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)

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 & TPO XR Single Ply Roof Systems Over Lightweight Concrete Decks.

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

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

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

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

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

This NOA revises NOA No. 21-0211.01 and consists of pages 1 through 48.
The submitted documentation was reviewed by Jorge L. Acebo.

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Single Ply Roofing
Material: TPO
Deck Type: Lightweight Concrete
Maximum Design Pressure: -467.5 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specifications	Product Description
UltraPly TPO	Various	TAS 131 ASTM D6878	Reinforced TPO 045" to 080" thick membrane.
UltraPly TPO XR 100	Various	TAS 131 ASTM D6878	Reinforced Fleece-backed TPO.
UltraPly TPO XR 115	Various	TAS 131 ASTM D6878	Reinforced Fleece-backed TPO.
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	A 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	Unreinforced TPO used for flashing.

Product	Dimensions	Test Specifications	Product Description
XR Bonding Adhesive	5 gal. pail	Proprietary	Solvent based adhesive.
XR Stick Membrane Adhesive	5 gal. pail	Proprietary	A low-rise polyurethane, low VOC, membrane adhesive.
UltraPly Bonding Adhesive	5 gal. pail	Proprietary	Solvent based adhesive.
I.S.O. Stick	5 gal & 1500 ml	Proprietary	A dual component polyurethane adhesive.
I.S.O. Twin Pack Insulation Adhesive	5 gal & 1500 ml	Proprietary	A dual component polyurethane adhesive.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ISO 95+ GL ISO 95+ GL Tapered	Polyisocyanurate foam insulation	Holcim Solutions and Products US, LLC
ISOGARD HD	Polyisocyanurate with a coated fiberglass facer	Holcim Solutions and Products US, LLC
DensDeck Prime	Silicon treated gypsum	Georgia Pacific Gypsum 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.	Insulation Fastening Plate	Galvalume insulation plate	3” diameter	Holcim Solutions and Products US, LLC
3.	Metal Batten Bar	Galvalume AZ 55 batten	10’ length 1” width	Holcim Solutions and Products US, LLC
4.	Firestone Polymer Batten Strip	Polymer, corrosion free, batten strip.	250’ long, ¾” or 1” wide	Holcim Solutions and Products US, LLC
5.	1.7” Assembled LWC Base Ply Fastener	Fastener and Plate	2.7” head 1.7” length	Holcim Solutions and Products US, LLC

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Description	Date
UL LLC	R9516	UL 790	04/22/21
FM Approvals	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
	3014692	4470	08/05/03
	3033947	4470	05/29/09
	3040205	4470	06/08/10
	3051348	4470	01/13/14
Atlantic & Caribbean Roof Consulting, LLC	ACRC 05-002	TAS 114	01/18/05
	ACRC 02-002	TAS 114	01/07/03
	ACRC 05-001	TAS 114	01/18/05
Exterior Research & Design, LLC	02764.09.05	TAS 114	09/09/05
	02762.03.05	TAS 114	03/30/05
Trinity | ERD	F8300.07.08	TAS 131/ASTM D6878	07/30/08
	F8300.11.08-R3	TAS 131/ASTM D6878	02/25/11
	F11080.09.08	TAS 114	09/18/08
	F10980.09.08	TAS 114	09/17/08
	F45600.09.13-R1	TAS 131/ASTM D6878	12/30/13
PRI Construction Materials Technologies, LLC	FBP-054-02-02, R1	TAS 114 D	02/07/13
	FBP-069-02-01, R1	TAS 114 J	02/07/13
	FBP-070-02-01, R1	TAS 114 J	02/07/13
	FBP-044-02-01.9	TAS 114 H & J	06/01/17
	FBP-094-02-01	TAS 131/ASTM D6878	11/20/13
	FBP-063-02-01	TAS 114	07/10/12
	FBP-145-02-01	ASTM D6878/TAS 131	06/26/14
	FBP-198-02-01	ASTM D 4897	09/12/14
	FBP-214-02-01.1	ASTM C 1289	11/09/16
	FBP-214-02-02.1	ASTM C 1289	02/10/15
	FBP-280-02-01.1	ASTM C 1289	04/27/16
	FBP-315-02-01	ASTM C 1289	10/28/16
	FBP-324-02-01	TAS 117 (B) 95	03/21/17

DECK STRESS ANALYSIS CALCULATIONS/REPORTS

Engineer/Agency	Identifier	Assemblies	Date
FM Approval Deck Limitations	N/A	F(1), F(2), F(4), F(5), F(7)	01/01/13
Zachary R. Priest, P.E.	Signed/Sealed Calculations	A(7), A(8), A(9), A(10), A(11), A(12), A(13), A(14), A(15), A(16), E(1), E(2), F(3), F(17), F(18), F(19), F(20), F(21), F(22), F(23), F(24)	04/18/16

APPROVED ASSEMBLIES:

Membrane Type: Single Ply, TPO

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Minimum 420 psi Elastizell cast over structural concrete. A 1/8" thick slurry of Elastizell Lightweight Insulation Concrete is followed by 1" EPS board and a minimum 2" Lightweight Concrete top coat is applied.

System Type A(1): One or more layers of insulation adhered with approved adhesive; 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 the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the LWC deck with I.S.O. Stick applied in ¾" to 1" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO membrane fully adhered to the insulation with UltraPly Bonding Adhesive at rate of 45-60 ft^2 /gal. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Maximum Design Pressure: -152.5 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Minimum 420 psi Elastizell cast over structural concrete. A 1/8" thick slurry of Elastizell Lightweight Insulation Concrete is followed by 1" EPS board and a minimum 2" Lightweight Concrete top coat is applied.

System Type A(2): One or more layers of insulation adhered with approved adhesive; 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 the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISOGARD HD Minimum 1/2" thick	**N/A**	**N/A**

Note: All insulation All insulation shall be Twin Pack Insulation Adhesive applied in ½ - ¾ in. ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO membrane fully adhered to the insulation with UltraPly Bonding Adhesive at rate of 45-60 ft^2 /gal. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Maximum Design Pressure: -152.5 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Minimum 280 psi Celcore MF Cellular Concrete is cast over structural concrete. Minimum 1/8" slurry coat is followed with 1" EPS board and a 2" top coat is applied. Curing compound is applied after setting of top coat at 300ft^2/gal.

System Type A(3): One or more layers of insulation adhered with approved adhesive; 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 the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the LWC deck with I.S.O. Stick applied in ¾" to 1" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO membrane adhered with UltraPly Bonding Adhesive at a rate of 45-60 ft^2/gal. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Maximum Design Pressure: -130 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Minimum 280 psi Celcore MF Cellular Concrete is cast over structural concrete. Minimum 1/8" slurry coat is followed with 1" EPS board and a 2" top coat is applied. Curing compound is applied after setting of top coat at 300 ft^2/gal.

System Type A(4): One or more layers of insulation adhered with approved adhesive; 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 the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISOGARD HD Minimum 1/2" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the LWC deck with I.S.O. Twin Pack Insulation Adhesive applied in ½ - ¾ in. ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO membrane adhered with UltraPly Bonding Adhesive at a rate of 45-60 ft^2/gal. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Maximum Design Pressure: -130 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description Minimum 200 psi Generic Cellular Lightweight Concrete is cast over structural concrete. Minimum 1/8" slurry coat is followed with 1" EPS board and a 2" top coat is applied. *Lightweight Concrete should record a Minimum Characteristic Resistance Force (MCRF) of 36.7 lbf. when tested with 1.7" LWC Base Ply fasteners in accordance with TAS 105.

System Type A(5): One or more layers of insulation adhered with approved adhesive; 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 the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the LWC deck with I.S.O. Stick applied in ¾ - 1" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane UltraPly TPO membrane adhered with UltraPly Bonding Adhesive at a rate of 45-60 ft^2/gal. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Maximum Design Pressure: -145 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Minimum 200 psi Generic Cellular Lightweight Concrete is cast over structural concrete. Minimum 1/8" slurry coat is followed with 1" EPS board and a 2" top coat is applied. *Lightweight Concrete should record a Minimum Characteristic Resistance Force (MCRF) of 36.7 lbf. when tested with 1.7" LWC Base Ply fasteners in accordance with TAS 105.

System Type A(6): One or more layers of insulation adhered with approved adhesive; 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 the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISOGARD HD Minimum ½" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the LWC deck with I.S.O. Twin Pack Insulation Adhesive applied in ½ - ¾ in. ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO membrane adhered with UltraPly Bonding Adhesive at a rate of 45-60 ft^2/gal. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Maximum Design Pressure: -145 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Minimum 420 psi Elastizell cast over 22 ga. Steel Deck. A 1/8" thick slurry of Elastizell Lightweight Insulation Concrete is followed by 1" EPS board and a minimum 2" Lightweight Concrete top coat is applied. Supplemental attachment includes HD fasteners with 3" Insulation Fastening Plates through Lightweight Concrete to steel deck at 1 per 2 ft^2.

Deck: Min. 22 ga., type B, G-90 finished, Grade 80, 1.5" vented steel deck attached to supports at 6 ft. spans using #12-24 x 1.25" hex head Tek screws spaced 6" o.c. (each flute) Side laps attached with #14 x 1" hex head Tek screws spaced 12" o.c.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type A(7): One or more layers of insulation adhered with approved adhesive; 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 the following insulations:

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the LWC deck with I.S.O. Stick applied in ¾" - 1" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO membrane fully adhered to the insulation with UltraPly Bonding Adhesive at rate of 45-60 ft^2 /gal. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Maximum Design Pressure: -135 psf. (See General Limitation #9)

Membrane Type:	Single Ply, TPO
Deck Type 4I:	Lightweight Concrete, Insulated
Deck Description:	Minimum 420 psi Elastizell cast over 22 ga. Steel Deck; A 1/8" thick slurry of Elastizell Lightweight Insulation Concrete is followed by 1" EPS board and a minimum 2" Lightweight Concrete top coat is applied. Supplemental attachment includes HD fasteners with 3" Insulation Fastening Plates through Lightweight Concrete to steel deck at 1 per 2 ft^2.
Deck:	Min. 22 ga., type B, G-90 finished, Grade 80, 1.5" vented steel deck attached to supports at 6 ft. spans using #12-24 x 1.25" hex head Tek screws spaced 6" o.c. (each flute) Side laps attached with #14 x 1" hex head Tek screws spaced 12" o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
System Type A(8):	One or more layers of insulation adhered with approved adhesive; 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 the following insulations:

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISOGARD HD Minimum ½" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the LWC deck with I.S.O. Twin Pack Insulation Adhesive applied in ½ - ¾ in. ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	UltraPly TPO membrane fully adhered to the insulation with UltraPly Bonding Adhesive at rate of 45-60 ft^2 /gal. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Maximum Design Pressure:	-135 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Minimum 420 psi Elastizell cast over 22 ga. Steel Deck. A 1/8" thick slurry of Elastizell Lightweight Insulation Concrete is followed by 1" EPS board and a minimum 2" Lightweight Concrete top coat is applied.

Deck: Min. 22 ga., type B, G-90 finished, Grade 33, 1.5" vented steel deck attached to supports at 5 ft. spans using #14 hex head Tek screws spaced 6" o.c. (each flute) Side laps attached with #14 x 1" hex head Tek screws spaced 6" o.c.

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

System Type A(9): One or more layers of insulation adhered with approved adhesive; 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 the following insulations:

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the LWC deck with I.S.O. Stick applied in ¾" - 1" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO membrane fully adhered to the insulation with UltraPly Bonding Adhesive at rate of 45-60 ft^2 /gal. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Maximum Design Pressure: -67.5 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Minimum 420 psi Elastizell cast over 22 ga. Steel Deck. A 1/8" thick slurry of Elastizell Lightweight Insulation Concrete with is followed by 1" EPS board and a minimum 2" Lightweight Concrete top coat applied is applied.

Deck: Min. 22 ga., type B, G-90 finished, Grade 33, 1.5" vented steel deck attached to supports at 5 ft. spans using #14 hex head Tek screws spaced 6" o.c. (each flute) Side laps attached wft #14 x 1" hex head Tek screws spaced 6" o.c.

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

System Type A(10): One or more layers of insulation adhered with approved adhesive; 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 the following insulations:

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISOGARD HD Minimum ½" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the LWC deck with I.S.O. Twin Pack Insulation Adhesive applied in ½ - ¾ in. ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO membrane fully adhered to the insulation with UltraPly Bonding Adhesive at rate of 45-60 ft^2 /gal. The 2roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Maximum Design Pressure: -67.5 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Minimum 200 psi Generic Cellular Lightweight Concrete cast over structural concrete or steel deck. A 1/8" thick slurry of cellular lightweight concrete is followed by 1" EPS board and a minimum 2" Lightweight Concrete top coat is applied. *Lightweight Concrete should record a Minimum Characteristic Resistance Force (MCRF) of 36.7 lbf when tested with 1.7" LWC Base Ply fasteners in accordance with TAS 105. Supplemental attachment includes Firestone HD fasteners with Insulation Fastening Plates through Lightweight Concrete to steel deck at 1 per 2 ft^2

Deck: Min. 22 ga., type B, G-90 finished, Grade 33, 1.5" vented steel deck attached to supports at 6 ft. spans using Tek/5 screws spaced 6" o.c. (each flute) Side laps attached with Tek/1 screws spaced 12" o.c.

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

System Type A(11): One or more layers of insulation adhered with approved adhesive; 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 the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the LWC deck with I.S.O. Stick applied in ¾ - 1in. ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO membrane fully adhered with UltraPly Bonding Adhesive at a rate of 45-60 ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Maximum Design Pressure: -75 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Minimum 200 psi Generic Cellular Lightweight Concrete cast over structural concrete or steel deck. A 1/8" thick slurry of cellular lightweight concrete is followed by 1" EPS board and a minimum 2" Lightweight Concrete top coat is applied. *Lightweight Concrete should record a Minimum Characteristic Resistance Force (MCRF) of 100 lbf when tested with 1.7" LWC Base Ply fasteners in accordance with TAS 105. Supplemental attachment includes Firestone HD fasteners with Insulation Fastening Plates through Lightweight Concrete to steel deck at 1 per 2 ft^2

Deck: Min. 22 ga., type B, G-90 finished, Grade 33, 1.5" vented steel deck attached to supports at 6 ft. spans using Tek/5 screws spaced 6" o.c. (each flute) Side laps attached with Tek/1 screws spaced 12" o.c.

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

System Type A(12): One or more layers of insulation adhered with approved adhesive; 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 the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISOGARD HD Minimum ½" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the LWC deck with I.S.O. Twin Pack Insulation Adhesive applied in ½ - ¾ in. ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO membrane fully adhered with UltraPly Bonding Adhesive at a rate of 45-60 ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Maximum Design Pressure: -75 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Minimum 280 psi Celcore MF cast over steel deck. A 1/8" thick slurry of Celcore MF Cellular concrete with Celcore PVA Curing Compound applied at A rate of 0.33 gal/sq and is followed by 1" EPS Holey Board and a 2" Lightweight Concrete top coat. Supplemental attachment includes Firestone HD fasteners with Insulation Fastening Plates through Lightweight Concrete to steel deck at 1per 2 ft^2

Deck: Min. 22 ga., type B, G-90 finished, Grade 40, 1.5" vented steel deck attached to supports at 6 ft. spans using Tek/5 screws spaced 6" o.c. (each flute) Side laps attached with Tek/1 screws spaced 12" o.c.

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

System Type A(13): One or more layers of insulation adhered with approved adhesive; 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 the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the LWC deck with I.S.O. Stick applied in ¾" – 1" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO membrane fully adhered with UltraPly Bonding Adhesive at a Rate of 45-60 ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Maximum Design Pressure: -90 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Minimum 280 psi Celcore MF cast over steel deck structural concrete deck. A 1/8" thick slurry of Celcore MF Cellular concrete is applied to the steel deckand is followed by 1" EPS Holey Board and a 2" Lightweight Concrete top coat. Celcore PVA Curing Compound applied at a rate of 0.33 gal/sq after setting of top coat. Supplemental attachment includes Firestone HD fasteners with Insulation Fastening Plates through Lightweight Concrete to steel deck at 1 per 2 ft^2

Deck: Min. 22 ga., type B, G-90 finished, Grade 40, 1.5" vented steel deck attached to supports at 6 ft. spans using Tek/5 screws spaced 6" o.c. (each flute) Side laps attached with Tek/1 screws spaced 12" o.c.

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

System Type A(14): One or more layers of insulation adhered with approved adhesive; 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 the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISOGARD HD		
Minimum 1/2" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the LWC deck with I.S.O. Twin Pack Insulation Adhesive applied in ½ - ¾ in. ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO membrane fully adhered with UltraPly Bonding Adhesive at a rate of 45-60 ft^2/gallon. The 2" wide roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Maximum Design Pressure: -90 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Minimum 280 psi Celcore MF cast over steel deck. A 1/8" thick slurry of Celcore MF Cellular Concrete is cast onto steel deck and is followed by 1" EPS Holey Board. A minimum 2" Lightweight Concrete top coat is applied. Celcore PVA Curing Compound is applied at a rate of 0.33 gal/sq after setting of top coat.

Deck: Min. 22 ga., type B, G-90 finished, Grade 33, 1.5" vented steel deck attached To supports at 6 ft. spans using Tek/5 screws spaced 6" o.c. (each flute) Side laps attached with Tek/1 screws spaced 12" o.c.

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

System Type A(15): One or more layers of insulation adhered with approved adhesive; 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 the following insulations:

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the LWC deck with I.S.O. Stick applied in ¾" - 1" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO membrane fully adhered with UltraPly Bonding Adhesive at a rate of 45-60 ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

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

Membrane Type: Single Ply, TPO

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Minimum 280 psi Celcore MF cast over steel deck. A 1/8" thick slurry of Celcore MF Cellular Concrete followed by 1" EPS Holey Board. A minimum 2" Celcore MF Lightweight Concrete top coat is applied. Celcore PVA Curing Compound is applied at a rate of 0.33 gal/sq after setting of top coat.

Deck: Min. 22 ga., type B, G-90 finished, Grade 33, 1.5" vented steel deck attached to supports at 6 ft. spans using Tek/5 screws spaced 6" o.c. (each flute) Side laps attached with Tek/1 screws spaced 12" o.c.

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

System Type A(16): One or more layers of insulation adhered with approved adhesive; 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 the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISOGARD HD Minimum ½" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the LWC deck with I.S.O. Twin Pack Insulation Adhesive applied in ½ - ¾ in. ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: UltraPly TPO membrane fully adhered with UltraPly Bonding Adhesive at a rate of 45-60 ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5" heat weld.

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

Membrane Type:	Single Ply, TPO
Deck Type 4:	Lightweight Concrete, Non-insulated
Deck Description:	Minimum 330 psi Generic Cellular Lightweight Concrete is cast over steel deck. Minimum 1/8" slurry coat is followed with 1" EPS board and a 2" top coat is applied. *Lightweight concrete should record a Minimum Characteristic Resistance Force (MCRF) of 390 lbf when tested Firestone Heavy-Duty Fasteners through the LWC into the steel deck in accordance with TAS 105.
Deck:	Minimum 22 gauge, Grade 50, Type B steel deck is secured to supports spaced a maximum of 6 ft. o.c. with #12-24 x 1-1/4" HWH SD screws with ½" washers spaced at 6" o.c. Side lap fasteners secured with #1/4-14 x 7/8" HWH SD screws with ½" washers spaced 12" o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
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.

Membrane:	UltraPly TPO mechanically fastened through the lightweight concrete and engaged to the steel deck as described below:
Fastening:	Membrane is mechanically attached using Firestone Polymer Batten Strip spaced 4 ft. o.c. and fastened to deck with Firestone Heavy-Duty fasteners spaced 6" o.c. along the batten strip. A 6" wide UltraPly TPO Cover Strip is heat welded over battens with 1-1/2 in. wide heat welds.
Maximum Design Pressure:	-97.5 psf. (See General Limitation #7)

Membrane Type:	Single Ply, TPO
Deck Type 4:	Lightweight Concrete, Non-insulated
Deck Description:	minimum 440 psi Generic Cellular Lightweight Concrete is cast over steel deck. Minimum 1/8" slurry coat is followed with 1" EPS board and a 2" top coat is applied. *Lightweight Concrete should record a Minimum Characteristic Resistance Force (MCRF) of 450 lbf when tested with Firestone Heavy-Duty Fasteners through the LWC into the steel deck in accordance with TAS 105.
Deck:	Minimum 22 gauge, Grade 80, Type B steel deck is secured to supports spaced a maximum of 6 ft. o.c. with #12-24 x 1-1/4" HWH SD screws with ½" washers spaced at 6" o.c. Side lap fasteners secured with #1/4-14 x 7/8" HWH SD screws with ½" washers spaced 12" o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
System Type E(2):	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.

Membrane:	UltraPly TPO XR 100 or UltraPly TPO XR 115 mechanically fastened through the lightweight concrete and engaged to the steel deck as described below:
Fastening:	Membrane is mechanically attached using Firestone Polymer Batten Strip spaced 4 ft. o.c. and fastened to deck with Firestone Heavy-Duty fasteners spaced 6" o.c. along the batten strip. A 6" wide UltraPly TPO Cover Strip is heat welded over battens with 1-1/2 in. wide heat welds.
Maximum Design Pressure:	-112.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Minimum 39 pcf wet cast density; 1/8" thick slurry of Celcore MF Cellular concrete with Celcore HS Rheology Modifying Admixture (minimum 340 psi) is poured over the steel deck. Min. 1" thick Dyplast Holey Board, Carpenter Holey Board or Cellofoam Holey Board is placed into the wet concrete, followed by a minimum 2" thick top coat of Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture (minimum 340 psi). After allowing to cure, Celcore PVA Curing Compound is spray applied at a minimum rate 300 ft^2/gal

Deck: Minimum 22 gauge, Grade 33, Wheeling Corrugating Company BW galvanized deck or BW slotted galvanized deck is secured to supports space at maximum 6 ft. o.c. with 3/8" welding washers spaced at 6" o.c. Side lap fasteners secured with two ITW Buildex Traxx/1fasteners evenly spaced between the purlins 24" o.c.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type F(1): Membrane fully adhered to LWC deck.

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

Membrane: UltraPly TPO XR 100 or UltraPly TPO XR 115 fully adhered with XR Bonding Adhesive at a rate of 70-90 ft^2/gallon. Side laps are secured with a minimum 1.5" heat weld.

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

Membrane Type: Single Ply, TPO

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Minimum 40 pcf wet cast density; 1/8" thick slurry of Celcore MF Cellular concrete with Celcore HS Rheology Modifying Admixture (minimum 340 psi) is poured over the steel deck. Min 1" thick Dyplast Holey Board, Carpenter Holey Board or Cellofoam Holey Board is placed into the wet concrete, followed by a minimum 2" thick top coat of Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture (minimum 340 psi). After allowing to cure, Celcore PVA Curing Compound is spray applied at a minimum rate 300 ft^2/gal

Deck: Minimum 22 gauge, Grade 33, Wheeling Corrugating Company BW galvanized deck or BW slotted galvanized deck is secured to supports space at maximum 6 ft. o.c. with ITW Buildex Traxx/5 spaced at 6" o.c. Side lap fasteners secured with two ITW Buildex Traxx/1fasteners evenly spaced between the purlins 24" o.c.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type F(2): Membrane fully adhered to LWC deck.

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

Membrane: UltraPly TPO XR 100 UltraPly TPO XR 115 fully adhered with XR Bonding Adhesive at a rate of 70-90 ft^2/gallon. Side laps are secured with a minimum 1.5" heat weld.

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

Membrane Type: Single Ply, TPO

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Elastizell Lightweight Insulation Concrete, minimum 300 psi. A 1/8" thick slurry coat of Elastizell LWC is poured over the steel deck followed by 1" EPS Holey Board and a 2" LWC top coat.

Deck: Min. 22 ga., Grade 33, Type B 1.5" deep corrugated, marlin type B, vented, G-90 finish steel deck attached at 6 ft. spans using #12-24 x 1 ¼" hex head Tek screws spaced 6" o.c. Side laps attached with #14-1" Tek screws spaced 12" o.c.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type F(3): Membrane fully adhered to LWC deck.

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

Membrane: UltraPly TPO XR 100 or UltraPly TPO XR 115 fully adhered with XR Bonding Adhesive, substrate only, at are rate of 70-90 ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

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

Membrane Type:	Single Ply, TPO
Deck Type 4:	Lightweight Concrete, Non-insulated
Deck Description:	Minimum 40 pcf wet cast density; 1/8" thick slurry of Celcore MF Cellular concrete with Celcore HS Rheology Modifying Admixture (minimum 340 psi) is poured over the steel deck. A min. 1" thick Dyplast Holey Board, Carpenter Holey Board or Cellofoam Holey Board is placed into the wet concrete, followed by a minimum 2" thick top coat of Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture (minimum 340 psi). After allowing to cure, Celcore PVA Curing Compound is spray applied at a minimum rate 300 ft^2/gal
Deck:	Minimum 22 gauge, Grade 33, Wheeling Corrugating Company BW galvanized deck or BW slotted galvanized deck is secured to supports space at maximum 5 ft. o.c. with ITW Buildex Traxx/5 spaced at 6" o.c. Side laps fastened with ITW Buildex Traxx/1 spaced 24" o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
System Type F(4):	Membrane fully adhered to LWC deck.

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

Membrane:	UltraPly TPO XR 100 or UltraPly TPO XR 115 fully adhered with XR Bonding Adhesive at a rate of 70-90 ft^2/gallon. Side laps are secured with a minimum 1.5" heat weld.
Maximum Design Pressure:	-82.5 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Minimum 40 pcf wet cast density; 1/8" thick slurry of Celcore MF Cellular concrete with Celcore HS Rheology Modifying Admixture (minimum 340 psi) is poured over the steel deck. Min 1" thick Dyplast Holey Board, Carpenter Holey Board or Cellofoam Holey Board is placed into the wet concrete, followed by a minimum 2" thick top coat of Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture (minimum 340 psi). After allowing to cure, Celcore PVA Curing Compound is spray applied at a minimum rate 300 ft^2/gal

Deck: Minimum 22 gauge, Grade 33, Wheeling Corrugating Company BW galvanized deck or BW slotted galvanized deck is secured to supports space at maximum 4 ft. o.c. with ITW Buildex Traxx/5 spaced at 6" o.c. Side laps fastened with ITW Buildex Traxx/1 spaced 24" o.c.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type F(5): Membrane fully adhered to LWC deck.

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

Membrane: UltraPly TPO XR 100 or UltraPly TPO XR 115 fully adhered with XR Bonding Adhesive at a rate of 70-90 ft^2/gallon. Side laps are secured with a minimum 1.5" heat weld.

Maximum Design Pressure: -90 psf. (See General Limitation #9)

Membrane Type:	Single Ply, TPO
Deck Type 4:	Lightweight Concrete, Non-insulated
Deck Description:	Minimum 39 pcf wet cast density; 1/8" thick slurry of Celcore MF Cellular Concrete. Min 1" thick Dyplast Holey Board, Carpenter Holey Board or Cellofoam Holey Board is placed into the wet concrete, followed by a minimum 2" thick top coat of min. 340 psi Celcore MF Cellular Concrete. After allowing to cure, Celcore PVA Curing Compound is spray applied at a minimum rate 300 ft^2/gal
Deck:	Structural Concrete
System Type F(6):	Membrane fully adhered to LWC deck.

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

Membrane:	UltraPly TPO XR 100 or UltraPly TPO XR 115 fully adhered with XR Bonding Adhesive at a rate of 70-90 ft^2/gallon. Side laps are secured with a minimum 1.5" heat weld.
Maximum Design Pressure:	-90 psf. (See General Limitation #9)

Membrane Type:	Single Ply, TPO
Deck Type 4:	Lightweight Concrete, Non-insulated
Deck Description:	Minimum 45 pcf wet cast density; 1/8" thick slurry of Celcore MF Cellular concrete with Celcore HS Rheology Modifying Admixture (minimum 340 psi) is poured over the steel deck. Min 1" thick Dyplast Holey Board, Carpenter Holey Board or Cellofoam Holey Board is placed into the wet concrete, followed by a minimum 2" thick top coat of Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture (minimum 340 psi) After allowing to cure, Celcore PVA Curing Compound is spray applied at a minimum rate 300 ft^2/gal. After curring LWIC systesm is mechanically attached to deck with Insulation Fastening Plates and Heavy Duty Fasteners applied at 1:2 ft^2.
Deck:	Minimum 22 gauge, Grade 33, Wheeling Corrugating Company BW galvanized deck or BW slotted galvanized deck is secured to supports space at maximum 6 ft. o.c. with 3/8" welding washers spaced at 6" o.c. Side lap fasteners secured with two ITW Buildex Traxx/1fasteners evenly spaced between the purlins 24" o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
System Type F(7):	Membrane fully adhered to LWC deck.

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

Membrane:	UltraPly TPO XR 100 or UltraPly TPO XR 115 fully adhered with XR Bonding Adhesive at a rate of 70-90 ft^2/gallon. Side laps are secured with a minimum 1.5" heat weld.
Maximum Design Pressure:	-90 psf. (See General Limitation #9)

Membrane Type:	Single Ply, TPO
Deck Type 4:	Lightweight Concrete, Non-insulated
Deck Description:	Minimum 39 pcf wet cast density; 2" thick min. 340 psi Celcore MF Cellular concrete is cast onto the structural concrete deck. After allowing to cure, Celcore PVA Curing Compound is sprayed or roller applied at a minimum rate 300 ft^2/gal
Deck:	Structural Concrete
System Type F(8):	Membrane fully adhered to LWC deck.

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

Membrane:	UltraPly TPO XR 100 or UltraPly TPO XR 115 fully adhered with XR Bonding Adhesive at a rate of 70-90 ft^2/gallon. Side laps are secured with a minimum 1.5" heat weld.
Maximum Design Pressure:	-90 psf. (See General Limitation #9)

Membrane Type:	Single Ply, TPO
Deck Type 4:	Lightweight Concrete, Non-insulated
Deck Description:	Minimum 43 pcf wet cast density; 1/8" thick slurry of Elastizell Range II Lightweight Insulating Concrete is cast onto structural concrete deck. Min 1" thick Dyplast Holey Board or Cellofoam Holey Board is placed into the wet concrete, followed by a minimum 2" thick top coat of min. 230 psi Elastizell Range II Lightweight Insulating Concrete.
Deck:	Structural Concrete
System Type F(9):	Membrane fully adhered to LWC deck.

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

Membrane:	UltraPly TPO XR 100 or UltraPly TPO XR 115 fully adhered with XR Bonding Adhesive at a rate of 70-90 ft^2/gallon. Side laps are secured with a minimum 1.5" heat weld.
Maximum Design Pressure:	-90 psf. (See General Limitation #9)

Membrane Type:	Single Ply, TPO
Deck Type 4:	Lightweight Concrete, Non-insulated
Deck Description:	Elastizell Range II Lightweight Insulation Concrete, with a minimum wet cast density of 43 lb/ft^3 , is cast onto a structural concrete deck to a minimum depth of 1/8". One (1) inch Holey Board is immediately placed into the wet concrete. A minimum 2" thick min. 230 psi Elastizell Range II Lightweight Insulation Concrete top coat is applied.
Deck:	Structural Concrete
System Type F(10):	Membrane fully adhered to LWC deck.

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

Membrane:	UltraPly TPO XR 100 or UltraPly TPO XR 115 adhered with XR Bonding Adhesive at a rate of 70-90 ft^2/gallon. Side laps are secured with a minimum 1.5" heat weld.
Maximum Design Pressure:	-210 psf. (See General Limitation #9)

Membrane Type:	Single Ply, TPO
Deck Type 4:	Lightweight Concrete, Non-insulated
Deck Description:	Generic Cellular Lightweight Concrete, Minimum 270 psi. A slurry coat of cellular Lightweight Concrete is cast over structural concrete deck followed by 1" Holey board and a minimum 2" Lightweight Concrete top coat. *Lightweight Concrete should record a Minimum Characteristic Resistance Force (MCRF) of 95 lbf when tested with the FM-90 fasteners in accordance with TAS 105.
Deck:	Minimum 2500 psi structural concrete
System Type F(11):	Membrane fully adhered to LWC deck.

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

Membrane:	UltraPly TPO XR 100 or UltraPly TPO XR 115 fully adhered with XR Bonding Adhesive, substrate only, at a rate of 70-90 ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Maximum Design Pressure:	-467.5 psf. (See General Limitation #9)

Membrane Type:	Single Ply, TPO
Deck Type 4:	Lightweight Concrete, Non-insulated
Deck Description:	Minimum 420 psi Elastizell Lightweight Insulation Concrete cast over structural concrete. A 1/8" thick slurry of Elastizell Lightweight Insulation Concrete is followed by 1" EPS Holey Board and a 2" Lightweight Concrete top coat is applied.
Deck:	Minimum 2500 psi structural concrete
System Type F(12):	Membrane adhered to LWC deck.

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

Membrane:	UltraPly TPO XR 100 or UltraPly TPO XR 115 membrane adhered with XR Stick Membrane Adhesive applied in continuous ¾ - 1 in. wide ribbons spaced 12" o.c. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Maximum Design Pressure:	-132.5 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Minimum 280 psi Celcore MF cast over structural concrete. A 1/8" thick slurry of Celcore MF Cellular is followed by 1" EPS Holey Board and a 2" Lightweight Concrete top coat. PVA Curing Compound is applied after the setting of top coat at a rate of 300 ft^2 /gal.

Deck: Minimum 2500 psi structural concrete

System Type F(13): Membrane adhered to LWC deck.

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

Membrane: UltraPly TPO XR 100 or UltraPly TPO XR 115 membrane adhered with XR Stick Membrane Adhesive applied in continuous ¾ - 1 in. wide ribbons spaced 12" o.c. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Maximum Design Pressure: -140 psf. (See General Limitation #9)

Membrane Type:	Single Ply, TPO
Deck Type 4:	Lightweight Concrete, Non-insulated
Deck Description:	Minimum 200 psi Generic Cellular Lightweight Concrete cast over structural concrete. A 1/8" thick slurry coat of cellular lightweight concrete is followed by 1" EPS holey board and a 2" top coat applied. *Lightweight Concrete should record a Minimum Characteristic Resistance Force (MCRF) of 36.7 lbf when tested with 1.7" LWC Base-Ply fasteners in accordance with TAS 105.
Deck:	Minimum 2500 psi structural concrete
System Type F(14):	Membrane adhered to LWC deck.

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

Membrane:	UltraPly TPO XR 100 or UltraPly TPO XR 115 membrane adhered with XR Stick Membrane Adhesive applied in continuous ¾ - 1 in. wide ribbons spaced 12" o.c. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Maximum Design Pressure:	-125 psf. (See General Limitation #9)

Membrane Type:	Single Ply, TPO
Deck Type 4:	Lightweight Concrete, Non-insulated
Deck Description:	Minimum 280 psi Celcore MF cast over structural concrete. A 1/8" thick slurry of Celcore MF Cellular concrete is followed by 1" EPS Holey Board and a 2" Lightweight Concrete top coat. PVA Curing Compound is applied after the setting of top coat at a rate of 300 ft^2 /gal.
Deck:	Minimum 2500 psi structural concrete
System Type F(15):	Membrane fully adhered to LWC deck.

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

Membrane:	UltraPly TPO membrane fully adhered to the substrate with UltraPly Bonding Adhesive at a rate of 45-60 ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Maximum Design Pressure:	-130 psf. (See General Limitation #9)

Membrane Type:	Single Ply, TPO
Deck Type 4:	Lightweight Concrete, Non-insulated
Deck Description:	Minimum 200 psi Generic Cellular Lightweight Concrete cast over structural concrete. A1/8" thick slurry coat of cellular lightweight concrete and is followed by 1" EPS holey board and a 2" top coat applied. *Lightweight Concrete should record a Minimum Characteristic Resistance Force (MCRF) of 36.7 lbf when tested with 1.7" LWC Base-Ply fasteners in accordance with TAS 105.
Deck:	Minimum 2500 psi structural concrete
System Type F(16):	Membrane fully adhered to LWC deck.

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

Membrane:	UltraPly TPO membrane fully adhered with UltraPly Bonding Adhesive at a rate of 45-60 ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Maximum Design Pressure:	-105 psf. (See General Limitation #9)

Membrane Type:	Single Ply, TPO
Deck Type 4:	Lightweight Concrete, Non-insulated
Deck Description:	Minimum 420 psi Elastizell cast over 22 ga. Steel Deck. A 1/8" thick slurry coat of Elastizell Lightweight Insulation Concrete is followed by 1" EPS board and a minimum 2" Lightweight Concrete top coat is applied.
Deck:	Min. 22 ga., type B, G-90 finished, Grade 80, 1.5" vented steel deck attached to supports at 6 ft. spans using #12-24 x 1.25" hex head Tek screws spaced 6" o.c. (each flute) Side laps attached with #14 x 1" hex head Tek screws spaced 12" o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
System Type F(17):	Membrane adhered to LWC deck.

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

Membrane:	UltraPly TPO XR 100 or UltraPly TPO XR 115 membrane adhered with XR Stick Membrane Adhesive applied in continuous ¾ - 1 in. wide ribbons spaced 12" o.c. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Maximum Design Pressure:	-132.5 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Minimum 420 psi Elastizell cast over 22 ga. Steel Deck. A1/8" thick slurry coat of Elastizell Lightweight Insulation Concrete is followed by 1" EPS board and a minimum 2" Lightweight Concrete top coat is applied.

Deck: Min. 22 ga., type B, G-90 finished, Grade 33, 1.5" vented steel deck attached to supports at 5 ft. spans using #14 hex head Tek screws spaced 6" o.c. (each flute) Side laps attached with #14 x 1" hex head Tek screws spaced 6" o.c.

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

System Type F(18): Membrane adhered to LWC deck.

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

Membrane: UltraPly TPO XR 100 or UltraPly TPO XR 115 membrane adhered with XR Stick Membrane Adhesive applied in continuous ¾ - 1 in. wide ribbons spaced 12" o.c. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Maximum Design Pressure: -67.5 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Minimum 210 psi Generic Cellular Lightweight Concrete is cast over structural concrete or steel deck. Minimum 1/8" slurry coat is followed with 1" EPS board and a 2" top coat is applied. *Lightweight Concrete should record a Minimum Characteristic Resistance Force (MCRF) of 100 lbf when tested with ES FM-90 fasteners in accordance with TAS 105. Supplemental attachment includes Firestone HD fasteners with Insulation Fastening Plates through Lightweight Concrete to steel deck at 1 per 2 ft^2.

Deck: Min. 22 ga., type B, G-90 finished, Grade 33, 1.5" vented steel deck attached to supports at 6 ft. spans using Tek/5 screws spaced 6" o.c. (each flute) Side laps attached with Tek/1 screws spaced 12" o.c.

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

System Type F(19): Membrane adhered to LWC deck.

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

Membrane: UltraPly TPO XR 100 or UltraPly TPO XR 115 membrane adhered with XR Stick Membrane Adhesive applied in continuous ¾- 1 in. wide ribbons spaced 12" o.c. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

Maximum Design Pressure: -75 psf. (See General Limitation #9)

Membrane Type:	Single Ply, TPO
Deck Type 4I:	Lightweight Concrete, Insulated
Deck Description:	Minimum 300 psi Generic Cellular Lightweight Concrete is cast over structural concrete or steel deck. Minimum 1/8" slurry coat is followed with 1" EPS board and a 2" top coat is applied. *Lightweight Concrete should record a Minimum Characteristic Resistance Force (MCRF) of 100 lbf when tested with ES FM-90 fasteners in accordance with TAS 105. Supplemental attachment includes Firestone HD fasteners with Insulation Fastening Plates through Lightweight Concrete to steel deck at 1 per 2 ft^2
Deck:	Min. 22 ga., type B, G-90 finished, Grade 33, 1.5" vented steel deck attached to supports at 6 ft. spans using Tek/5 screws spaced 6" o.c. (each flute) Side laps attached with Tek/1 screws spaced 12" o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
System Type F(20):	Membrane fully adhered to LWC deck.

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

Membrane:	UltraPly TPO membrane fully adhered with UltraPly Bonding Adhesive at a rate of 45-60 ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Maximum Design Pressure:	-75 psf. (See General Limitation #9)

Membrane Type:	Single Ply, TPO
Deck Type 4I:	Lightweight Concrete, Insulated
Deck Description:	Minimum 180 psi Celcore MF cast over steel deck. A 1/8" thick slurry of Celcore MF Cellular concrete is poured onto steel deck and is followed by 1" EPS Board. A minimum 2" Lightweight Concrete top coat is applied. PVA Curing Compound is applied after setting of top coat at a rate of 0.33 gal/sq after Supplemental attachment includes Firestone HD fasteners with Insulation Fastening Plates through Lightweight Concrete to steel deck at 1 per 2 ft^2
Deck:	Min. 22 ga., type B, G-90 finished, Grade 40, 1.5" vented steel deck attached to supports at 6 ft. spans using Tek/5 screws spaced 6" o.c. (each flute) Side laps attached with Tek/1 screws spaced 12" o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
System Type F(21):	Membrane adhered to LWC deck.

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

Membrane:	UltraPly TPO XR 100 or UltraPly TPO XR 115 membrane adhered with XR Stick Membrane Adhesive applied in continuous ¾ - 1 in. wide ribbons spaced 12" o.c. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Maximum Design Pressure:	-90 psf. (See General Limitation #9)

Membrane Type:	Single Ply, TPO
Deck Type 4I:	Lightweight Concrete, Insulated
Deck Description:	Minimum 180 psi Celcore MF cast over steel deck. A 1/8" thick slurry coat of Celcore MF Cellular Concrete is applied to steel deck and is followed by 1" EPS Board. A minimum 2" Lightweight Concrete top coat is applied. Celcore PVA Curing Compound is applied after setting of top coat at a rate of 0.33 gal/sq. Supplemental attachment includes Firestone HD fasteners with Insulation Fastening Plates through Lightweight Concrete to steel deck at 1 per 2 ft^2
Deck:	Min. 22 ga., type B, G-90 finished, Grade 40, 1.5" vented steel deck attached to supports at 6 ft. spans using Tek/5 screws spaced 6" o.c. (each flute) Side laps attached with Tek/1 screws spaced 12" o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
System Type F(22):	Membrane fully adhered to LWC deck.

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

Membrane:	UltraPly TPO membrane fully adhered with UltraPly Bonding Adhesive at a rate of 45-60 ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Maximum Design Pressure:	-90 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO

Deck Type 4I: Lightweight Concrete, Insulated

Deck Description: Minimum 180 psi Celcore MF cast over steel deck. A 1/8" thick slurry coat of Celcore MF Cellular Concrete is poured onto the steel deck and is followed by 1" EPS Board. A minimum 2" Lightweight Concrete top coat is applied. Celcore PVA Curing Compound is applied after setting of top coat at a rate of 0.33 gal/sq.

Deck: Min. 22 ga., type B, G-90 finished, Grade 33, 1.5" vented steel deck attached to supports at 6 ft. spans using Tek/5 screws spaced 6" o.c. (each flute) Side laps attached with Tek/1 screws spaced 12" o.c.

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

System Type F(23): Membrane fully adhered to LWC deck.

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

Membrane: UltraPly TPO membrane fully adhered with UltraPly Bonding Adhesive at a rate of 45-60 ft^2/gallon. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

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

Membrane Type:	Single Ply, TPO
Deck Type 4I:	Lightweight Concrete, Insulated
Deck Description:	Minimum 180 psi Celcore MF cast over steel deck. A 1/8" thick slurry coat of Celcore MF Cellular Concrete is poured onto the steel deck and is followed by 1" EPS Board. A minimum 2" Lightweight Concrete top coat is applied. Celcore PVA Curing Compound is applied after setting of top coat at a rate of 0.33 gal/sq.
Deck:	Min. 22 ga., type B, G-90 finished, Grade 33, 1.5" vented steel deck attached to supports at 6 ft. spans using Tek/5 screws spaced 6" o.c. (each flute) Side laps attached with Tek/1 screws spaced 12" o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**
System Type F(24):	Membrane fully adhered to LWC deck.

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

Membrane:	UltraPly TPO XR 100 or UltraPly TPO XR 115 membrane adhered with XR Stick Membrane Adhesive applied in continuous ¾ - 1 in. wide ribbons spaced 12" o.c. The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.
Maximum Design Pressure:	-45 psf. (See General Limitation #9)

LIGHTWEIGHT INSULATING CONCRETE SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117 and/or RAS 137, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.
3. For Systems where specific lightweight insulating concrete si referenced consult current lightweight insulating concrete NOA for specific deck construction and limitations. For systems where specific lightweight insulating concrete is not referenced, the minimum design mix shall be a minimum of 300 psi.

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