck Type 1I: Wood, Insulated

Deck Description: 19/32" or greater plywood attached to min. 2" x 4" supports spaced max. 24" with 0.113-inch x 2-3/8-inch ring shank nails spaced 6" o.c. at the perimeter of plywood and spaced 6" o.c. at the field of plywood.

System Type C(11): Membrane induction welded over mechanically attached 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/ft^2**
RESISTA, Coated Glass Facer, ISO 95+ GL, GenFlex ISO Insulation		
Minimum 1" thick	**NA**	**NA**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck, SECUROCK Glass Mat Roof Board, SECUROCK Gypsum Fiber Roof Board		
Minimum 1/4" thick	**1 with 4 or 6**	**1:2.67 ft^2**
ISOGARD HD, GenFlex HD ISO		
Minimum ½" thick	**1 with 4 or 6**	**1:2.67 ft^2**
RESISTA, Coated Glass Facer		
Minimum 1" thick	**1 with 4 or 6**	**1:2.67 ft^2**
ISOGARD HD Composite, GenFlex HD Composite ISO		
Minimum 1-1/2" thick	**1 with 4 or 6**	**1:2.67 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 shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Minimum 45 mil UltraPly TPO membrane induction welded at each UltraPly TPO InvisiWeld Plate or InvisiWeld-S Plate. The 2" wide side laps are sealed with a minimum 1.5" heat weld.

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

Membrane Type: Single Ply, TPO

Deck Type 1I: Wood, Insulated

Deck Description: 19/32" or greater plywood attached to min. 2" x 4" supports spaced max. 24" with 0.113-inch x 2-3/8-inch ring shank nails spaced 6" o.c. at the perimeter of plywood and spaced 6" o.c. at the field of plywood.

System Type C(12): Membrane adhered over mechanically attached 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/ft^2**
RESISTA, Coated Glass Facer, ISO 95+ GL, GenFlex ISO Insulation Minimum 1/2" thick	**NA**	**NA**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck Prime, SECUROCK Gypsum Fiber Roof Board Minimum 1/2" thick	**1 or 2 with 5**	**1:1.78 ft^2**
RESISTA, Coated Glass Facer Minimum 2" thick	**1 or 2 with 5**	**1:1.78 ft^2**
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2" thick	**1 or 2 with 5**	**1:1.78 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 shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Minimum 60 mil UltraPly TPO membrane is fully adhered with UltraPly Bonding Adhesive, Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding Adhesive 1168 applied at a rate of 45 – 60 ft^2/gal. or Water Based Bonding Adhesive P applied at a rate of 100-120 ft^2/gal. The 2" wide side laps are sealed with a minimum 1.5" heat weld.
Or
Minimum UltraPly TPO XR 100 membrane adhered with XR Stick Membrane Adhesive or ISO Spray R applied in ¾" to 1" wide ribbons spaced 12" o.c. The 2" wide side laps are sealed with a minimum 1.5" heat weld.
Or
Minimum UltraPly TPO XR 100 membrane fully adhered to SECUROCK Gypsum Fiber Roof Board or DensDeck Prime Only Owens Corning PermaMop Asphalt or ASTM D 312, Type IV Asphalt applied at a rate of 25 to 40 lbs./100 ft^2. The 2" wide side laps are sealed with a minimum 1.5" heat weld.
Or

Membrane: (Continued)	Minimum UltraPly TPO XR 100 membrane fully adhered to SECUROCK Gypsum Fiber Roof Board or DensDeck Prime Only with XR Bonding Adhesive applied at a rate of 70 to 90 ft^2/gal. to the substrate only. The 2" wide side laps are sealed with a minimum 1.5" heat weld.
Maximum Design Pressure:	**-52.5 psf. (See General Limitation #7)**

Membrane Type: Single Ply, TPO

Deck Type 1I: Wood, Insulated

Deck Description: 19/32" or greater plywood attached to min. 2" x 4" supports spaced max. 24" with 10d nails spaced 4" o.c. at the perimeter of plywood and 8d nails spaced 6" o.c. at the field of plywood.

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

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

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+GL, GenFlex ISO Insulation Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck, DensDeck Prime Minimum 0.25" thick	**N/A**	**N/A**

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of five (5) Heavy Duty fasteners and Insulation Fastening Plates per 4' X 8' insulation board. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Fire Barrier: None.

Membrane: Firestone minimum 45 mil UltraPly TPO reinforced membrane attached to deck through the preliminary attached insulation as described below.

Membrane is mechanically attached using Firestone Heavy Duty Fasteners and Firestone HD Seam Plates 2-3/8" diameter spaced 6" o.c. within minimum 5.5" wide laps. Laps are spaced maximum 90" o.c. and sealed with minimum 5" heat weld.

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

Membrane Type: Single Ply, TPO

Deck Type 1I: Wood, Insulated

Deck Description: 19/32" or greater plywood attached to min. 2" x 4" supports spaced max. 24" with 0.113-inch x 2-3/8-inch ring shank nails spaced 6" o.c. at the perimeter of plywood and spaced 6" o.c. at the field of plywood.

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

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

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+GL, GenFlex ISO Insulation, RESISTA, Coated Glass Facer, Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck, SECUROCK Glass Mat Roof Board, SECUROCK Gypsum Roof Board Minimum 1/4" thick	**N/A**	**N/A**
RESISTA, Coated Glass Facer, Minimum 1" thick	**N/A**	**N/A**
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 2" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and densities. Please refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane: Minimum 60 mil UltraPly TPO membrane (120" wide) attached to deck through the preliminary attached insulation as described below.

Membrane is mechanically attached using Firestone Heavy Duty Fasteners and Firestone HD Seam Plates fastened 5" o.c. in rows spaced 114" o.c. The 6 inch wide side laps are sealed with minimum 1.5" heat weld.

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

Membrane Type: Single Ply, TPO

Deck Type 1I: Wood, Insulated

Deck Description: 5/8" or greater plywood attached to min. 2" x 4" supports spaced max. 24" with 0.113-inch x 2-3/8-inch ring shank nails spaced 6" o.c. at the perimeter of plywood and spaced 6" o.c. at the field of plywood.

System Type D(3): Membrane induction welded over preliminary fastened insulation.

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

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISO 95+GL, GenFlex ISO Insulation, RESISTA, Coated Glass Facer, Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck, SECUROCK Gypsum Roof Board Minimum 1/4" thick	**N/A**	**N/A**
RESISTA, Coated Glass Facer, ISO 95+ GL, GenFlex ISO Insulation Minimum 1" thick	**N/A**	**N/A**
ISOGARD HD Composite, GenFlex HD Composite ISO Minimum 1-1/2" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and densities. Please refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane: Minimum 45 mil UltraPly TPO membrane attached to support joists through the preliminary attached insulation as described below.

Firestone UltraPly TPO InvisiWeld Plates or TPO InvisiWeld-S Plates are placed over substrate and fastened directly into the support joists using Firestone Heavy Duty Fasteners spaced 6" o.c. in rows of fasteners spaced 96" o.c. Membrane is installed over the Firestone UltraPly TPO InvisiWeld or InvisiWeld-S Plates and bonded to each plate. The 2" wide side laps are sealed with a minimum 1.5" heat weld.

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

Membrane Type:	Single Ply, TPO
Deck Type 1:	Wood, Non-Insulated
Deck Description:	5/8" Type B-C APA Rated plywood attached to wood joist having a maximum spacing of 24” with 8d nails 2.5 in. long spaced max. 6” o.c.
System Type E(1):	Membrane mechanically attached.

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.

(Optional) Slip Sheet:	Miami-Dade Approved ASTM D226 Type II or ASTM D4869 Type IV membranes.
Membrane:	Minimum 45 mil Firestone UltraPly TPO reinforced membrane attached to deck as described below. Membrane is mechanically attached using Firestone Heavy Duty Fasteners and Firestone HD Seam Plates spaced 6” o.c. within minimum 6” wide laps. The side laps are spaced maximum 72” o.c. and sealed with minimum 1.5” heat weld.
Maximum Design Pressure:	**-45 psf. (See General Limitation #7)**

Membrane Type:	Single Ply, TPO
Deck Type 1:	Wood, Non-Insulated
Deck Description:	5/8" Type B-C APA Rated plywood attached to wood joist having a maximum spacing of 24” with 8d nails 2.5 in. long spaced max. 6” o.c.
System Type E(2):	Membrane induction welded.

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.

(Optional) Slip Sheet:	Miami-Dade Approved ASTM D226 Type II or ASTM D 4869 Type IV membranes.
Membrane:	Minimum 45 mil Firestone UltraPly TPO reinforced membrane attached to deck as described below. Firestone UltraPly TPO InvisiWeld Plates or InvisiWeld-S Plates are placed over substrate and fastened using Firestone Heavy Duty Fasteners spaced 6” o.c. in rows of fasteners spaced 72” o.c. Membrane is installed over the Firestone UltraPly TPO InvisiWeld or InvisiWeld-S Plates and bonded to each plate. The 2” wide side laps are sealed with a minimum 1.5” heat weld.
Maximum Design Pressure:	**-52.5 psf. (See General Limitation #7)**

Membrane Type:	Single Ply, TPO
Deck Type 1:	Wood, Non-Insulated
Deck Description:	5/8" Type B-C APA Rated plywood attached to wood joist having a maximum spacing of 24” with No. 8 deck screws 2.5 in. long spaced max. 6” o.c.
System Type E(3):	Membrane induction welded.

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.

(Optional) Slip Sheet:	Miami-Dade Approved ASTM D226 Type II or ASTM D4869 Type IV membranes.
Membrane:	Minimum 45 mil Firestone UltraPly TPO reinforced membrane attached to deck as described below. Firestone UltraPly TPO InvisiWeld Plates or TPO InvisiWeld-S Plates are placed over substrate and fastened using Firestone Heavy Duty Fasteners spaced 6” o.c. in rows of fasteners spaced 60” o.c. Membrane is installed over the Firestone UltraPly TPO InvisiWeld or InvisiWeld-S Plates and bonded to each plate. The 2” wide side laps are sealed with a minimum 1.5” heat weld.
Maximum Design Pressure:	**-82.5 psf. (See General Limitation #7)**

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