



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

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
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www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

Carlisle SynTec Systems, a division of Carlisle Construction Materials LLC.
1285 Ritner Highway
Carlisle, PA 17013

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: Carlisle Sure-Weld Single Ply TPO Roof Systems over Steel Decks

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

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

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

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

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

This NOA revises NOA# 24-0502.06 and consists of pages 1 through 112.
The submitted documentation was reviewed by Alex Tigera.

05/07/26



NOA No.: 24-1210.06
Expiration Date: 08/31/29
Approval Date: 05/07/26
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ROOFING SYSTEM APPROVAL

<u>Category:</u>	Roofing
<u>Sub-Category:</u>	Single Ply
<u>Material:</u>	TPO
<u>Deck Type:</u>	Steel
<u>Maximum Design Pressure</u>	-135 psf
<u>Fire Classification:</u>	See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product Name</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
Sure-Weld FleeceBACK	various	TAS 131	Reinforced white or colored TPO membrane with fleece backing. Total sheet thicknesses available are 100, 115 and 135 mils.
Sure-Weld AFX	various	TAS 131	Reinforced white or colored TPO membrane with fleece backing. 120, 135 and 155-mils.
Sure-Weld	various	TAS 131	Reinforced white or colored TPO membrane. Available sheet thicknesses are 45 and 60-mils.
Sure-Weld EXTRA	various	TAS 131	Reinforced white or colored TPO membrane. Available sheet thickness is 80-mils.
Sure-Weld HS	various	TAS 131	Reinforced white or colored FR TPO membrane. Available sheet thicknesses are 45, 60 and 80-mils
Sure-Weld Pressure Sensitive RUSS	various	TAS 131	Reinforced Securement Strip.
Flexible FAST Adhesive Flexible FAST Dual Cartridge Flexible FAST 5-Gallon Jug	15& 50-gal. drum Dual Cartridge 5-Gallon Jug	TAS 110	Two-part, low rise polyurethane adhesive
Flexible FAST Dual Tank Adhesive	50-lb Canister	TAS 110	Two-part, low rise polyurethane adhesive
Carlisle Olybond 500BA	Various	TAS 110	Polyurethane Adhesive
Carlisle One-Step Adhesive	Various	TAS 110	Polyurethane Adhesive
Sure-Weld Bonding Adhesive	5-gal. pail	TAS 110	Solvent-based bonding adhesive.



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

<u>Product Name</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
Aqua Base 120 Bonding Adhesive	5-gal. pail	TAS 110	Water-based bonding adhesive
Carlisle SureMB MC adhesive	5-gal. pail	TAS 110	Asphalt-Modified Polyether Adhesive
HydroBond Water-Based Bonding Adhesive	5-gal. pail	TAS 110	Water-based bonding adhesive

APPROVED INSULATIONS:**TABLE 2**

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
InsulBase	Rigid-roof insulation panel comprised of closed cell Polyisocyanurate foam core with fiber reinforced facers	Carlisle Syntec, a div of Carlisle construction Materials, LLC.
SecurShield	Rigid-roof insulation panel comprised of closed cell Polyisocyanurate foam core with coated glass facers	Carlisle SynTec
SecurShield HD Composite	Rigid-roof composite insulation panel comprised of closed cell Polyisocyanurate foam core and high-density cover board	Carlisle SynTec
SecurShield HD	High-density cover board comprised of closed cell Polyisocyanurate foam core with coated glass facers	Carlisle SynTec
StormBase	Rigid-roof composite insulation panel comprised of closed cell Polyisocyanurate foam core and plywood	Carlisle SynTec
H-Shield	Rigid-roof insulation panel comprised of closed cell Polyisocyanurate foam core with fiber reinforced facers	Hunter Panels
H-Shield CG	Rigid-roof insulation panel comprised of closed cell Polyisocyanurate foam core with coated glass facers	Hunter Panels
H-Shield HD Composite CG	Rigid-roof composite insulation panel comprised of closed cell Polyisocyanurate foam core and high-density cover board	Hunter Panels



APPROVED INSULATIONS:**TABLE 2**

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
H-Shield HD	High-density cover board comprised of closed cell Polyisocyanurate foam core with coated glass facers	Hunter Panels
H-Shield NB	Rigid-roof composite insulation panel comprised of closed cell Polyisocyanurate foam core and plywood	Hunter Panels
Insulfoam EPS	Rigid-roof insulation panel comprised of expanded polystyrene	Insulfoam
Insul-Lam	Rigid-roof composite insulation panel comprised of expanded polystyrene and plywood	Insulfoam
SECUROCK Gypsum-Fiber & Glass Mat Roof Boards	A rigid, gypsum based board stock	United States Gypsum Corporation
Dens Deck, Dens Deck Prime	Silicon treated gypsum	Georgia-Pacific, Gypsum, LLC.

APPROVED FASTENERS:**TABLE 3**

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
1.	HP Fastener	Insulation and Membrane Fastener	Various	Carlisle SynTec
2.	HPX Fastener	Insulation and Membrane Fastener	Various	Carlisle SynTec
3.	HP-XTRA Fastener	Insulation and Membrane Fastener	Various	Carlisle SynTec
4.	InsulFast Fastener	Insulation Fastener	Various	Carlisle SynTec
5.	Insulation Fastening Plate	Insulation Plate	3-inch Round	Carlisle SynTec
6.	Piranha Plates	Seam Plate	2-3/8-inch Round	Carlisle SynTec
7.	Piranha Xtra Plates	Seam Plate	2-3/8-inch Round	Carlisle SynTec
8.	RhinoBond Plates- TPO	Insulation Plate	3-inch Round	Carlisle SynTec



APPROVED FASTENERS:**TABLE 3**

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
9.	#12 Standard Roofgrip	Insulation and Membrane Fastener	Various	OMG, Inc.
10.	#14 Roofgrip	Insulation and Membrane Fastener	Various	OMG, Inc.
11.	#15 RoofGrip	Insulation and Membrane Fastener	Various	OMG, Inc.
12.	OMG Heavy Duty	Insulation and Membrane Fastener	Various	OMG, Inc.
13.	OMG 3-inch Galvalume Steel Plate	Insulation Plate	3-inch Round	OMG, Inc.
14.	#12 Standard Stainless Steel	Stainless steel insulation and membrane fastener	Various	OMG, Inc.
15.	Trufast #14 HD Fasteners	Insulation and membrane fastener	Various	Altenloh, Brinck & Co. U.S., Inc.
16.	Trufast #15 EHD Fasteners	Insulation and membrane fastener	Various	Altenloh, Brinck & Co. U.S., Inc.
17.	Trufast #12 DP Fasteners	Insulation and membrane fastener	Various	Altenloh, Brinck & Co. U.S., Inc.
18.	Trufast 3-inch Metal Insulation Plate	Insulation Plate	3-inch Round	Altenloh, Brinck & Co. U.S., Inc.
19.	Trufast 2.4-inch Barbed Metal Seam Plate (14 Barb)	Seam Plate	2.4-inch Round	Altenloh, Brinck & Co. U.S., Inc.
20.	Trufast 2-inch Metal Seam Plate	Seam Plate	2-inch Round	Altenloh, Brinck & Co. U.S., Inc.
21.	Trufast 2-inch Barbed Metal Seam Plate	Seam Plate	2-inch Round	Altenloh, Brinck & Co. U.S., Inc.



EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Architectural Testing Inc.	ATI-37050.01	Wind Uplift Classification	3/13/00
	ATI-37490.01	ASTM D 2137	7/7/00
Factory Mutual Research Corp.	3003393	Class 4470	3/30/99
	3003393	Wind Uplift Classification	3/26/99
	(Letter Report)		
	3001522	Wind Uplift Classification	3/26/99
	3001522	Wind Uplift Classification	11/3/98
	(Letter Report)		
	3Z9A1.AM	Wind Uplift Classification	10/15/97
	Approval Guide Excerpt	Wind Uplift Classification Listings	5/00
	3B8Q4.AM		06/04/97
	3006664		08/08/00
	1B7A5.AM		02/23/98
	3026316		04/24/07
	3011494		
	3007710		03/12/01
	3011329		06/10/02
	3013584	Class 4470	06/27/03
	3011220	Class 4470	08/16/01
	3006110	Class 4470	06/13/01
	3012879	Class 4470	04/04/03
	3017662	Class 4470	06/07/05
	3013584	Class 4470	06/27/03
	3020845	Class 4470	01/25/06
	3019897	Class 4470	10/07/05
	3022187	Class 4470	09/15/05
	3022181	Class 4470	09/01/05
	3023032	Class 4470	07/20/05
Celotex Corporation Testing Services	520257	Membrane Physical Property Testing	4/19/00
SGS U.S Testing Company Incorporated	131248-R2	Ozone Resistance	1/6/00
Trinity ERD	C46470.07.14-1A	TAS 131	07/16/14
	C46470.07.14-1B	TAS 131	07/16/14
	C46470.07.14-2A	TAS 131	07/30/14
	C46470.07.14-4-R1	TAS 131	07/21/14
	4r-CRL-20-SSTHP-.02.D	TAS 131	04/27/21
	4r-CRL-20-SSTHP-.02.C	TAS 131	04/27/21
	4-CRL-18-002.04.18-2A	TAS 131	04/30/18
	4r-CRL-20-SSTHP-	TAS 131	04/27/21
	02.B.R2		
	4r-CRL-20-SSTHP-.02.A	TAS 131	04/27/21
	4r-CRL-20-SSTHP-.03.A	TAS 131	04/27/21

DECK STRESS ANALYSIS CALCULATIONS/REPORTS

<u>Engineer/Agency</u>	<u>Identifier</u>	<u>Assemblies:</u>	<u>Date</u>
FM Approval Deck Limitation	RoofNav Listing	C(2), C(3), C(4), C(11) - C(21), C(27) – C(29), C(33), C(34), C(39), C(42), C(44), D(1) – D(37)	01/01/13



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APPROVED ASSEMBLIES

Membrane Type:	Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK
Deck Type 2I:	Steel, Insulated
Deck Description:	18-22 ga. Steel
System Type C(1):	Minimum 22 ga., Type B, Grade 33 steel deck fastened with ITW Buildex Traxx/5 fasteners spaced 6 inches on center along each structural support, spaced maximum 6-feet on center. Deck side laps secured 30 inches on center with ITW Buildex Traxx/1 fasteners.

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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecuShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.4" thick	1, 2, 4, 5	1:3.2 ft²
Minimum 2" thick	1, 2, 6, 7, 8, 9	1:4 ft²
Minimum 2" thick	1,2 with 5	1:2 ft²
Dens Deck, Dens Deck Prime Minimum 1/4" thick	1, 2, 6, 7, 8, 9	1:2 ft²

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Single and multiple layers of insulation can be attached to base layer with Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or Flexible FAST Dual Tank Carlisle OlyBond 500BA, or Carlisle One Step Foamable Adhesive.

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.

Membrane #1: Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Sure-Weld Bonding Adhesive or Low VOC Bonding Adhesive. The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 60 ft²/gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.
Maximum Design Pressure –45 psf (See General Limitation #9)



Membrane #2: Sure-Weld FleeceBACK membrane adhered to the insulation using Aqua Base 120 Bonding Adhesive. The adhesive is applied to the substrate only at a rate of 120 ft²/gallon. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.
Maximum Design Pressure –45 psf. (See General Limitation #9)

(Requires polyisocyanurate insulation fastened at 2 ft²) Sure-Weld FleeceBACK 100 or 115 mil membrane fully adhered to the insulation using Carlisle Flexible FAST Adhesive applied to the substrate at a rate of 1 gal/sq., full coverage. Outside 1.5-inch of side laps are heat welded. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.
Maximum Design Pressure –60 psf. (See General Limitation #9)

Maximum Design Pressure: See Membrane Options Above



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 gage, Type B, ASTM A 653 SS Grade 33 Steel deck fastened to steel support at a maximum span of 6 feet o.c. Steel deck shall be fastened with minimum ITW Buildex Traxx/4 at a maximum spacing of 6 inches o.c. Side laps shall be fastened with ITW Buildex Traxx/1 at a maximum spacing of 24 inches o.c.

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

System Type C(2): All layers of insulation simultaneously attached; membrane fully adhered.

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

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
One of the following covered with the boards listed in Top Layer Top Layer.		
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield HD Composite Minimum 1.5" thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Single and multiple layers of insulation can be attached to base layer with Carlisle Flexible FAST Adhesive, Carlisle OlyBond 500BA, or Carlisle One-Step Adhesive.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Required over the insulations listed in Base Insulation Layer:		
Plywood Minimum 19/32" thick	1, 2	1:1.9 ft ²

Note: 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.

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.



Membrane #1:	Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Sure-Weld Bonding Adhesive or Low VOC Bonding Adhesive. The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 60 ft²/gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld. Maximum Design Pressure –75 psf (See General Limitation #7) Or Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Aqua Base 120 Bonding Adhesive. The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 120 ft²/gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld. Maximum Design Pressure –52.5 psf (See General Limitation #7)
Membrane #2:	Sure-Weld FleeceBACK 100 or 115 mil membrane fully adhered to the insulation Flexible FAST, Flexible FAST Dual Cartridge or Flexible FAST 5-Gallon Jug Adhesive applied to the substrate at a rate of 1 gal/sq., full coverage. Outside 1.5-inch of side laps are heat welded. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld. Maximum Design Pressure –75 psf. (See General Limitation #7) Or Sure-Weld FleeceBACK 100 or 115 mil membrane adhered to the insulation using Aqua Base 120 Bonding Adhesive. The adhesive is applied to the substrate only at a rate of 1 gal/120 ft.² 120 ft²/gallon. Outside 1.5-inch of side laps are heat welded. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld. Maximum Design Pressure –67.5 psf. (See General Limitation #7)
Maximum Design Pressure:	See Membrane Options Above

Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 gage (min 0.0294in.) ASTM A 653 SS Grade 33 Steel deck fastened to steel support at a maximum span of 6 feet o.c. Steel deck shall be fastened with minimum ITW Buildex Traxx/4 at a maximum spacing of 6 inches o.c. Side laps shall be fastened with ITW Buildex Traxx/1 at a maximum spacing of 24 inches o.c.

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

System Type C(3): All layers of insulation simultaneously attached; membrane fully adhered.

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

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 2” thick	1, 2, 6, 7, 8, 9	1:1.6 ft ²

Note: 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. Single and multiple layers of insulation can be attached to base layer with Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or Flexible FAST Dual Tank Adhesives.

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.

Membrane #1: Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Sure-Weld Bonding Adhesive or Low VOC Bonding Adhesive. The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 60 ft²/gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld..
Maximum Design Pressure –75 psf (See General Limitation #7)

Membrane #2: Sure-Weld AFX membrane adhered to the insulation using SureMB MC Adhesive. The adhesive is applied to the substrate only at a rate of 67 ft²/gal. 1 gal/67 ft.² Outside 1.5-inch of side laps are heat welded. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.
Maximum Design Pressure –60 psf. (See General Limitation #7)

Maximum Design Pressure: See Membrane Options Above

Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 gage ASTM A 611 Grade E or A653 Grade 80 Steel deck fastened to steel support at a maximum span of 6 feet o.c. Steel deck shall be fastened with minimum ITW Buildex Traxx/5 at a maximum spacing of 6 inches o.c. Side laps shall be fastened with ITW Buildex Traxx/1 at a maximum spacing of 24 inches o.c.

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

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

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

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
One of the following covered with the boards listed in Top Layer.		
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5" thick	N/A	N/A

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

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Required over the insulations listed in Base Layer.		
Dens Deck Prime (For use over all insulation types.) Minimum 5/8" thick	5	1:1.33 ft ²

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

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.



Membrane: Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Sure-Weld Bonding Adhesive or Low VOC Bonding Adhesive. The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 60 ft²/gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



- Membrane Type:** Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK
- Deck Type 2I:** Steel, Insulated
- Deck Description:** Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.
- System Type C(5):** All layers of insulation simultaneously attached (optional layers adhered); membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield , SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	1, 2 with 5	1:2 ft ²

Optional layers of insulation may be attached to the base layer with Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or Flexible FAST Dual Tank Adhesives applied to the base layer in approximately ¾ to 1-inch wide beads spaced 12-inches on center.

Note: 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:** Sure-Weld FleeceBACK membrane adhered to the insulation with , Flexible FAST, Flexible FAST Dual Cartridge or Flexible FAST 5-Gallon Jug Adhesive applied to the substrate in approximately ¾ to 1-inch wide beads spaced 12-inches on center. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.
- Maximum Design Pressure:** –45 psf (See General Limitation #9)



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

System Type C(6): All layers of insulation simultaneously attached; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield,, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Dens Deck Prime Minimum 1/4-inch thick	1, 2 with 5	1:2 ft ²

Note: All layers of insulation fastened into the steel deck. 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: Sure-Weld FleeceBACK membrane adhered to the insulation with Flexible FAST, Flexible FAST Dual Cartridge or Flexible FAST 5-Gallon Jug Adhesive applied to the substrate in approximately ¾ to 1-inch wide beads spaced 12-inches on center. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

System Type C(7): All layers of insulation simultaneously attached; membrane 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.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	1, 2 with 5	1:3.2 ft ²

Optional layers of insulation may be attached to the base layer with Carlisle Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or Flexible FAST Dual Tank. Adhesives applied to the base layer in approximately ¾ to 1-inch wide beads spaced 12-inches on center.

Note: 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: Sure-Weld FleeceBACK membrane adhered to the insulation using, Flexible FAST, Flexible FAST Dual Cartridge or Flexible FAST 5-Gallon Jug Adhesive applied to the substrate at a rate of 1 gal/sq., full coverage. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

System Type C(8): Base layer(s) of insulation fastened, top layer adhered; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
InsulBase, SecurShield,, SecurShield HD Composite,, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	1, 2 with 5	1:3.2 ft ²

Note: 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.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Top layer of insulation is attached to the base with Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or Flexible FAST Dual Tank.I Adhesives applied to the base layer in approximately ¾ to 1-inch wide beads spaced 12-inches on center.

Membrane: Sure-Weld FleeceBACK membrane adhered to the insulation using Flexible FAST, Flexible FAST Dual Cartridge or Flexible FAST 5-Gallon Jug Adhesive applied to the substrate at a rate of 1 gal/sq., full coverage. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

System Type C(9): All layers of insulation simultaneously attached; membrane 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.

<u>Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
InsulBase, SecurShield,, SecurShield HD Composite, H-Shield,,H-Shield CG , H-Shield HD Composite Minimum 2-inch thick	1, 2 with 5	1:4 ft ²

Optional layers of insulation may be attached to the base layer with Carlisle Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or Flexible FAST Dual Tank. Adhesives applied to the base layer in approximately ¾ to 1-inch wide beads spaced 12-inches on center.

Note: 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: Sure-Weld FleeceBACK membrane adhered to the insulation using Flexible FAST, Flexible FAST Dual Cartridge or Flexible FAST 5-Gallon Jug Adhesive applied to the substrate at a rate of 1 gal/sq., full coverage. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

System Type C(10): Base layer(s) of insulation fastened, top layer adhered; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
InsulBase, SecurShield , SecurShield HD Composite , H-Shield , H-Shield CG, H-Shield HD Composite Minimum 2-inch thick	1, 2 with 5	1:4 ft ²

Note: 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.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Top layer of insulation is attached to the base with Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or Flexible FAST Dual Tank. Adhesives applied to the base layer in approximately ¾ to 1-inch wide beads spaced 12-inches on center.

Membrane: Sure-Weld FleeceBACK membrane adhered to the insulation Flexible FAST, Flexible FAST Dual Cartridge or Flexible FAST 5-Gallon Jug Adhesive applied to the substrate at a rate of 1 gal/sq., full coverage. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type C(11): All layers of insulation simultaneously attached; membrane 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.

<u>Insulation Layer</u>	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
InsulBase, SecurShield , SecurShield HD Composite , H-Shield , H-Shield CG , H-Shield HD Composite Minimum 1.5-inch thick	1, 2 with 5	1:1.6 ft ²

Optional layers of insulation may be attached to the base layer with Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or Flexible FAST Dual Tank. Adhesives applied to the base layer in approximately ¾ to 1-inch wide beads spaced 6-inches on center.

Note: 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: Sure-Weld FleeceBACK membrane adhered to the insulation using Flexible FAST, Flexible FAST Dual Cartridge or Flexible FAST 5-Gallon Jug Adhesive applied to the substrate at a rate of 1 gal/sq., full coverage. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

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

System Type C(12): All layers of insulation simultaneously attached; membrane 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.

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SecurShield, SecurShield HD Composite, H-Shield CG , H-Shield HD Composite Minimum 2-inch thick	1, 2 with 5	1:1 ft ²

Note: All layers shall be simultaneously fastened. 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 Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Sure-Weld Bonding Adhesive or Low VOC Bonding Adhesive . The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 60 ft²/gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

OR

Sure-Weld FleeceBACK membrane adhered to the insulation with , Flexible FAST Dual Cartridge or Flexible FAST 5-Gallon Jug Adhesive applied to the substrate in approximately ¾ to 1-inch wide beads spaced 4-inches on center or applied in a full coverage. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 69-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

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

System Type C(13): All layers of insulation simultaneously attached; membrane 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.

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SecurShield, SecurShield HD Composite, H-Shield CG , H-Shield HD Composite Minimum 2-inch thick	1, 2 with 5	1:1 ft ²

Note: All layers shall be simultaneously fastened. 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 Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Sure-Weld Bonding Adhesive or Low VOC Bonding Adhesive . The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 60 ft²/gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 66-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

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

System Type C(14): All layers of insulation simultaneously attached; membrane 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.

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SecurShield, SecurShield HD Composite, H-Shield, H-Shield HD Composite Minimum 2-inch thick	1, 2 with 5	1:1 ft ²

Note: All layers shall be simultaneously fastened. 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 Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Sure-Weld Bonding Adhesive or Low VOC Bonding Adhesive . The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 60 ft²/gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

Maximum Design Pressure: -97.5 psf (See General Limitation #7)



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 64-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

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

System Type C(15): All layers of insulation simultaneously attached; membrane 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.

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SecurShield, SecurShield HD Composite, H-Shield CG, H-Shield HD Composite. Minimum 2-inch thick	1, 2 with 5	1:1 ft ²

Note: All layers shall be simultaneously fastened. 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 Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Sure-Weld Bonding Adhesive or Low VOC Bonding Adhesive. The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 60 ft²/gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 62-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

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

System Type C(16): All layers of insulation simultaneously attached; membrane 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.

<u>Insulation Layer</u>	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
SecurShield, SecurShield HD Composite , H-Shield CG , H-Shield HD Composite Minimum 2-inch thick	1, 2 with 5	1:1 ft ²

Note: All layers shall be simultaneously fastened. 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 Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Sure-Weld Bonding Adhesive or Low VOC Bonding Adhesive . The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 60 ft²/gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

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

System Type C(17): All layers of insulation simultaneously attached; membrane 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.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
SecurShield, SecurShield HD Composite , H-Shield CG , H-Shield HD Composite Minimum 2-inch thick	1, 2 with 5	1:1 ft ²

Note: All layers shall be simultaneously fastened. 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 Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Sure-Weld Bonding Adhesive or Low VOC Bonding Adhesive . The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 60 ft²/gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 62-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

Or

Minimum 20 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 69-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

Or

Minimum 18 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

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

System Type C(18): All layers of insulation simultaneously attached; membrane 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.

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SecurShield, SecurShield HD Composite , H-Shield CG, H-Shield HD Composite Minimum 2-inch thick	1, 2 with 5	1:1 ft ²

Note: All layers shall be simultaneously fastened. 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: Sure-Weld FleeceBACK membrane adhered to the insulation with Flexible FAST, Flexible FAST Dual Cartridge or Flexible FAST 5-Gallon Jug Adhesive applied to the substrate in approximately ¾ to 1-inch wide beads spaced 4-inches on center or applied in a full coverage. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleecBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

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

System Type C(19): All layers of insulation simultaneously attached; membrane 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.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
SecurShield, SecurShield HD Composite, H-Shield CG, H-Shield HD Composite Minimum 2-inch thick	1, 2 with 5	1:1 ft ²

Note: All layers shall be simultaneously fastened. 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: Sure-Weld FleeceBACK membrane adhered to the insulation with Flexible FAST, Flexible FAST Dual Cartridge or Flexible FAST 5-Gallon Jug Adhesive applied to the substrate in approximately ¾ to 1-inch wide beads spaced 4-inches on center or applied in a full coverage. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type C(20): Base layer(s) of insulation fastened, top layer adhered; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield , SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	1, 2, 4 with 5	1:1.8 ft ²

Note: The base layer of insulation is fastened into the steel deck. 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.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A

Note: Top insulation layer is adhered with Flexible FAST, Flexible FAST Dual Cartridge or Flexible FAST 5-Gallon Jug applied in ¾ to 1-inch wide beads spaced 6-inches on center.

Membrane: Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Sure-Weld Bonding Adhesive. The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 60 ft²/gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

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

System Type C(21): Base layer(s) of insulation fastened, top layer adhered; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
InsulBase, SecurShield,, SecurShield HD Composite, H-Shield, H-Shield CG , H-Shield HD Composite Minimum 1.5-inch thick	1, 2, 4 with 5	1:1.33 ft ²

Note: The base layer of insulation is fastened into the steel deck. 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.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A

Note: Top insulation layer is adhered with Flexible FAST, Flexible FAST Dual Cartridge or Flexible FAST 5-Gallon Jug applied in ¾ to 1-inch wide beads spaced 4-inches on center.

Membrane: Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Sure-Weld Bonding Adhesive or Low VOC Bonding Adhesive. The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 60 ft²/gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

System Type C(22): All layers of insulation simultaneously attached; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG , H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum 1/2-inch thick	1, 2 with 5	1:3.2 ft ²

Note: All layers of insulation fastened into the steel deck. 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: Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Sure-Weld Bonding Adhesive or Low VOC Bonding Adhesive. The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 60 ft²/gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

OR

Sure-Weld FleeceBACK membrane adhered to the insulation with Flexible FAST, Flexible FAST Dual Cartridge or Flexible FAST 5-Gallon Jug Adhesive applied to the substrate in approximately 3/4 to 1-inch wide beads spaced 4-inches on center or applied in a full coverage. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld. (

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



Membrane Type:	Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK
Deck Type 2I:	Steel, Insulated
Deck Description:	Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.
System Type C(23):	All layers of insulation simultaneously attached; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield , SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum 5/8-inch thick	1, 2 with 5	1:4 ft ²

Note: All layers of insulation fastened into the steel deck. 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: Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Sure-Weld Bonding Adhesive or Low VOC Bonding Adhesive. The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 60 ft²/gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

OR

Sure-Weld FleeceBACK membrane adhered to the insulation Flexible FAST, Flexible FAST Dual Cartridge or Flexible FAST 5-Gallon Jug Adhesive applied to the substrate in approximately ¾ to 1-inch wide beads spaced 4-inches on center or applied in a full coverage. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type C(24): All layers of insulation simultaneously attached; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.0-inch thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum ½-inch thick	1, 2 with 5	1:1.66 ft ²

Note: All layers of insulation fastened into the steel deck. 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: Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Sure-Weld Bonding Adhesive or Low VOC Bonding Adhesive. The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 60 ft²/gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

OR

Sure-Weld FleeceBACK membrane adhered to the insulation Flexible FAST, Flexible FAST Dual Cartridge or Flexible FAST 5-Gallon Jug Adhesive applied to the substrate in approximately ¾ to 1-inch wide beads spaced 4-inches on center or applied in a full coverage. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type C(25): All layers of insulation simultaneously attached; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum ½-inch thick	1, 2 with 5	1:1.66 ft ²

Note: All layers of insulation fastened into the steel deck. 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: Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Sure-Weld Bonding Adhesive or Low VOC Bonding Adhesive. The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 60 ft²/gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

OR

Sure-Weld FleeceBACK membrane adhered to the insulation with Flexible FAST, Flexible FAST Dual Cartridge or Flexible FAST 5-Gallon Jug Adhesive applied to the substrate in approximately ¾ to 1-inch wide beads spaced 4-inches on center or applied in a full coverage. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 20 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners spaced 6 inches on center along each structural support. Deck side laps secured 24 inches on center with ITW Buildex Traxx/1 fasteners.
 Or
 Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 67-inches on center with ITW Buildex Traxx/5 fasteners spaced 6 inches on center along each structural support. Deck side laps secured 24 inches on center with ITW Buildex Traxx/1 fasteners.
 Or
 Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners spaced 6 inches on center along each structural support. Deck side laps secured 24 inches on center with ITW Buildex Traxx/1 fasteners.

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

System Type C(26): All layers of insulation simultaneously attached; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum ½-inch thick	1, 2 with 5	1:1 ft ²

Note: All layers of insulation fastened into the steel deck. 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: Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Sure-Weld Bonding Adhesive or Low VOC Bonding Adhesive. The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 60 ft²/gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

Maximum Design Pressure: -97.5 psf (See General Limitation #7)



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners spaced 6 inches on center along each structural support. Deck side laps secured 24 inches on center with ITW Buildex Traxx/1 fasteners.
 Or
 Minimum 20 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 65-inches on center with ITW Buildex Traxx/5 fasteners spaced 6 inches on center along each structural support. Deck side laps secured 24 inches on center with ITW Buildex Traxx/1 fasteners.
 Or
 Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 58-inches on center with ITW Buildex Traxx/5 fasteners spaced 6 inches on center along each structural support. Deck side laps secured 24 inches on center with ITW Buildex Traxx/1 fasteners.
 Or
 Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners spaced 6 inches on center along each structural support. Deck side laps secured 24 inches on center with ITW Buildex Traxx/1 fasteners.

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

System Type C(27): All layers of insulation simultaneously attached; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum ½-inch thick	1, 2 with 5	1:1 ft ²

Note: All layers of insulation fastened into the steel deck. 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: Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Low VOC Bonding Adhesive. The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 60 ft²/gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type:	Single Ply, Thermoplastic, TPO, Reinforced
Deck Type 2I:	Steel, Insulated
Deck Description:	Minimum 18 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners spaced 6 inches on center along each structural support. Deck side laps secured 24 inches on center with ITW Buildex Traxx/1 fasteners. Or Minimum 20 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 65-inches on center with ITW Buildex Traxx/5 fasteners spaced 6 inches on center along each structural support. Deck side laps secured 24 inches on center with ITW Buildex Traxx/1 fasteners. Or Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 58-inches on center with ITW Buildex Traxx/5 fasteners spaced 6 inches on center along each structural support. Deck side laps secured 24 inches on center with ITW Buildex Traxx/1 fasteners. Or Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners spaced 6 inches on center along each structural support. Deck side laps secured 24 inches on center with ITW Buildex Traxx/1 fasteners. This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.
System Type C(28):	All layers of insulation simultaneously attached; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum ½-inch thick	1, 2 with 5	1:1 ft ²

Note: All layers of insulation fastened into the steel deck. 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:	Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Low VOC Bonding Adhesive. The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 60 ft ² /gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.
Maximum Design Pressure:	–127.5 psf (See General Limitation #7)



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners spaced 6 inches on center along each structural support. Deck side laps secured 24 inches on center with ITW Buildex Traxx/1 fasteners.

Or

Minimum 20 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 63-inches on center with ITW Buildex Traxx/5 fasteners spaced 6 inches on center along each structural support. Deck side laps secured 24 inches on center with ITW Buildex Traxx/1 fasteners.

Or

Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 57-inches on center with ITW Buildex Traxx/5 fasteners spaced 6 inches on center along each structural support. Deck side laps secured 24 inches on center with ITW Buildex Traxx/1 fasteners.

Or

Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners spaced 6 inches on center along each structural support. Deck side laps secured 24 inches on center with ITW Buildex Traxx/1 fasteners.

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

System Type C(29): All layers of insulation simultaneously attached; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield , SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum ½-inch thick	1, 2 with 5	1:1 ft ²

Note: All layers of insulation fastened into the steel deck. 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:

Sure-Weld FleeceBACK membrane adhered to the insulation with Flexible FAST, Flexible FAST Dual Cartridge or Flexible FAST 5-Gallon Jug Adhesive applied to the substrate in approximately $\frac{3}{4}$ to 1-inch wide beads spaced 4-inches on center or applied in a full coverage. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

**Maximum Design
Pressure:**

–135 psf (See General Limitation #7)



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

System Type C(30): All layers of insulation simultaneously attached; membrane 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.

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield,, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 2-inch thick	1, 2 with 5	1:4 ft ²

Note: All layers shall be simultaneously fastened. 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: Sure-Weld FleeceBACK membrane adhered to the insulation with HydroBond Water-Based Bonding Adhesive. The adhesive shall be applied to the substrate only at a rate of 120 ft²/gallon. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

System Type C(31): All layers of insulation simultaneously attached; membrane 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.

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG , H-Shield HD Composite Minimum 1.5-inch thick	1, 2 with 5	1:2 ft ²

Note: All layers shall be simultaneously fastened. 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: Sure-Weld FleeceBACK membrane adhered to the insulation with HydroBond Water-Based Bonding Adhesive. The adhesive shall be applied to the substrate only at a rate of 120 ft²/gallon. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

System Type C(32): All layers of insulation simultaneously attached; membrane 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.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
SecurShield, SecurShield HD Composite, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	1, 2 with 5	1:3.2 ft ²

Note: All layers shall be simultaneously fastened. 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: Sure-Weld FleeceBACK membrane adhered to the insulation with HydroBond Water-Based Bonding Adhesive. The adhesive shall be applied to the substrate only at a rate of 120 ft²/gallon. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type C(33): All layers of insulation simultaneously attached; membrane 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.

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, H-Shield Minimum 2-inch thick	1, 2, 4 with 5	1:1.66 ft ²

Note: All layers shall be simultaneously fastened. 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: Sure-Weld FleeceBACK membrane adhered to the insulation with HydroBond Water-Based Bonding Adhesive. The adhesive shall be applied to the substrate only at a rate of 120 ft²/gallon. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type C(34): All layers of insulation simultaneously attached; membrane 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.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
SecurShield, SecurShield HD Composite, H-Shield CG, H-Shield HD Composite Minimum 2-inch thick	1, 2 with 5	1:2 ft ²

Note: All layers shall be simultaneously fastened. 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: Sure-Weld FleeceBACK membrane adhered to the insulation with HydroBond Water-Based Bonding Adhesive. The adhesive shall be applied to the substrate only at a rate of 120 ft²/gallon. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

System Type C(35): All layers of insulation simultaneously attached; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum 1/4-inch thick	1, 2 with 5	1:2 ft ²

Note: All layers of insulation fastened into the steel deck. 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: Sure-Weld FleeceBACK membrane adhered to the insulation with HydroBond Water-Based Bonding Adhesive. The adhesive shall be applied to the substrate only at a rate of 120 ft²/gallon. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

System Type C(36): All layers of insulation simultaneously attached; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum ½-inch thick	1, 2 with 5	1:3.2 ft ²

Note: All layers of insulation fastened into the steel deck. 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: Sure-Weld FleeceBACK membrane adhered to the insulation with HydroBond Water-Based Bonding Adhesive. The adhesive shall be applied to the substrate only at a rate of 120 ft²/gallon. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

System Type C(37): All layers of insulation simultaneously attached; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG , H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum 5/8-inch thick	1, 2 with 5	1:4 ft ²

Note: All layers of insulation fastened into the steel deck. 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: Sure-Weld FleeceBACK membrane adhered to the insulation with HydroBond Water-Based Bonding Adhesive. The adhesive shall be applied to the substrate only at a rate of 120 ft²/gallon. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

System Type C(38): All layers of insulation simultaneously attached; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG , H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum 5/8-inch thick	1, 2 with 5	1:4 ft ²

Note: All layers of insulation fastened into the steel deck. 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: Sure-Weld FleeceBACK membrane adhered to the insulation with HydroBond Water-Based Bonding Adhesive. The adhesive shall be applied to the substrate only at a rate of 120 ft²/gallon. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type C(39): All layers of insulation simultaneously attached; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield , SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1-inch thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
SECUROCK Gypsum-Fiber Roof Board Minimum ½-inch thick	1, 2, 4 with 5	1:1.66 ft ²

Note: All layers of insulation fastened into the steel deck. 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: Sure-Weld FleeceBACK membrane adhered to the insulation with HydroBond Water-Based Bonding Adhesive. The adhesive shall be applied to the substrate only at a rate of 120 ft²/gallon. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

System Type C(40): All layers of insulation simultaneously attached; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Dens Deck Prime Minimum ½-inch thick	1, 2, 4 with 5	1:3.2 ft ²

Note: All layers of insulation fastened into the steel deck. 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: Sure-Weld FleeceBACK membrane adhered to the insulation with HydroBond Water-Based Bonding Adhesive. The adhesive shall be applied to the substrate only at a rate of 120 ft²/gallon. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

System Type C(41): All layers of insulation simultaneously attached; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Dens Deck Prime Minimum ¼-inch thick	9, 10, 11 with 13	1:2.7 ft ²

Note: All layers of insulation fastened into the steel deck. 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: Sure-Weld FleeceBACK membrane adhered to the insulation with HydroBond Water-Based Bonding Adhesive. The adhesive shall be applied to the substrate only at a rate of 120 ft²/gallon. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type C(42): All layers of insulation simultaneously attached; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1-inch thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Dens Deck Prime Minimum ½-inch thick	1, 2, with 5	1:1.66 ft ²
Plywood Minimum 19/32-inch thick	1, 2, with 5	1:1.66 ft ²

Note: All layers of insulation fastened into the steel deck. 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: Sure-Weld FleeceBACK membrane adhered to the insulation with HydroBond Water-Based Bonding Adhesive. The adhesive shall be applied to the substrate only at a rate of 120 ft²/gallon. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced, FleeceBACK

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

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

System Type C(43): Base layer(s) of insulation fastened, top layer adhered; membrane 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.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Insulfoam EPS Minimum 3-inch thick	1, 2, 4 with 5	1:2 ft ²

Note: The base layer of insulation is fastened into the steel deck. 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.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Insulfoam Insul-Lam Minimum 2-inch thick	N/A	N/A

Note: Top insulation layer is adhered with Carlisle Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or Flexible FAST Dual Tank Adhesives applied to the base layer in approximately ¾ to 1-inch wide beads spaced 6-inches on center.

Membrane: Sure-Weld, Sure-Weld EXTRA or Sure-Weld HS membrane adhered to the insulation using Sure-Weld Bonding Adhesive or Low VOC Bonding Adhesive. The adhesive is applied in a contact application and is applied to both the underside of the roofing membrane and the top side of the approved substrate at a rate of 60 ft²/gallon, finished surface area. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

OR

Sure-Weld FleeceBACK membrane adhered to the insulation with Flexible FAST, Flexible FAST Dual Cartridge or Flexible FAST 5-Gallon Jug Adhesive applied to the substrate in approximately ¾ to 1-inch wide beads spaced 6-inches on center. Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW #12 HWH Tek/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW #10 HWH Tek/1 at a maximum spacing of 24 inches on center.

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

System Type D(1): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick		
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Single and multiple layers of insulation can be attached to the deck with Carlisle Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or FAST Dual Tank, Carlisle Olybond 500BA, Carlisle One-Step Adhesive Millennium One Step Foamable Adhesive.

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.

Membrane: Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.

Fastening Option #1: Mechanically fastened 12-inches on center through the field seams rows 72-inches on center using HPX Fasteners and Piranha Plates.
Maximum Design Pressure: -45psf (See General Limitation #7)



Fastening Option #2: Mechanically fastened 12-inches on center through the field seams rows 48-inches on center using HPX Fasteners and Piranha Plates.
Maximum Design Pressure: -52.5psf (See General Limitation #7)



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW #12 HWH Tek's/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW #10 HWH Tek's/1 at a maximum spacing of 24 inches on center.

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

System Type D(2): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Single and multiple layers of insulation can be attached to the deck with Carlisle Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or FAST Dual Tank, Carlisle Olybond 500BA, Carlisle One-Step Adhesive Millennium One Step Foamable Adhesive.

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.

Membrane: Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.



Fastening #1	Mechanically fastened 12-inches on center through the field seams using HPX Fasteners and Piranha Plates. Rows 8-feet on center.
Maximum Design Pressure:	-45psf (See General Limitation #7)



Membrane Type:	Single Ply, Thermoplastic, TPO, Reinforced
Deck Type 2I:	Steel, Insulated
Deck Description:	Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 66-inches on center with ITW #12 HWH Teks/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW #10 HWH Teks/1 at a maximum spacing of 24 inches on center. Or Minimum 20 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW #12 HWH Teks/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW #10 HWH Teks/1 at a maximum spacing of 24 inches on center. Or Minimum 20 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 48-inches on center with ITW #12 HWH Teks/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW #10 HWH Teks/1 at a maximum spacing of 24 inches on center. Or Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 66-inches on center with ITW #12 HWH Teks/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW #10 HWH Teks/1 at a maximum spacing of 24 inches on center. Or Minimum 18 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 60-inches on center with ITW #12 HWH Teks/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW #10 HWH Teks/1 at a maximum spacing of 24 inches on center. This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submittal Table.
System Type D(3):	Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick		
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A



Note: Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Single and multiple layers of insulation can be attached to the deck with Carlisle Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or Flexible FAST Dual Tank, Carlisle Olybond 500BA, Carlisle One-Step Adhesive Millennium One Step Foamable Adhesive.

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.

Membrane: Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.

Fastening: Mechanically fastened 6-inches on center through the field seams using HPX Fasteners and Piranha Plates Rows 12-inches on Cener

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type D(4): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick		
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.

Membrane: Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.

Fastening: Fastened 12-inches on center through the field seams using HPX Fasteners and Piranha Plates rows spaced 10-feet on center.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

Or

Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 66-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type D(5): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick		
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.

Membrane: Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.

Fastening: Fastened 12-inches on center through the field seams using HPX Fasteners and Piranha Plates rows spaced 10-feet on center.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

Or

Minimum 20 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 48-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

Or

Minimum 20 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

Or

Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

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

System Type D(6): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Minimum 1.2-inch thick		
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.



Membrane:	Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.
Fastening:	Fastened 6-inches on center through the field seams using HPX Fasteners and Piranha Plates rows spaced 8-feet on center.
Maximum Design Pressure:	-52.5 psf. (See General Limitation #7)



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.
Or
Minimum 18 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 60-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type D(7): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick		
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.

Membrane: Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.

Fastening: Fastened 12-inches on center through the field seams using HPX Fasteners and Piranha Plates rows spaced 10-feet on center.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 48-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

Or

Minimum 18 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

Or

Minimum 20 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 60-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

Or

Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 48-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

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

System Type D(8): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG , H-Shield HD Composite Minimum 1.2-inch thick		
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.



Membrane:	Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.
Fastening:	Fastened 12-inches on center through the field seams using HPX Fasteners and Piranha Plates rows spaced 12-feet on center.
Maximum Design Pressure:	-52.5 psf. (See General Limitation #7)



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

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

System Type D(9): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick		
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.

Membrane: Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.

Fastening: Fastened 6-inches on center through the field seams using HPX Fasteners and Piranha Plates rows spaced 8-feet on center.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

Or

Minimum 20 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 66-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

Or

Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 48-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

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

System Type D(10): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.

Membrane: Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.



Fastening #1	Fastened 6-inches on center through the field seams using HPX Fasteners and Piranha Plates rows spaced 10-feet on center.
Maximum Design Pressure:	-60 psf. (See General Limitation #7)



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

Or

Minimum 20 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 66-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

Or

Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 48-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

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

System Type D(11): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.

Membrane: Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.



Fastening: 10-inch wide Sure-Weld Pressure Sensitive RUSS spaced maximum 10-feet on center and secured with HPX Fasteners and Piranha Plates spaced 6-inches on center.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

Or

Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

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

System Type D(12): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick		
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.

Membrane: Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.

Fastening: 10-inch wide Sure-Weld Pressure Sensitive RUSS spaced maximum 5-feet on center and secured with HPX Fasteners and Piranha Plates spaced 12-inches on center.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

Or

Minimum 20 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 54-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

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

System Type D(13): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick		
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.

Membrane: Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.

Fastening: Fastened 6-inches on center through the field seams using HPX Fasteners and Piranha Plates rows spaced 12-feet on center

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

Or

Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

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

System Type D(14): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick		
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.

Membrane: Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.

Fastening: 10-inch wide Sure-Weld Pressure Sensitive RUSS spaced maximum 5-feet on center and secured with HPX Fasteners and Piranha Plates spaced 12-inches on center.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 20 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

Or

Minimum 18 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

Or

Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 60-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 30 inches on center.

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

System Type D(15): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick		
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.

Membrane: Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.



Fastening: Fastened 6-inches on center through the field seams using HPX Fasteners and Piranha Plates rows spaced 8-feet on center

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga. to 20 ga, Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

Or

Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 60-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

Or

Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type D(16): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
<u>Base and/or Top Insulation Layer</u> InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick		
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.

Membrane: Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.



Fastening: Fastened 6-inches on center through the field seams using HPX Fasteners and Piranha Plates rows spaced 4-feet on center

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type D(17): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Single and multiple layers of insulation can be attached to the deck with Carlisle Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or Flexible FAST Dual Tank Carlisle Olybond 500BA, Millennium One Step Foamable Adhesive.

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Membrane: Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.

Fastening: Fastened 12-inches on center through the field seams using HPX Fasteners and Piranha Plates or Trufast #15 EHD Fastener and Trufast 2.4-inch Barbed Metal Seam Plate rows spaced 8-feet on center

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 16 -18 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 60-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

Or

Minimum 20 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 48-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

Or

Minimum 18-20 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

Or

Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 66-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type D(18): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Single and multiple layers of insulation can be attached



to the deck with Carlisle Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or Flexible FAST Dual Tank Carlisle Olybond 500BA, Millennium One Step Foamable Adhesive.

- Vapor Retarder:** (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.
- Membrane:** Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.
- Fastening:** Fastened 6-inches on center through the field seams using HPX Fasteners and Piranha Plates or Trufast #15 EHD Fastener and Trufast 2.4-inch Barbed Metal Seam Plate rows spaced 10-feet on center.
- Maximum Design Pressure:** -45 psf. (See General Limitation #7)



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 48-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

Or

Minimum 18 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

Or

Minimum 20 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 60-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

Or

Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 48-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type D(19): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Single and multiple layers of insulation can be attached



to the deck with Carlisle Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or Flexible FAST Dual Tank, Carlisle Olybond 500BA, Millennium One Step Foamable Adhesive.

- Vapor Retarder:** (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.
- Membrane:** Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.
- Fastening:** Fastened 6-inches on center through the field seams using HPX Fasteners and Piranha Plates or Trufast #15 EHD Fastener and Trufast 2.4-inch Barbed Metal Seam Plate rows spaced 12-feet on center
- Maximum Design Pressure:** -52.5 psf. (See General Limitation #7)



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18-22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type D(20): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Single and multiple layers of insulation can be attached to the deck with Carlisle Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or Flexible FAST Dual Tank, Carlisle Olybond 500BA, Millennium One Step Foamable Adhesive.

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Membrane: Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.

Fastening: Fastened 12-inches on center through the field seams using HPX Fasteners and Piranha Plates or Trufast #15 EHD Fastener and Trufast 2.4-inch Barbed Metal Seam Plate rows spaced 4-feet on center

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

Or

Minimum 20 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 48-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

Or

Minimum 20 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

Or

Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type D(21): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A



Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Single and multiple layers of insulation can be attached to the deck with Carlisle Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or Flexible FAST Dual Tank, Carlisle Olybond 500BA, Millennium One Step Foamable Adhesive.

- Vapor Retarder:** (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.
- Membrane:** Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.
- Fastening:** Fastened 6-inches on center through the field seams using HPX Fasteners and Piranha Plates or Trufast #15 EHD Fastener and Trufast 2.4-inch Barbed Metal Seam Plate rows spaced 8-feet on center
- Maximum Design Pressure:** -52.5 psf. (See General Limitation #7)



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

Or

Minimum 20 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 66-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

Or

Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 48-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type D(22): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Single and multiple layers of insulation can be attached to the deck with Carlisle Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or Flexible FAST Dual Tank, Carlisle Olybond 500BA, Millennium One Step Foamable Adhesive.



Vapor Retarder:	(Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.
Membrane:	Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.
Fastening:	Fastened 6-inches on center through the field seams using HPX Fasteners and Piranha Plates or Trufast #15 EHD Fastener and Trufast 2.4-inch Barbed Metal Seam Plate rows spaced 10-feet on center
Maximum Design Pressure:	-60 psf. (See General Limitation #7)



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

Or

Minimum 20 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 54-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type D(23): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Single and multiple layers of insulation can be attached to the deck with Carlisle Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or Flexible FAST Dual Tank, Carlisle Olybond 500BA, Millennium One Step Foamable Adhesive.



Vapor Retarder:	(Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.
Membrane:	Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.
Fastening:	Fastened 6-inches on center through the field seams using HPX Fasteners and Piranha Plates or Trufast #15 EHD Fastener and Trufast 2.4-inch Barbed Metal Seam Plate rows spaced 12-feet on center
Maximum Design Pressure:	-60.0 psf. (See General Limitation #7)



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type D(24): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Single and multiple layers of insulation can be attached to the deck with Carlisle Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or Flexible FAST Dual Tank, Carlisle Olybond 500BA, Millennium One Step Foamable Adhesive.

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Membrane: Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.

Fastening: Fastened 6-inches on center through the field seams using HPX Fasteners and Piranha Plates or Trufast #15 EHD Fastener and Trufast 2.4-inch Barbed Metal Seam Plate rows spaced 8-feet on center.

Maximum Design Pressure: -60.0 psf. (See General Limitation #7)



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 to 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

Or

Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 60-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type D(25): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick	N/A	N/A
<u>SecurShield HD or H-Shield HD</u> <u>Minimum ½-inch thick</u>	N/A	N/A
<u>SECUROCK Gypsum Fiber or Glass Mat Roof Board</u> <u>Minimum ¼-inch thick</u>	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Single and multiple layers of insulation can be attached to the deck with Carlisle Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or Flexible FAST Dual Tank Carlisle Olybond 500BA, Millennium One Step Foamable Adhesive.



Vapor Retarder:	(Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.
Membrane:	Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.
Fastening:	Fastened 6-inches on center through the field seams using HPX Fasteners and Piranha Plates or Trufast #15 EHD Fastener and Trufast 2.4-inch Barbed Metal Seam Plate rows spaced 8-feet on center
Maximum Design Pressure:	-67.5 psf. (See General Limitation #7)



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type D(26): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Single and multiple layers of insulation can be attached to the deck with Carlisle Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive Flexible FAST Dual Tank Carlisle Olybond 500BA, Millennium One Step Foamable Adhesive.

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Membrane: Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.

Fastening: Fastened 6-inches on center through the field seams using HPX Fasteners and Piranha Plates or Trufast #15 EHD Fastener and Trufast 2.4-inch Barbed Metal Seam Plate rows spaced 4-feet on center

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18-22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

Or

Minimum 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 60-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type D(27): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Single and multiple layers of insulation can be attached to the deck with Carlisle Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive Flexible FAST Dual Tank Carlisle Olybond 500BA, Millennium One Step Foamable Adhesive.

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Membrane: Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.



Fastening: Fastened 6-inches on center through the field seams using HPX Fasteners and Piranha Plates or Trufast #15 EHD Fastener and Trufast 2.4-inch Barbed Metal Seam Plate rows spaced 4-feet on center.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type D(28): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.2-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Single and multiple layers of insulation can be attached to the deck with Carlisle Flexible FAST, Flexible FAST Dual Cartridge, Flexible FAST 5-Gallon Jug Adhesive or Flexible FAST Dual Tank, Carlisle Olybond 500BA, Millennium One Step Foamable Adhesive.

Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.

Membrane: Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA, Reinforced, secured through the preliminarily attached insulation as specified below.

Fastening: Fastened 6-inches on center through the field seams using HPX Fasteners and Piranha Plates or Trufast #15 EHD Fastener and Trufast 2.4-inch Barbed Metal Seam Plate rows spaced 4-feet on center

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type D(29): Membrane mechanically attached over preliminarily 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.

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: All layers of insulation shall be simultaneously attached. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Thermal Barrier: (Optional) Thermal barrier of any approved type or thickness, loose-laid, adhered or mechanically attached.

Membrane: Minimum 60-mil Sure-Weld or Sure-Weld EXTRA membrane secured through the preliminarily attached insulation as specified below.

Fastening: 10-foot wide Sure-Weld, or Sure-Weld EXTRA membrane mechanically fastened 6-inches on center through the field seams using HPX Fasteners and Piranha Plates

Membrane Splices: Overlap membrane splices a minimum of 5-1/2 inches to provide for a minimum 1-1/2 inch heat weld along the outside edge.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 16 - 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 24 inches on center.

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

System Type D(30): Membrane induction welded over mechanically fastened insulation.

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

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: All layers of insulation shall be simultaneously attached. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

Membrane: Sure-Weld or Sure-Weld EXTRA membrane induction welded over mechanically fastened insulation.

Fastening: Attached with HPX Fasteners and RhinoBond Plates-TPO at the minimum rate of 1:5.33 ft² (6 per 4 ft by 8 ft board).

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 - 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

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

System Type D(31): Membrane induction welded over mechanically fastened insulation.

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

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
SecurShield HD or H-Shield Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: All layers of insulation shall be simultaneously attached. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

Membrane: Sure-Weld or Sure-Weld EXTRA membrane induction welded over mechanically fastened insulation.

Fastening: Attached with HPX Fasteners and RhinoBond Plates-TPO at the minimum rate of 1:4 ft² (8 per 4 ft by 8 ft board).

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 - 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

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

System Type D(32): Membrane induction welded over mechanically fastened insulation.

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

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: All layers of insulation shall be simultaneously attached. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

Membrane: Sure-Weld or Sure-Weld EXTRA membrane induction welded over mechanically fastened insulation.

Fastening: Attached with HPX Fasteners and RhinoBond Plates-TPO at the minimum rate of 1:4 ft² (8 per 4 ft by 8 ft board).

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 - 22 ga., Type B, Grade 33 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

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

System Type D(33): Membrane induction welded over mechanically fastened insulation.

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

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: All layers of insulation shall be simultaneously attached. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

Membrane: Sure-Weld or Sure-Weld EXTRA membrane induction welded over mechanically fastened insulation.

Fastening: HPX Fasteners and RhinoBond Plates-TPO at the minimum rate of 1:2 ft² (16 per 4 ft by 8 ft board).

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 - 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

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

System Type D(34): Membrane induction welded over mechanically fastened insulation.

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

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: All layers of insulation shall be simultaneously attached. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

Membrane: Sure-Weld or Sure-Weld EXTRA membrane induction welded over mechanically fastened insulation.

Fastening: HPX Fasteners and RhinoBond Plates-TPO at the minimum rate of 1:2 ft² (16 per 4 ft by 8 ft board).

Maximum Design Pressure: -97.5 psf. (See General Limitation #7)



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 16 - 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex #10 HWH Tek 1 fasteners at a maximum spacing of 12 inches on center.

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

System Type D(35): Membrane induction welded over mechanically fastened insulation.

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

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: All layers of insulation shall be simultaneously attached. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

Membrane: Sure-Weld or Sure-Weld EXTRA membrane induction welded over mechanically fastened insulation.

Thermal Barrier: (Optional) Thermal barrier of any approved type or thickness, loose-laid, adhered or mechanically attached.

Membrane Assembly: RhinoBond Plate and HPX Fasteners are installed 12-inches on center, in rows spaced maximum 5-feet on center. Minimum 60-mil Sure-Weld or Sure-Weld EXTRA membrane induction welded to RhinoBond Plates-TPO using RhinoBond induction tool.

Membrane Splices: Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld along the outside edge.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

Or

Minimum 18 - 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

Or

Minimum 18 - 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 54-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

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

System Type D(36): Membrane induction welded over mechanically fastened insulation.

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

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: All layers of insulation shall be simultaneously attached. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

Thermal Barrier: (Optional) Thermal barrier of any approved type or thickness, loose-laid, adhered or mechanically attached.

Membrane Assembly: RhinoBond Plate and HPX Fasteners are installed 6-inches on center, in rows spaced maximum 10-feet on center. Minimum 60-mil Sure-Weld or Sure-Weld EXTRA membrane induction welded to RhinoBond Plates-TPO using RhinoBond induction tool.



Membrane Splices: Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld along the outside edge.

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



Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 - 22 ga., Type B, Grade 80 steel deck secured to structural steel supports spaced a maximum 72-inches on center with ITW Buildex Traxx/5 fasteners at a maximum of 6 inches on center. Deck side laps are secured with ITW Buildex Traxx/1 at a maximum spacing of 12 inches on center.

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

System Type D(37): Membrane induction welded over mechanically fastened insulation.

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

<u>Base and/or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
InsulBase, SecurShield, SecurShield HD Composite, H-Shield, H-Shield CG, H-Shield HD Composite Minimum 1.5-inch thick	N/A	N/A
SecurShield HD or H-Shield HD Minimum ½-inch thick	N/A	N/A
SECUROCK Gypsum Fiber or Glass Mat Roof Board Minimum ¼-inch thick	N/A	N/A
Dens Deck, Dens Deck Prime Minimum ¼-inch thick	N/A	N/A

Note: All layers of insulation shall be simultaneously attached. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

Thermal Barrier: (Optional) Thermal barrier of any approved type or thickness, loose-laid, adhered or mechanically attached.

Membrane Assembly: RhinoBond Plate and HPX Fasteners are installed 6-inches on center, in rows spaced maximum 5-feet on center. Minimum 60-mil Sure-Weld or Sure-Weld EXTRA membrane induction welded to RhinoBond Plates-TPO using RhinoBond induction tool.

Membrane Splices: Overlap membrane splices a minimum of 2 inches to provide for a minimum 1-1/2 inch heat weld along the outside edge.

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



STEEL DECK SYSTEM LIMITATIONS:

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



GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All membranes or packaging shall bear the imprint or identifiable marking of the manufacturer's name or logo and the following statement: "Miami-Dade County Product Control Approved" or the Miami-Dade County Product Control Seal as shown below.



11. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE



NOA No.: 24-1210.06
Expiration Date: 08/31/29
Approval Date: 05/07/26
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