MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
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Miami, Florida 33175-2474
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DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

DURO-LAST a division of Holcim Solutions and Products US, LLC
525 Morley Drive
Saginaw, MI 48601

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: DURO-LAST Single Ply PVC 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.

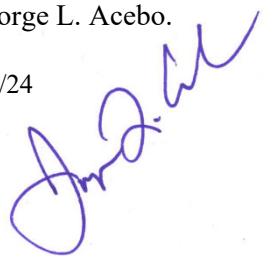
TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this 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 No. 23-0509.11 and consists of pages 1 through 38 .
The submitted documentation was reviewed by Jorge L. Acebo.

11/28/24



MIAMI-DADE COUNTY APPROVED

NOA No.: 24-0305.22
Expiration Date: 08/22/28
Approval Date: 11/28/24

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Single Ply
Materials: PVC
Deck Type: Steel
Maximum Design Pressure: -135 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
Duro-Last Membrane	.037" thick, Various widths x 150 ft. rolls	ASTM D4434	PVC polymer blend polyester reinforced roofing membrane.
Duro-Last Membrane	.045" thick, Various widths x 100 ft. rolls	ASTM D4434	PVC polymer blend polyester reinforced roofing membrane.
Duro-Last Membrane	.057" thick, Various widths x 100 ft. rolls	ASTM D4434	PVC polymer blend polyester reinforced roofing membrane.
Duro-Fleece Membrane	.047" thick, . Various widths x 100 ft. rolls	ASTM D4434	PVC polymer blend polyester reinforced fleece backed roofing membrane.
Duro-Fleece Membrane	.056" thick, Various widths x 100 ft. rolls	ASTM D4434	PVC polymer blend polyester reinforced fleece backed roofing membrane.
Duro-Fleece Membrane	.080” thick Various widths x 65 ft rolls	ASTM D4434	PVC polymer blend polyester reinforced fleece backed roofing membrane.
Duro-Tuff Membrane	.045” thick Vaious widths x 100 ft. rolls	ASTM D4434	PVC polymer blend polyester reinforced roofing membrane.
Duro-Tuff Membrane	.057” thick Various widths x 100 ft. rolls	ASTM D4434	PVC polymer blend polyester reinforced roofing membrane.
Duro-Tuff Membrane	.080” thick Various widths x 65 ft. rolls	ASTM D4434	PVC polymer blend polyester reinforced roofing membrane.
Duro-Last Tab Sealer 4725	5 gal.	Proprietary	Solvent-based contact-bonding agent.

APPROVED INSULATIONS: **TABLE 2**

Product Name	Product Description	Manufacturer (With Current NOA)
ACFoam II, ACFoam III	Polyisocyanurate foam insulation	Atlas Roofing Corp
ISO 95+ GL	Polyisocyanurate foam insulation	Holcim Solutions and Products US, LLC
SECUROCK Gypsum-Fiber Roof Board	Gypsum roof board	United States Gypsum Corporation
SECUROCK Glass-Mat Roof Board	Gypsum roof board with fiberglass facer	United States Gypsum Corporation
DensDeck, DensDeck Prime	Silicon treated gypsum	Georgia-Pacific Gypsum LLC
Cellofoam Type IX EPS Insulation	Type IX Expanded Polystyrene (EPS)	Cellofoam North America, Inc.
H-Shield	Polyisocyanurate foam insulation	Hunter Panels, a division of Carlisle Construction Materials, LLC.
ENRGY 3	Polyisocyanurate foam insulation	Johns Manville
Kingspan GreenGuard Insulation Board CM	Extruded Polystyrene insulation	Kingspan Insulation, LLC
Multi-Max FA-3	Polyisocyanurate foam insulation	Rmax, A Business Unit of Sika Corporation
Duro-Guard EPS	Expanded polystyrene	DURO-LAST a division of Holcim Solutions and Products US, LLC
Duro-Guard EPS FGF	Expanded polystyrene	DURO-LAST a division of Holcim Solutions and Products US, LLC
Insulfoam EPS	Polystyrene roof board insulation	Insulfoam a Division of Carlisle Construction Materials, Inc.
R-Tech Fan Fold	Type IX Expanded polystyrene with polymeric facers	Insulfoam a Division of Carlisle Construction Materials, Inc.
Thermaroof Composite-3	Polyisocyanurate foam insulation laminated to perlite	Rmax Operating, LLC
Duro-Fold Underlayment Board	Extruded polystyrene with polypropylene facer	DURO-LAST a division of Holcim Solutions and Products US, LLC
Duro-Guard Iso II-H & Tapered, Duro-Guard Iso III-H & Tapered,	Polyisocyanurate foam insulation	DURO-LAST a division of Holcim Solutions and Products US, LLC
Duro-Guard Iso II-A & Tapered, Duro-Guard Iso III-A & Tapered,	Polyisocyanurate foam insulation	DURO-LAST a division of Holcim Solutions and Products US, LLC
DEXcell Cement Roof Board	Cementitious core, fiberglass mesh facer insulation/roofing board	National Gypsum Company
DEXcell FA Glass Mat Roof Board	Gypsum core, heavy duty glass mat facer insulation/roof board	National Gypsum Company

APPROVED FASTENERS/ADHESIVES:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Duro-Last 3" Metal Plates	Galvalume steel stress plates.	3" square	DURO-LAST a division of Holcim Solutions and Products US, LLC
2.	Duro-Last Insulation Plates	Round plastic stress plates.	3" round	DURO-LAST a division of Holcim Solutions and Products US, LLC
3.	Duro-Last Poly-Plates	Round plastic stress plates.	2" round	DURO-LAST a division of Holcim Solutions and Products US, LLC
4.	Duro-Last #15 Extra Heavy Duty Drill Point Fastener	Corrosion resistant, drill point with a #3 Phillips truss head	Various Lengths	DURO-LAST a division of Holcim Solutions and Products US, LLC
5.	Eyehook Accuseam Plates	Stress plates	2-3/8"	OMG, Inc.
6.	Duro-Last Cleat Plates	0.035" thick galvalume stress plate	2-3/8"	DURO-LAST a division of Holcim Solutions and Products US, LLC
7.	Duro-Last #14 HD Fastener	Roofing and insulation fasteners	Various Lengths	DURO-LAST a division of Holcim Solutions and Products US, LLC
8.	OMG XHD	#15 carbon steel fastener	Various	OMG, Inc.
9.	Trufast DP #12 Fasteners	Carbon steel screw with #3 phillips drive	#12 x 8" max. length	Altenloh, Brinck & Co. U.S., Inc.
10.	Duro-Bond Plate 1302	Round, coated galvalume plate (Gold and Black)	3" round	DURO-LAST a division of Holcim Solutions and Products US, LLC
11.	Trufast 3" Metal Insulation Plate	Round stress plate with reinforcing ribs	3" round	Altenloh, Brinck & Co. U.S., Inc.
12.	Dekfast DF-#15-PH3 Fastener	#3 Phillpis drive fastener for use with steel, wood and concrete decks	Various	SFS Group USA, Inc.
13.	Isoweld F1-P-6.8-PVC Plate	G-90 steel plate with PVC coating for insulation	3" dia.	SFS Group USA, Inc.
14.	OlyBond 500	Two-component, low-rise polyurethane foam adhesive	10 gallon Bag-in-Box sets or 1,500 ml cartridges	OMG, Inc.
15.	Duro-Last WB II Adhesive	Polymeric waterborne membrane adhesive.	5 gal. pail	DURO-LAST a division of Holcim Solutions and Products US, LLC
16.	Duro-Last SB IV	Low VOC solvent-based membrane adhesive.	5 gal. pail	DURO-LAST a division of Holcim Solutions and Products US, LLC

APPROVED FASTENERS/ADHESIVES:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
17.	Duro-Grip Weather-Tite One Step	Insulation Adhesive	1.5 Liter Cartridge	DURO-LAST a division of Holcim Solutions and Products US, LLC
18.	Duro-Grip CR-20 Adhesive	Dual component, low-rise polyurethane foam adhesive	Kit covers 2,000 ft^2	DURO-LAST a division of Holcim Solutions and Products US, LLC
19.	Duro-Fleece CR-20 Adhesive	Dual component, low-rise polyurethane foam adhesive	Kit covers 2,000 ft^2	DURO-LAST a division of Holcim Solutions and Products US, LLC

EVIDENCE SUBMITTED:

Test Agency/Identifier	Name	Report	Date
FM Approvals	4D6A4.AM	Class 4470	08/09/99
	3005604	Class 4470	03/13/00
	3026508	Class 4470	05/03/07
	3040346	Class 4470	09/28/11
	3040741	Class 4470	12/02/11
	3044466	Class 4470	11/07/12
	PR454634	FM 4470	02/08/21
UL LLC	R10128	UL790	09/19/24
	R11183	UL723	08/09/21
RADCO	RAD-5135	ASTM C578	05/02/12
Trinity|ERD	D43030.1.13-R1	TAS 114(J)/TAS 117(A)	10/02/13
	C8500SC.11.07	TAS 117(B)	11/30/07
	SFS-SC10010.02.16-R1	TAS 114 J	07/06/16
PRI Construction Materials Technologies, LLC	DLRI-021-02-01.12	ASTM D1876/D1761 TAS 117(A)/(B) TAS 114(D)	05/09/19
	DLRI-068-02-01.2	TAS 114(J)	08/15/14
	DLRI-070-02-01	TAS 114 (J)	07/30/14
	DLRI-073-02-01.1	TAS 114(J)	04/23/15
	DLRI-077-02-01.1	TAS 114(J)	04/15/15
	DLRI-86-02-02.1	TAS 114(J)	10/07/15
	DLRI-090-02-01	TAS 114(J)	02/01/16
	DLRI-096-02-01.1	TAS 114(J)	08/28/17
Intertek Testing Services, NA Inc.	3119586-001	TAS 111	07/10/07
NEMO ETC, LLC	4r-DL-19-SSTHP-01.A.R2	ASTM D4434	04-29-20
	4r-DL-19-SSTHP-01.B	ASTM D4434	04-29-20
	4p-DL-23-SSLAP-01.A	Various properties	06-09-23

DECK STRESS ANALYSIS CALCULATIONS/REPORTS

Engineer/Agency	Identifier	Assemblies	Date
FM Approval Deck Limitations	N/A	C(1), C(2), C(3), C(15), D(1), D(2), D(4), D(5), D(6),	01/01/13
Zachary R. Priest, P.E.	Signed/Sealed Calculations	A	08/28/17
		D(3)	02/01/16
		C(4), C(5), C(6), C(7), C(8),	02/18/16
		C(9), C(10), C(12), C(13)	02/18/16
		D(7), D(8)	02/19/16
		C(14), C(16), C(17), C(18)	07/24/17
		D(9), D(10), D(11)	10/07/15

APPROVED ASSEMBLIES:

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck is secured to steel deck supports spaced maximum 6 ft. o.c. with 5/8" diameter puddle welds fastened at each flute. Panel laps stitched 24' o.c. with ¼" – 14 x 7/8" HWH screws.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type A: All layers of insulation 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.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
H-Shield, Duro-Guard II-H, AC-Foam II, Duro-Guard ISO II-A Minimum 1-1/2" thick	**N/A**	**N/A**

Note: Insulation shall be adhered to deck with Duro-Grip CR-20 Adhesive, Duro-Grip Weather-Tite One Step or Duro-Grip OlyBond 500 applied in continuous ¾' to 1" wide ribbons spaced 6" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Minimum 40 mil Duro-Last membrane, or minimum 50 mil Duro-Tuff membrane shall be fully adhered with Duro-Last WB II Adhesive applied at a rate of 150 ft^2/gal. Minimum 3" wide laps are sealed with a minimum 1.5" wide heat weld.
Or
Minimum 40 mil Duro-Last membrane, or minimum 50 mil Duro-Tuff membrane shall be fully adhered with Duro-Last SB IV Adhesive applied at a rate of 60 ft^2/gal. (apply 120 ft^2/gal to both the membrane and substrate). Minimum 3" wide laps are sealed with a minimum 1.5" wide heat weld.
Or
Minimum 50 mil Duro-Fleece membrane shall be fully adhered with Duro-Last WB II Adhesive applied at a rate of 100 to 120 ft^2/gal. Minimum 3" wide laps are sealed with a minimum 1.5" wide heat weld.
Or
Minimum 50 mil Duro-Fleece membrane shall be adhered with Duro-Fleece CR-20 Membrane Adhesive applied in a splatter pattern at a rate of 8 lbs/sq. Minimum 3" wide laps are sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

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

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type C(1): All layers of insulation simultaneously attached, membrane fully adhered.

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

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ACFoam II, ACFoam III, Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso II-H, Duro-Guard Iso III-H		
Minimum1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
SECUROCK Gypsum-Fiber Roof Board		
Minimum ¼" thick	**1 with 4**	**1:1.33 ft²**
DEXcell Cement Roof Board		
Minimum 7/16" thick	**1 with 4**	**1:1.33 ft²**

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

Membrane: Duro-Fleece fully adhered with Duro-Last WB II Adhesive applied at 100 ft²/gal. Laps are sealed with a minimum 1.5" wide heat weld.
Or
Duro-Fleece membrane fully adhered with Duro-Fleece CR-20 applied at 8 lbs/100-ft² in "splatter" pattern. Laps are sealed with a minimum 1.5" wide heat
Or
Duro-Tuff , or Duro-Last membrane fully adhered with Duro-Last SB IV Adhesive applied at 60ft²/gal total coverage. Laps are sealed with a minimum 1.5" wide heat weld.
Or
Duro-Tuff, or Duro-Last membrane fully adhered with Duro-Last WB II Adhesive applied at 140 ft²/gal. Laps are sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

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

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

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

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

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ACFoam II, Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso III-H		
Minimum1.5" thick	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
DensDeck Prime		
Minimum ¼" thick	**1 with 4**	**1:1.6 ft²**
DEXcell Cement Roof Board		
Minimum 7/16" thick	**1 with 4**	**1:1.6 ft²**

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

Membrane: Duro-Fleece membrane fully adhered with Duro-Last WB II Adhesive applied at 100 ft²/gal. Laps are sealed with a minimum 1.5" wide heat weld.
Or
Duro-Fleece membrane fully adhered with Duro-Fleece CR-20 applied at 8 lbs/100-ft² in "splatter" pattern. Laps are sealed with a minimum 1.5" wide heat
Or
Duro-Tuff, or Duro-Last membrane fully adhered with Duro-Last SB IV Adhesive applied at 60ft²/gal total coverage. Laps are sealed with a minimum 1.5" wide heat weld.
Or
Duro-Tuff, or Duro-Last membrane fully adhered with Duro-Last WB II Adhesive applied at 140 ft²/gal. Laps are sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga. Grade 33 steel deck is secured to steel deck supports spaced maximum 6 ft. o.c. with TRAXX/5 fasteners installed 6 in. on center. Side laps secured with Traxx/1 fasteners at 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type C(3): Layer 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.

Fire Barrier Minimum. ½" SECUROCK Gypsum-Fiber Roof Board or SECUROCK Glass-Mat Roof Board loose laid

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Duro-Guard Iso II-A, Duro-Guard III-A, ENRGY 3, ISO 95+ GL, ACFoam II, ACFoam III, Duro-Guard Iso II-H, Duro-Guard Iso III-H		
Minimum 1½" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
SECUROCK Gypsum-Fiber Roof Board		
Minimum ½" thick	**9 with 11**	**1:1.0 ft²**

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

Membrane: Duro-Tuff, or Duro-Last membrane fully adhered with Duro-Last WB II Adhesive applied at 100 ft^2/gal. Laps are sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 33 steel deck is secured to steel deck supports spaced maximum 6 ft. o.c. with Tek/5 fasteners installed 6 in. on center. Side laps secured with Tek/1 fasteners at 12 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type C(4): Layer 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.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso II-H, Duro-Guard Iso III-H		
Minimum 1.5" thick	**4 with 10**	**See below**
SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.5" thick	**4 with 10**	**See below**
DensDeck Prime		
Minimum 0.25" thick	**4 with 10**	**See below**

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

Duro-Bond Plate Note: When using Duro-Bond Plate 1302 over steel decks, ensure that the combined thickness of the new insulation is minimum 1". This thickness shall be measured from the top rib of the steel deck.

Membrane: Insulation Layer shall be through fastened to the steel deck with the fastener and plate listed above. The Duro-Last membrane (0.057" min), or Duro-Tuff (.080" min) membrane shall be induction welded to Duro-Bond Plates in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached at 6" o.c. in rows spaced a maximum of 48" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps are sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 33 steel deck is secured to steel deck supports spaced maximum 6 ft. o.c. with Tek/5 fasteners installed 6 in. on center. Side laps secured with Tek/1 fasteners at 12 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type C(5): Layer 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.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso II-H, Duro-Guard Iso III-H		
Minimum 1.5" thick	**4 with 10**	**See below**
SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.5" thick	**4 with 10**	**See below**
DensDeck Prime		
Minimum 0.25" thick	**4 with 10**	**See below**

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

Duro-Bond Plate Note: When using Duro-Bond Plate 1302 over steel decks, ensure that the combined thickness of the new insulation is minimum 1". This thickness shall be measured from the top rib of the steel deck.

Membrane: Insulation Layer shall be through fastened to the steel deck with the fastener and plate listed above. The Duro-Last membrane or Duro-Tuff membrane shall be induction welded to Duro-Bond Plates in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached at 6" o.c. in rows spaced a maximum of 72" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps are sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 33 steel deck is secured to steel deck supports spaced maximum 6 ft. o.c. with Tek/5 fasteners installed 6 in. on center. Side laps secured with Tek/1 fasteners at 12 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type C(6): Layer 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.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Duro-Guard Iso II-A, Duro-Guard Iso III-A, , Duro-Guard Iso II-H, Duro-Guard Iso III-H		
Minimum 1.5" thick	**4 with 10**	**See below**
SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.5" thick	**4 with 10**	**See below**
DensDeck Prime		
Minimum 0.25" thick	**4 with 10**	**See below**

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

Duro-Bond Plate Note: When using Duro-Bond Plate 1302 over steel decks, ensure that the combined thickness of the new insulation is minimum 1". This thickness shall be measured from the top rib of the steel deck.

Membrane: Insulation Layer shall be through fastened to the steel deck with the fastener and plate listed above. The Duro-Last membrane (0.057" min), Duro-Tuff (.080" min) membrane shall be induction welded to Duro-Bond Plates in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached at 6" o.c. in rows spaced a maximum of 96" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps are sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 33 steel deck is secured to steel deck supports spaced maximum 6 ft. o.c. with Tek/5 fasteners installed 6 in. on center. Side laps secured with Tek/1 fasteners at 12 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type C(7): Layer 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.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso II-H, Duro-Guard Iso III-H		
Minimum 1.5" thick	**4 with 10**	**See below**
SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.5" thick	**4 with 10**	**See below**
DensDeck Prime		
Minimum 0.25" thick	**4 with 10**	**See below**

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

Duro-Bond Plate Note: When using Duro-Bond Plate 1302 over steel decks, ensure that the combined thickness of the new insulation is minimum 1". This thickness shall be measured from the top rib of the steel deck.

Membrane: Insulation Layer shall be through fastened to the steel deck with the fastener and plate listed above. The Duro-Last membrane (0.057" min), Duro-Tuff (.080" min) membrane shall be induction welded to Duro-Bond Plates in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached at 6" o.c. in rows spaced a maximum of 60" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps are sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 33 steel deck is secured to steel deck supports spaced maximum 6 ft. o.c. with Tek/5 fasteners installed 6 in. on center. Side laps secured with Tek/1 fasteners at 12 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type C(8): Layer 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.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso II-H, Duro-Guard Iso III-H		
Minimum 1.5" thick	**4 with 10**	**See below**
SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.5" thick	**4 with 10**	**See below**
DensDeck Prime		
Minimum 0.25" thick	**4 with 10**	**See below**

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

Duro-Bond Plate Note: When using Duro-Bond Plate 1302 over steel decks, ensure that the combined thickness of the new insulation is minimum 1". This thickness shall be measured from the top rib of the steel deck.

Membrane: Insulation Layer shall be through fastened to the steel deck with the fastener and plate listed above. The Duro-Last membrane or Duro-Tuff membrane shall be induction welded to Duro-Bond Plates in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached at 6" o.c. in rows spaced a maximum of 48" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps are sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 33 steel deck is secured to steel deck supports spaced maximum 6 ft. o.c. with Tek/5 fasteners installed 6 in. on center. Side laps secured with Tek/1 fasteners at 12 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type C(9): Layer 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.

One or more layers of any of the following insulations:

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso II-H, Duro-Guard Iso III-H		
Minimum 1.5" thick	**4 with 10**	**See below**
SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.5" thick	**4 with 10**	**See below**
DensDeck Prime		
Minimum 0.25" thick	**4 with 10**	**See below**

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

Duro-Bond Plate Note: When using Duro-Bond Plate 1302 over steel decks, ensure that the combined thickness of the new insulation is minimum 1". This thickness shall be measured from the top rib of the steel deck.

Membrane: Insulation Layer shall be through fastened to the steel deck with the fastener and plate listed above. The Duro-Last membrane (0.057" min), Duro-Tuff (.080" min) membrane shall be induction welded to Duro-Bond Plates in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached at 12" o.c. in rows spaced a maximum of 48" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps are sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 18 ga., Type B, Grade 33 steel deck is secured to steel deck supports spaced maximum 6 ft. o.c. with Tek/5 fasteners installed 6 in. on center. Side laps secured with Tek/1 fasteners at 12 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type C(10): Layer 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.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso II-H, Duro-Guard Iso III-H		
Minimum 1.5" thick	**4 with 10**	**See below**
SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.5" thick	**4 with 10**	**See below**
DensDeck Prime		
Minimum 0.25" thick	**4 with 10**	**See below**

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

Duro-Bond Plate Note: When using Duro-Bond Plate 1302 over steel decks, ensure that the combined thickness of the new insulation is minimum 1". This thickness shall be measured from the top rib of the steel deck.

Membrane: Insulation Layer shall be through fastened to the steel deck with the fastener and plate listed above. The Duro-Last membrane (0.057" min), Duro-Tuff (.080" min) membrane shall be induction welded to Duro-Bond Plates in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached at 6" o.c. in rows spaced a maximum of 120" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps are sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck is secured to steel deck supports spaced maximum 6 ft. o.c. with 5/8" diameter puddle welds fastened at each flute. Panel laps stitched 24' o.c. with ¼" – 14 x 7/8" HWH screws.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted 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.

One or more layers of any of the following insulations.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso II-H, Duro-Guard Iso III-H		
Minimum 1" thick	**8 with 10**	**See below**
Duro-Guard Iso HD-A, Duro-Guard Iso HD-H		
Minimum 0.5" thick	**8 with 10**	**See below**
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**8 with 10**	**See below**

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

Duro-Bond Plate Note: When using Duro-Bond Plate 1302 over steel decks, ensure that the combined thickness of the new insulation is minimum 1". This thickness shall be measured from the top rib of the steel deck.

Membrane: Duro-Last or Duro-Tuff membrane shall be induction welded to Duro-Bond Plate 1302 in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached 24-inches o.c. in rows spaced 36-inches o.c. Two rows are installed in a non-staggered pattern and two rows are staggered 12-inches. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond welder. Laps are sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., type B, Grade 33 steel deck attached to steel supports spaced 6 ft. o.c. with 5/8" diameter puddle welds and washers at each flute. Panel laps stitched 24' o.c. with ¼" – 14 x 7/8" HWH screws.
Or
Minimum 22 ga., Type B, Grade 33 steel deck is secured to steel deck supports spaced maximum 6 ft. o.c. with #12-24 x 1-1/4" HWH self-drilling screws fastened at each flute. Panel laps stitched 24' o.c. with ¼" – 14 x 7/8" HWH screws.
This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted 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.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso II-H, Duro-Guard Iso III-H		
Minimum 1" thick	**8 with 10**	**See below**
Duro-Guard Iso HD-A, Duro-Guard Iso HD-H		
Minimum 0.5" thick	**8 with 10**	**See below**
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**8 with 10**	**See below**

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

Duro-Bond Plate Note: When using Duro-Bond Plate 1302 over steel decks, ensure that the combined thickness of the new insulation is minimum 1". This thickness shall be measured from the top rib of the steel deck.

Membrane: Duro-Last or Duro-Tuff membrane shall be induction welded to Duro-Bond Plate 1302 in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached 24-inches o.c. in rows spaced 24-inches o.c. Two rows are installed in a non-staggered pattern and two rows are staggered 12-inches. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond welder. Lap seams are sealed with a 1-inch wide factory weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck is secured to steel deck supports spaced maximum 6 ft. o.c. with #12-24 x 1-1/4" HWH self-drilling screws fastened at each flute. Panel laps stitched 24' o.c. with ¼" – 14 x 7/8" HWH screws.
Or
Minimum 22 ga., type B, Grade 33 steel deck attached to steel supports spaced 6 ft. o.c. with 5/8" diameter puddle welds and washers at each flute. Panel laps stitched 24' o.c. with ¼" – 14 x 7/8" HWH screws.
This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted 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.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso II-H, Duro-Guard Iso III-H		
Minimum 1" thick	**8 with 10**	**See below**
Duro-Guard Iso HD-A, Duro-Guard Iso HD-H		
Minimum 0.5" thick	**8 with 10**	**See below**
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**8 with 10**	**See below**

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

Duro-Bond Plate Note: When using Duro-Bond Plate 1302 over steel decks, ensure that the combined thickness of the new insulation is minimum 1". This thickness shall be measured from the top rib of the steel deck.

Membrane: Duro-Last, Duro-Tuff membrane shall be induction welded to Duro-Bond Plate 1302 in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached 24-inches o.c. in rows spaced 18-inches o.c. Two rows are installed in a non-staggered pattern and two rows are staggered 12-inches. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond welder. Lap seams are sealed with a 1-inch wide factory weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck is secured to steel deck supports spaced maximum 6 ft. o.c. with #12-24 x 1-1/4" HWH self-drilling screws fastened at each flute. Panel laps stitched 24' o.c. with ¼" – 14 x 7/8" HWH screws.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted 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.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso II-H, Duro-Guard Iso III-H		
Minimum 1" thick	**8 with 10**	**See below**
Duro-Guard Iso HD-A, Duro-Guard Iso HD-H		
Minimum 0.5" thick	**8 with 10**	**See below**
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**8 with 10**	**See below**

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

Duro-Bond Plate Note: When using Duro-Bond Plate 1302 over steel decks, ensure that the combined thickness of the new insulation is minimum 1". This thickness shall be measured from the top rib of the steel deck.

Membrane: Duro-Last (0.057" minimum)-, Duro Tuff (.080" min) membrane shall be induction welded to Duro-Bond Plate 1302 in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached 24-inches o.c. in rows spaced 36-inches o.c. Two rows are installed in a non-staggered pattern and two rows are staggered 12-inches. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond welder. Lap seams are sealed with a 1-inch wide factory weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck is secured to steel deck supports spaced maximum 6 ft. o.c. with Tek/5 fasteners installed 6 in. on center. Side laps secured with Tek/1 fasteners at 24" o.c.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type C(15): Layer 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.

One or more layers of any of the following insulations:

Base Insulation	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam II, Duro-Guard ISO II-A, AC Foam III, ENRGY 3, ISO 95+ GL, Multi-Max FA-3, Duro-Guard ISO III-A, Duro-Guard ISO III-A		
Minimum 1-½" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck Prime		
Minimum ¼" thick	**7 with 1**	**1:1.33 ft^2**
Duro-Guard ISO III-H, Duro-Guard ISO II-A, Duro-Guard ISO III-A		
Minimum 1-1/2" thick	**7 with 1**	**1:1.33 ft^2**
SECUROCK Gypsum Fiber Roof Board		
Minimum ½" thick	**7 with 1**	**1:1.33 ft^2**

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

Membrane: Duro-Last, Duro-Tuff, Duro-Fleece membrane fully adhered with Duro-Last WB II Adhesive applied at 100 ft^2/gal. to substrate only. Minimum 3" wide laps are sealed with a minimum 1.5" wide heat weld.
Or
Duro-Fleece shall be adhered with Duro-Fleece CR-20 Membrane Adhesive applied in a splatter pattern at a rate of 8 lbs/sq. Minimum 3" wide laps are sealed with a minimum 1.5" wide heat weld.
or
Duro-Last or Duro-Tuff, fully adhered with Duro-Last SB IV Adhesive applied at a rate of 60 ft^2/gal. to both the membrane and substrate (a combined rate of 120 ft^2/gal. to both membrane and substrate). Minimum 3" wide laps are sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 80 steel deck is secured to steel deck supports spaced maximum 6 ft. o.c. with Tek/5 fasteners installed 6-inches on center. Side laps secured with Tek/1 fasteners at 36- inches o.c.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type C(16): Layer 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.

One or more layers of the following insulations:

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ACFoam II, Duro-Guard ISO II-A Minimum 1-½" thick	**12 with 13**	**See below**

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

Isoweld Plate Note: When using Isoweld F1-P-6.8-PVC Plates over steel decks, ensure that the combined thickness of the new insulation is minimum 1". This thickness shall be measured from the top rib of the steel deck.

Membrane: Insulation Layer shall be through fastened to the steel deck with the fastener and plate listed above. The Duro-Last membrane shall be bonded to the Isoweld F1-P-6.8-PVC Plates in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached at 12-inches o.c. in rows spaced a maximum of 5 ft. o.c. Membrane is bonded to the Isoweld F1-P-6.8-PVC Plate with the SFS Isoweld 3000 stand-up tool. Laps are sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 40 steel deck is secured to steel deck supports spaced maximum 6 ft. o.c. with 5/8" diameter puddle welds (at each flute) 6-inches on center. Side laps secured with Tek/1 fasteners at 36- in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type C(17): Layer 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.

One or more layers of the following insulations:

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam II, Duro-Guard ISO II-A Minimum 1-½" thick	**12 with 13**	**1:4 ft^2**

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

Isoweld Plate Note: When using Isoweld F1-P-6.8-PVC Plates over steel decks, ensure that the combined thickness of the new insulation is minimum 1". This thickness shall be measured from the top rib of the steel deck.

Membrane: Insulation Layer shall be through fastened to the steel deck with the fastener and plate listed above. The Duro-Last membrane shall be bonded to the Isoweld F1-P-6.8-PVC Plates in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached at 4 ft^2 per fastener in a 2' x 2', staggered grid pattern. Membrane is bonded to the Isoweld F1-P-6.8-PVC Plate with the SFS Isoweld 3000 stand-up tool. Laps are sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 40 steel deck is secured to steel deck supports spaced maximum 6 ft. o.c. with 5/8" diameter puddle welds (at each flute) 6-inches on center. Side laps secured with Tek/1 fasteners at 36- inches o.c.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type C(18): Layer 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.

One or more layers of the following insulations:

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam II, Duro-Guard ISO II-A Minimum 1-½" thick	**12 with 13**	**1:3 ft^2**

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

Isoweld Plate Note: When using Isoweld F1-P-6.8-PVC Plates over steel decks, ensure that the combined thickness of the new insulation is minimum 1". This thickness shall be measured from the top rib of the steel deck.

Membrane: Insulation Layer shall be through fastened to the steel deck with the fastener and plate listed above. The Duro-Last membrane shall be bonded to the Isoweld F1-P-6.8-PVC Plates in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached at 4 ft^2 per fastener in a 1.5' x 2', staggered grid pattern. Membrane is bonded to the Isoweld F1-P-6.8-PVC Plate with the SFS Isoweld 3000 stand-up tool. Laps are sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 gage Grade 80 steel deck. Attached with ITW Buildex Traxx/5 fastener at a maximum spacing of 6" o.c. to minimum 0.25" thick steel supports having a maximum span of 6 ft. o.c. with deck side laps fastened at a maximum spacing of 24" o.c. with ITW Buildex Traxx/1.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type D(1): All layers of insulation are preliminarily attached to roof deck as specified below. Membrane is mechanically attached to deck through the insulation layers.

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

One or more layers of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Duro-Guard Iso II-A, Duro-Guard III-A, Duro-Guard Iso II-H, Duro-Guard Iso III-H, ENRGY 3, H-Shield, ISO 95+ GL, ACFoam II, ACFoam III Minimum 1½" thick	**N/A**	**N/A**
Cellofoam Type IX EPS Insulation, Insulfoam EPS Minimum ½" thick	**N/A**	**N/A**
Kingspan GreenGuard Insulation Board CM Minimum 1" thick	**N/A**	**N/A**

Note: Insulation layers above shall be mechanically attached with preliminary fastening as specified above. All Insulation panels shall also be mechanically fastened along with the roof membrane as specified below. See Roofing Application Standard RAS 117 for fastening details.

Vapor Barrier: (Optional) Any UL or FM approved vapor barrier.

Fire Barrier: (Optional) Atlas Roofing Corporation FR-10® Fire Retardant Slip Sheet, ¼"Dens Deck, or a second sheet of barrier board may be used over the insulation (see General Limitation #1).

Membrane with 60" tabs: Duro-Last® membrane shall be mechanically attached at its 3" tabs, spaced every 60" with Duro-Last #14 HD fasteners and Duro-Last Poly-plates® or Duro-Last Cleat Plates spaced 12" o.c. maximum, through the insulation and into the deck. Laps are sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 gage Grade 80 steel deck. Attached with ITW Buildex Traxx/5 fastener at a maximum spacing of 6" o.c. to minimum 0.25" thick steel supports having a maximum span of 6 ft. o.c. with deck side laps fastened at a maximum spacing of 24" o.c. with ITW Buildex Traxx/1.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type D(2): All layers of insulation are preliminarily attached to roof deck as specified below. Membrane is mechanically attached to deck through the insulation layers.

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

One or more layers of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Duro-Guard Iso II-A, Duro-Guard III-A, Duro-Guard Iso II-H, Duro-Guard Iso III-H, ENRGY 3, H-Shield, ISO 95+ GL, ACFoam II, ACFoam III		
Minimum 1½"	**N/A**	**N/A**
Cellofoam Type IX EPS Insulation, Insulfoam EPS		
Minimum ½" thick	**N/A**	**N/A**
Kingspan GreenGuard Insulation Board CM		
Minimum 1" thick	**N/A**	**N/A**

Note: Insulation layers above shall be mechanically attached with preliminary fastening as specified above. All Insulation panels shall also be mechanically fastened along with the roof membrane as specified below. See Roofing Application Standard RAS 117 for fastening details.

Vapor Barrier: (Optional) Any UL or FM approved vapor barrier.

Fire Barrier: (Optional) Atlas Roofing Corporation FR-10® Fire Retardant Slip Sheet ¼" DensDeck, Duro-Fold Underlayment Board or a second sheet of barrier board may be used over the insulation. (see General Limitation #1).

Membrane with 28" tabs: Duro-Last® membrane shall be mechanically attached at its 3" tabs, Spaced every 28" with Duro-Last #14 HD fasteners with Duro-Last Poly-plates® or Duro-Last Cleat Plates spaced at 18" o.c. maximum, through the insulation and into the deck. Laps are sealed with a minimum 1.5" wide heat weld.

Membrane with 120" tabs: Duro-Last® membrane shall be mechanically attached at its minimum 3" tabs, spaced every 120" with Duro-Last #14 HD fasteners with Duro-Last Poly-plates® or Duro-Last Cleat Plates spaced at 6" o.c. maximum, Through the insulation and into the deck. Laps are sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 gage Grade 80 steel deck. Attached with ITW Buildex Traxx/5 fastener at a maximum spacing of 6" o.c. to minimum 0.25" thick steel supports having a maximum span of 6 ft. o.c. with deck side laps fastened at a maximum spacing of 24" o.c. with ITW Buildex Traxx/1.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type D(3): All layers of insulation are preliminarily attached to roof deck as specified below. Membrane is mechanically attached to deck through the insulation layers.

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

One or more layers of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Duro-Guard Iso II-A, Duro-Guard III-A, Duro-Guard Iso II-H, Duro-Guard Iso III-H, ENRGY 3, H-Shield, ISO 95+ GL, ACFoam II, ACFoam III		
Minimum 1½" thick	**N/A**	**N/A**
Cellofoam Type IX EPS Insulation, Insulfoam EPS		
Minimum ½" thick	**N/A**	**N/A**
Kingspan GreenGuard Insulation Board CM		
Minimum 1" thick	**N/A**	**N/A**

Note: Insulation layers above shall be mechanically attached with preliminary fastening as specified above. All Insulation panels shall also be mechanically fastened along with the roof membrane as specified below. See Roofing Application Standard RAS 117 for fastening details.

Vapor Barrier: (Optional) Any UL or FM approved vapor barrier.

Fire Barrier: (Optional) Atlas Roofing Corporation FR-10® Fire Retardant Slip Sheet, ¼" DensDeck, or a second sheet of barrier board may be used over the insulation (see General Limitation #1).

Membrane with 28" tabs: Duro-Last® membrane shall be mechanically attached at its 3" tabs, spaced every 28" with Duro-Last fasteners with Duro-Last Poly-plates® or Duro-Last Cleat Plates spaced at 6" o.c. maximum, through the insulation and into the deck. Laps are sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel Deck, Insulated

Deck Description: Minimum 18 gauge, type B, Grade 80 steel deck attached to minimum 1/4" thick steel supports spaced maximum 5 ft. o.c. with Traxx/5 fasteners and 3/4" O.D. steel washers spaced 6" o.c. at the supports. Steel deck side laps secured with Traxx/1 screws maximum 24" o.c.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type D(4): Membrane fastened over preliminarily fastened insulation. All layers of insulation and membrane simultaneously attached.

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

One or more layers of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ENRGY-3, ISO 95+ GL, Multi-Max FA-3, ACFoam-II, ACFoam-III, Duro-Guard Iso II-A, Duro-Guard Iso III-A, Thermaroof Composite-3		
Minimum 1½" thick	**N/A**	**N/A**
Cellofoam Type IX EPS Insulation, Insulfoam EPS		
Minimum ½" thick	**N/A**	**N/A**
Kingspan GreenGuard Insulation Board CM		
Minimum 1" thick	**N/A**	**N/A**

Note: Insulation layer above shall be mechanically attached with preliminary fastening. All Insulation panels shall be mechanically fastened along with the roof membrane as specified below. See Roofing Application Standard RAS 117 for fastening details.

Membrane with 57" tabs: Duro-Last membrane shall be mechanically attached at its 6" wide tabs, spaced every 57" o.c. with Duro-Last #15 Extra Heavy Duty Drill Point fasteners with 2-3/8" Eyehook Accuseam Plates or Duro-Last Cleat Plates spaced 12" o.c. maximum, through the insulation and into the deck. Duro-Last Tab Sealer 4725 shall be applied over the tab membrane and to the overlying membrane underside at a rate of 30 ft^2/gal (two-sided application). Laps are sealed with a minimum 1.5" wide heat weld.
(Maximum Design Pressure -67.5 psf; See General Limitation #7)

Duro-Last membrane shall be mechanically attached at its 6" wide tabs, spaced every 57" o.c. with Duro-Last #15 Extra Heavy Duty Drill Point fasteners with 2-3/8" Eyehook Accuseam Plates or Duro-Last Cleat Plates spaced 6" o.c. maximum, through the insulation and into the deck. Duro-Last Tab Sealer 4725 shall be applied over the tab membrane and to the overlying membrane underside at a rate of 30 ft^2/gal (two-sided application). Laps are sealed with a minimum 1.5" wide heat weld.
(Maximum Design Pressure -135 psf; See General Limitation #7)

Membrane with 84" tabs:	Duro-Last membrane shall be mechanically attached at its 6" wide tabs, spaced every 84” o.c. with Duro-Last #15 Extra Heavy Duty Drill Point fasteners with 2-3/8” Eyehook Accuseam Plates or Duro-Last Cleat Plates spaced 6" o.c. maximum, through the insulation and into the deck. Duro-Last Tab Sealer 4725 shall be applied over the tab membrane and to the overlying membrane underside at a rate of 30 ft^2/gal (two-sided application). Laps are sealed with a minimum 1.5” wide heat weld. ***(Maximum Design Pressure -97.5 psf; See General Limitation #7)***
Membrane with 120" tabs: tabs:	Duro-Last membrane shall be mechanically attached at its 6" wide tabs, spaced every 120” o.c. with Duro-Last #15 Extra Heavy Duty Drill Point fasteners with 2-3/8” Eyehook Accuseam Plates or Duro-Last Cleat Plates spaced 6" o.c. maximum, through the insulation and into the deck. Duro-Last Tab Sealer 4725 shall be applied over the tab membrane and to the overlying membrane underside at a rate of 30 ft^2/gal (two-sided application). Laps are sealed with a minimum 1.5” wide heat weld. ***(Maximum Design Pressure -82.5 psf; See General Limitation #7)***
Maximum Design Pressure:	See fastening above

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel Deck, Insulated

Deck Description: Minimum 22 ga. steel deck meeting A653 SS Grade 80 or A1008 Grade 80 is secured to steel deck supports spaced maximum 5.5 ft. o.c. with TRAXX/5 fasteners installed 6 in. on center. Side laps secured with Traxx/1 fasteners at 24 in. o.c.
Or
Minimum 20 ga. deck meeting A653 SS Grade 80 or A1008 Grade 80 is secured to supports spaced maximum 6.0 ft. o.c. with TRAXX/5 fasteners installed 6 in. on center. Side laps secured with Traxx/1 fasteners at 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type D(5): Membrane fastened over preliminarily fastened insulation. All layers of insulation and base sheet simultaneously attached.

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

One or more layers of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Duro-Guard Iso II-A, Duro-Guard Iso II-H, Duro-Guard III-A, Duro-Guard Iso III-H, ENRGY 3, H-Shield, ISO 95+ GL, ACFoam II, ACFoam III		
Minimum 1½" thick	**1, 2, 3, 10**	**1:6.4 ft²**

Note: Insulation layers above shall be mechanically attached with preliminary fastening as specified above. All Insulation panels shall also be mechanically fastened along with the roof membrane as specified below. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Minimum 50-mil Duro-Tuff membrane shall be mechanically attached 12" o.c in rows spaced 116" o.c. with Duro-Last Cleat Plates and Duro-Last #15 Extra Heavy Duty Drill Point Fastener. Laps are sealed with minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel Deck, Insulated

Deck Description: Minimum 22 ga. steel deck meeting A653 SS Grade 80 or A1008 Grade 80 is secured to steel deck supports spaced maximum 5.5 ft. o.c. with TRAXX/5 fasteners installed 6 in. on center. Side laps secured with Traxx/1 fasteners at 24 in. o.c.
Or
Minimum 20 ga. deck meeting A653 SS Grade 80 or A1008 Grade 80 is secured to supports spaced maximum 6.0 ft. o.c. with TRAXX/5 fasteners installed 6 in. on center. Side laps secured with Traxx/1 fasteners at 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type D(6): Membrane fastened over preliminarily fastened insulation. All layers of insulation and base sheet simultaneously attached.

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

One or more layers of the following insulations:

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Duro-Guard Iso II-A, Duro-Guard Iso II-H, Duro-Guard III-A, Duro-Guard Iso III-H, ENRGY 3, H-Shield, ISO 95+ GL, ACFoam II, ACFoam III		
Minimum 1½" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
DensDeck, SECUROCK Gypsum-Fiber Roof Board, SECUROCK Glass-Mat Roof Board		
Minimum ¼" thick	**1, 2, 3, 10**	**1:6.4 ft²**

Note: Insulation layers above shall be mechanically attached with preliminary fastening as specified above. All Insulation panels shall also be mechanically fastened along with the roof membrane as specified below. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Minimum 50-mil Duro-Tuff membrane shall be mechanically attached 12" o.c.in rows spaced 116" o.c. with Duro-Last Cleat Plates and Duro-Last #15 Extra Heavy Duty Drill Point Fastener. Laps are sealed with minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel Deck, Insulated

Deck Description: Minimum 22 ga., Type B, Grade 80 steel deck is secured to steel deck supports spaced maximum 6 ft. o.c. with #12-24 HWH self-drilling screws fastened at each flute. No fasteners were installed in the side laps.
Or
Minimum 22 gage, type B, Grade 80 steel deck attached to steel supports spaced 6 ft o.c. with 5/8-inch puddle welds at each flute. No fasteners were installed in the side laps.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type D(7): Membrane fastened over preliminarily fastened insulation. All layers of insulation and membrane simultaneously attached.

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

One or more layers of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Duro-Guard Iso II-H, Duro-Guard Iso II-A Minimum 1" thick	**N/A**	**N/A**
SECUROCK Gypsum Fiber-Roof Board Minimum 1/4" thick	**N/A**	**N/A**
Cellofoam Type IX EPS Insulation, Insulfoam EPS Minimum 1/2" thick	**N/A**	**N/A**
Kingspan GreenGuard Insulation Board CM Minimum 1" thick	**N/A**	**N/A**

Note: Insulation layer above shall be mechanically attached with preliminary fastening. All Insulation panels shall be mechanically fastened along with the roof membrane as specified below. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Minimum 40 mil Duro-Last membrane shall be mechanically attached at its 6" wide tabs, spaced 120" o.c. with Duro-Last #15 Extra Heavy Duty Drill Point Fastener and Poly-Plates or Cleat-Plates spaced 6" o.c. maximum along the tab through the insulation and into the deck. Laps are sealed with a minimum 1" wide factory weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel Deck, Insulated

Deck Description: Minimum 22 gage, Type B, Grade 33 steel deck is secured to steel deck supports spaced maximum 6 ft. o.c. with #12-24 HWH self-drilling screws fastened at each flute. No fasteners were installed in the deck side laps.
Or
Minimum 22 gage, Type B, Grade 33 steel deck attached to steel supports spaced 6 ft o.c. with 5/8-inch puddle welds at each flute. No fasteners were installed in the deck side laps.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type D(8): Membrane fastened over preliminarily fastened insulation. All layers of insulation and membrane simultaneously attached.

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

One or more layers of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Duro-Guard ISO II-H, Duro-Guard Iso II-A Minimum 1" thick	**N/A**	**N/A**
SECUROCK Gypsum Fiber-Roof Board Minimum 1/4" thick	**N/A**	**N/A**
Cellofoam Type IX EPS Insulation, Insulfoam EPS Minimum 1/2" thick	**N/A**	**N/A**
Kingspan GreenGuard Insulation Board CM Minimum 1" thick	**N/A**	**N/A**

Note: Insulation layer above shall be mechanically attached with preliminary fastening. All Insulation panels shall be mechanically fastened along with the roof membrane as specified below. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Minimum 40 mil Duro-Last membrane shall be mechanically attached at its 3" wide tabs, spaced 60" o.c. with Duro-Last #15 Extra Heavy Duty Drill Point Fastener and Poly-Plates or Cleat Plates spaced 6" o.c. maximum along the tab through the insulation and into the deck. Laps are sealed with a minimum 1" wide factory weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel Deck, Insulated

Deck Description: Minimum 22 gage, type B, Grade 33 steel deck attached to steel supports spaced 6 ft o.c. with 5/8-inch puddle welds at each flute. Panel laps stitched 24' o.c. with ¼" – 14 x 7/8" HWH screws.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type D(9): Membrane fastened over preliminarily fastened insulation. All layers of insulation simultaneously attached.

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

One or more layers of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Duro-Guard EPS FGF, Duro-Guard ISO II-A Minimum 1" thick	**N/A**	**N/A**
Duro-Guard EPS, Duro-Guard ISO II-H, R-Tech Fan Fold, Duro-Guard ISO HD-A, Duro-Guard ISO HD-H Minimum 1/2 " thick	**N/A**	**N/A**
SECUROCK Gypsum Fiber Roof Board, DensDeck Prime, DEXcell FA Glass Mat Roof Board Minimum ¼" thick	**N/A**	**N/A**
Duro-Fold Underlayment Board Minimum 3/8" thick	**N/A**	**N/A**

Note: Insulation layers above shall be preliminarily attached with Duro-Last 3" insulation Plates and HD screws. Insulation panels shall also be mechanically fastened with the roof membrane as specified below. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Minimum 50-mil Duro-Tuff Membrane shall be mechanically attached 6" o.c. in rows spaced 54" o.c. with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last Poly Plates. Center of plate is installed 1-1/4" from tab edge.Minimum 6" wide laps are sealed with minimum 1.5" heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel Deck, Insulated

Deck Description: Minimum 22 gage, type B, Grade 33 steel deck attached to steel supports spaced 6 ft o.c. with #12-24 HWH self-drilling screws at each flute. Panel laps stitched 24' o.c. with ¼" – 14 x 7/8" HWH screws.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table.

System Type D(10): Membrane fastened over preliminarily fastened insulation. All layers of insulation simultaneously attached.

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

One or more layers of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Duro-Guard EPS FGF, Duro-Guard ISO II-A Minimum 1" thick	**N/A**	**N/A**
Duro-Guard EPS, Duro-Guard ISO II-H, R-Tech Fan Fold, Duro-Guard ISO HD-A, Duro-Guard ISO HD-H Minimum 1/2 " thick	**N/A**	**N/A**
SECUROCK Gypsum Fiber Roof Board, DensDeck Prime, DEXcell FA Glass Mat Roof Board Minimum ¼" thick	**N/A**	**N/A**
Duro-Fold Underlayment Board Minimum 3/8" thick	**N/A**	**N/A**

Note: Insulation layers above shall be preliminarily attached with Duro-Last 3" Insulation Plates and HD screws. Insulation panels shall also be mechanically fastened with the roof membrane as specified below. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Minimum 50-mil Duro-Tuff Membrane shall be mechanically attached 6" o.c. in rows spaced 54" o.c. with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last Poly Plates. Center of plate is installed 1-1/4" from tab edge. Minimum 6" wide laps are sealed with minimum 1.5" heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel Deck, Insulated

Deck Description: Minimum 22 gauge, type B, Grade 40 steel deck attached to steel supports spaced 6 ft o.c. with 5/8-inch puddle welds at each flute. Panel laps stitched 24' o.c. with ¼" – 14 x 7/8" HWH screws.
Or
Minimum 22 gage, type B, Grade 50 steel deck attached to steel supports spaced 6 ft o.c. with #12-24 HWH self-drilling screws at each flute. Panel laps stitched 24' o.c. with ¼" – 14 x 7/8" HWH screws.

This Tested Assembly has been analyzed for allowable deck stress. See evidence submitted table DLRI-086-02-02 page 27 and 33.

System Type D(11): Membrane fastened over preliminarily fastened insulation. All layers of insulation simultaneously attached.

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

One or more layers of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Duro-Guard EPS FGF, Duro-Guard ISO II-A Minimum 1" thick	**N/A**	**N/A**
Duro-Guard EPS, Duro-Guard ISO II-H, R-Tech Fan Fold, Duro-Guard ISO HD-A, Duro-Guard ISO HD-H Minimum 1/2 " thick	**N/A**	**N/A**
SECUROCK Gypsum Fiber Roof Board, DensDeck Prime, DEXcell FA Glass Mat Roof Board Minimum ¼" thick	**N/A**	**N/A**
Duro-Fold Underlayment Board Minimum 3/8" thick	**N/A**	**N/A**

Note: Insulation layers above shall be preliminarily attached with Duro-Last 3" insulation Plates and HD screws. Insulation panels shall also be mechanically fastened with the roof membrane as specified below. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Minimum 50-mil Duro-Tuff Membrane shall be mechanically attached 6" o.c. in rows spaced 114" o.c. with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last Poly Plates. Center of plate is installed 1-1/4" from tab edge. Minimum 6" wide laps are sealed with minimum 1.5" heat weld.

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

STEEL DECK SYSTEM LIMITATIONS:

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

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 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