



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

NOTICE OF ACCEPTANCE (NOA)

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

DURO-LAST Roofing, Inc.
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. 12-0529.06 and consists of pages 1 through 40.
The submitted documentation was reviewed by Jorge L. Acebo.



NOA No.: 13-0419.05
Expiration Date: 08/22/17
Approval Date: 02/20/14
Page 1 of 40

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Single Ply
Materials:	PVC
Deck Type:	Steel
Maximum Design Pressure:	-142.5 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Duro-Last Membrane	.037" thick, fabricated in sheets up to 3000 sq. ft.	ASTM D 4434	PVC polymer blend polyester reinforced roofing membrane.
Duro-Last Membrane	.045" thick, fabricated in sheets up to 2000 sq. ft.	ASTM D 4434	PVC polymer blend polyester reinforced roofing membrane.
Duro-Last Membrane	.057" thick, fabricated in sheets up to 1800 sq. ft.	ASTM D 4434	PVC polymer blend polyester reinforced roofing membrane.
Duro-Last Designer Series Membrane	.045" thick Various widths & lengths	ASTM D 4434	PVC polymer blend polyester reinforced roofing membrane: Rock-Ply & Shingle-Ply.
Duro-Fleece Plus Plus Membrane	.047" thick, fabricated in sheets up to 2000 sq. ft.	ASTM D 4434	PVC polymer blend polyester reinforced fleece backed roofing membrane.
Duro-Fleece Plus Plus Membrane	.056" thick, fabricated in sheets up to 1800 sq. ft.	ASTM D 4434	PVC polymer blend polyester reinforced fleece backed roofing membrane.
Duro-Fleece Membrane	.047" thick, .	ASTM D 4434	PVC polymer blend polyester reinforced fleece backed roofing membrane.
Duro-Fleece Membrane	.056" thick,	ASTM D 4434	PVC polymer blend polyester reinforced fleece backed roofing membrane.
Duro-Tuff Membrane	.045" thick Various widths x 100 ft. rolls	ASTM D 4434	PVC polymer blend polyester reinforced roofing membrane.
Duro-Tuff Membrane	.057" thick Various widths v 100 ft. rolls	ASTM D 4434	PVC polymer blend polyester reinforced roofing membrane.
Duro-Last Fascia Bar	1 3/4" x 10'; 4" x 10'	Proprietary	Extruded vinyl drip edge with holes punched 8" o.c.
Duro-Last Fascia Bar Cover	1 3/4" x 10'; 4" x 10'	Proprietary	Extruded decorative cover for Duro-Last Fascia Bar: white, tan or gray.
Duro-Last Fascia	2" & 4"	TAS 111	Kynar finish Galvalume, 24 ga., cover
Duro-Last Snap Coping	12"	TAS 111	Kynar finish Galvalume, 24 ga., coping
Duro-Last 2-Piece Metal "T-Edge"		TAS 111	Kynar finish Galvalume, 24 ga., with vinyl skirt.



<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Duro-Last 2-Piece Compression Edge		TAS 111	Kynar finish Galvalume, 24 ga.
Duro-Last Vinyl Coated Metal	4' x 10' .043" thick	G-90	G-90 galvanized steel, laminated with Duro-Last Vinyl Film.
Duro-Last Drip Edge	2" face x 10'; 4" face x 10';	Proprietary	Extruded vinyl drip edge with holes punched 8" o.c.
Duro-Last Two-Way Roof Vents		Proprietary	Injection molded two-way roof vents with a Duro-Last membrane skirt.
Duro-Last Gravel Stop	2" face x 10'; 4" face x 10';	Proprietary	Extruded vinyl gravel stop with holes punched 8" o.c.
Roof-Trak III Walk Pads	30" x 60" .125" thick	Proprietary	Extruded vinyl walk way pads manufactured from Duro-Last membrane.
Duro-Last WB II Adhesive	5 gal. pail	Proprietary	Polymeric waterborne membrane adhesive.
Duro-Last SB IV	5 gal. pail	Proprietary	Low VOC solvent-based membrane adhesive.
Duro-Fleece Membrane Adhesive	10 gal.	Proprietary	Two-component membrane adhesive.
Duro-Last Tab Sealer 4725		Proprietary	Solvent-based contact-bonding agent.
Duro-Last Accessories	Various	ASTM D 4434	Custom fabricated accessories for parapets and penetrations: Curb flashing, Inside & Outside Corner, Scuppers, Drain Boot, Parapet Flashing, Stack Flashing; all for use in the Duro-Last roofing systems.
Duro-Fleece CR-20 Adhesive		Proprietary	Dual component, low-rise polyurethane foam adhesive
Duro-Blue	4 mil x 20' x 360'; 4 mil x 20' x 100'	Proprietary	Separation slip sheet produced from coextruded polyethylene film
Duro-Weave	2.5 mil x 12' x 328'	Proprietary	Separation slip sheet produced from high density polyethylene tapes and coated on one side with low density polyethylene

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ACFoam II, ACFoam III, ACFoam IV, Tapered ACFoam IV	Polyisocyanurate foam insulation	Atlas Roofing Corp
ISO 95+ GL	Polyisocyanurate foam insulation	Firestone Building Products Company, LLC
EPS	Type IX Expanded polystyrene with a minimum density of 1.8 pcf	Generic
XPS	Type IV Extruded polystyrene with a minimum density of 1.6 pcf	Generic
Type X Gypsum	Gypsum board	Generic
SECUROCK Gypsum-Fiber Roof Board	Gypsum roof board	USG Corporation
SECUROCK Glass-Mat Roof Board	Gypsum roof board with fiberglass facer	USG Corporation
DensDeck, DensDeck Prime	Silicon treated gypsum	Georgia-Pacific Gypsum LLC
H-Shield	Polyisocyanurate foam insulation	Hunter Panels, LLC
ENRGY 3	Polyisocyanurate foam insulation	Johns Manville
Invinsa Roof Board	High density Polyisocyanurate board	Johns Manville
Multi-Max FA-3,	Polyisocyanurate foam insulation	Rmax Operating, LLC
Thermarroof Composite-3	Polyisocyanurate foam insulation laminated to perlite	Rmax Operating, LLC
Duro-Fold Underlayment Board	Extruded polystyrene with polypropylene facer	Duro-Last Roofing, Inc.
Duro-Guard Iso II-H & Tapered, Duro-Guard Iso III-H & Tapered,	Polyisocyanurate foam insulation	Duro-Last Roofing, Inc.
Duro-Guard Iso II-A & Tapered, Duro-Guard Iso III-A & Tapered, Duro-Guard Iso IV-A & Tapered,	Polyisocyanurate foam insulation	Duro-Last Roofing, Inc.



APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Duro-Last Duro-Coated Hex Head Screws	Roofing and insulation fasteners, Duro-Coated with #3 Phillips head.	Various Lengths	Duro-Last Roofing, Inc.
2.	Duro-Last 3” Metal Plates	Galvalume steel stress plates.	3” square	Duro-Last Roofing, Inc.
3.	Duro-Last Insulation Plates	Round plastic stress plates.	3” round	Duro-Last Roofing, Inc.
4.	Duro-Last Poly-plates	Round plastic stress plates.	2” round	Duro-Last Roofing, Inc.
5.	Duro-Last #15 Extra Heavy Duty Drill Point Fastener	Corrosion resistant, drill point with a #3 Phillips truss head	Various Lengths	Duro-Last Roofing, Inc.
6.	Eyehook Seam Plates	Stress plates	2-3/8”	OMG, Inc.
7.	Duro-Last Batten Bar	18 ga. Galvalume steel batten bar with pre-punched holes every 6”	1” wide	Duro-Last Roofing, Inc.
8.	Trufast EHD (#15) Fasteners	Corrosion resistant, drill point with a #3 Phillips truss head	Various Lengths	Altenloh, Brinck & Co. U.S., Inc.
9.	Duro-Last Cleat Plates	0.035” thick galvalume stress plate	2-3/8”	Duro-Last Roofing, Inc.
10.	Duro-Last #14 HD Fastener	Roofing and insulation fasteners	Various Lengths	Duro-Last Roofing, Inc.
11.	RhinoBond Insulation Plates	Primer coated plate used in heat welded applications	3” round	OMG, Inc.
12.	OMG 3” Galvalume Steel Plate	Galvalume coated steel plate	3” round	OMG, Inc.
13.	#12 Standard Roofgrip	Carbon steel fastener with #3 phillips head	Various Lengths	OMG, Inc.
14.	Duro-Bond Plate 1302	Round, coated galvalume plate (Gold and Black)	3” round	Duro-Last Roofing, Inc.
15.	OMG Heavy Duty	Carbon steel fastener with #3 phillips head		OMG, Inc.
16.	Trufast 3” Metal Insulation Plate	Round stress plate with reinforcing ribs	3” round	Altenloh, Brinck & Co. U.S., Inc.
17.	Trufast DP #12 Fasteners	Carbon steel screw with #3 phillips drive	#12 x 8” max. length	Altenloh, Brinck & Co. U.S., Inc.
18.	Trufast #12 Purlin Fastener	Carbon steel screw with #3 phillips drive	#12 x 8-3/4” max. length	Altenloh, Brinck & Co. U.S., Inc.



EVIDENCE SUBMITTED:

<u>Test Agency/Identifier</u>	<u>Name</u>	<u>Report</u>	<u>Date</u>
Factory Mutual Research Corporation	J.I. 3Y5A6.AM	Class 4470	03-10-95
	4D6A4.AM	Class 4470	08-09-99
	3005604	Class 4470	03-13-00
	3008342	Class 4470	10-19-00
	3026508	Class 4470	05-03-07
	3023458	Class 4470	07-18-06
	3033314	Class 4470	08-26-08
	3040346	Class 4470	09-28-11
	3040741	Class 4470	12-02-11
	3044466	Class 4470	11-07-12
Exterior Research & Design, LLC	#02733.01.05-1	FM 4470/TAS 114	01-21-05
	#02744.05.06	FM 4470/TAS 114	05-17-06
	#D6760.08.07	FM 4470/TAS 114	08-01-07
	02732.09.04	ASTM D4434	09-28-04
Trinity ERD	02750.02.08-R2	ASTM D4434	08-03-12
	D42370.07.12	ASTM D1084 / TAS 117	07-11-12
	D6760.08.07	FM 4470/TAS 114	08-01-07
	D35210.08.11-R1	ASTM D4434	09-17-12
	D35210.08.11-R3	ASTM D4434	3-29-13
	D40260.03.13-1	ASTM D4434	3-29-13
	D40280.03.13	ASTM D4434	3-13-13
	D43030.1.13-R1	TAS 114(J)/TAS 117(A)	10-02-13
	D44450.05.13-2	ASTM D4434	5-10-13
	C8500SC.11.07	TAs 117(B)	11-30-07
PRI Construction Materials Technologies, LLC	DLRI-021-02-01 Rev 4	ASTM D1761	10/28/13
		ASTM D1876	
		TAS 117(B)	
		FM 4474	
	DLRI-030-02-01	TAS 114(D)	04-01-13
Intertek Testing Services, NA Inc.	DLRI-045-02-01	TAS 114(D)	08-24-13
	3119586-001	TAS 111	07-10-07



APPROVED ASSEMBLIES:

- Membrane Type:** Single Ply, PVC
- Deck Type 2I:** Steel, Insulated
- Deck Description:** 18-22 ga. steel
- System Type B:** Base Layer of insulation mechanically attached, top insulation layer adhered with approved asphalt or adhesive, membrane fully adhered.

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

One or more layers of 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, ENRGY 3, ISO 95+ GL, H-Shield, Duro-Guard Iso II-H Minimum 1.5” thick	2 with 5	1:2 ft²
ACFoam IV, Duro-Guard Iso IV-A Minimum 2” thick	2 with 5	1:2 ft²

Note: Insulation layers 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).

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam II, Duro-Guard Iso II-A, ISO 95+ GL Minimum ¼” thick	N/A	N/A
DensDeck Minimum ¼” thick	N/A	N/A

Note: Top layer of insulation shall be adhered to substrate with Duro-Fleece Membrane Adhesive applied in continuous ¾ in. wide ribbons spaced 6 in. o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

- Membrane:** Duro-Fleece Plus 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
- (Only with ACFoam II, ACFoam IV, Duro-Guard Iso II-A, Duro-Guard Iso IV-A)
Duro-last membrane fully adhered with Duro-Last SB IV Adhesive applied at 100ft²/gal. Laps are sealed with a minimum 1.5” wide heat weld.

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



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel

System Type C(1): All layers of insulation mechanically 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.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam II, ACFoam III, Duro-Guard Iso II-A, Duro-Guard Iso III-A, ENRGY 3, ISO 95+ GL, H-Shield, Duro-Guard Iso II-H Minimum 1.5" thick	2 with 5	1:2 ft2
ACFoam IV, Duro-Guard Iso IV-A Minimum 2" thick	2 with 5	1:2 ft2
SECUROCK Gypsum-Fiber Roof Board, DensDeck Minimum ½" thick	2 with 5	1:2 ft2

Note: All Insulation layers 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-Fleece Plus membrane fully adhered with Duro-Last WB II Adhesive applied at 100 ft²/gallon. Laps are sealed with a minimum 1.5 in. heat weld.

Or

(Only with ACFoam II, ACFoam IV, Duro-Guard Iso II-A, Duro-Guard Iso IV-A)
Duro-Last membrane fully adhered with Duro-Last SB IV Adhesive applied at 100ft²/gallon. Laps are sealed with a minimum 1.5 in. heat weld.

**Maximum Design
Pressure:**

-45 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 2I: Steel, Insulated
Deck Description: 18-22 ga. steel
System Type C(2): Base layer of insulation loose laid. Top layer of insulation mechanically 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, ENRGY 3, ISO 95+ GL, H-Shield, Duro-Guard Iso II-H Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
SECUROCK Gypsum-Fiber Roof Board, DensDeck Minimum ¼" thick	2 with 5	1:2 ft²

Note: Top 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-Fleece Plus membrane fully adhered with Duro-Last WB II Adhesive applied at 100 ft²/gallon. Laps are sealed with a minimum 1.5 in. heat weld.
Maximum Design Pressure: -45 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 2I: Steel, Insulated
Deck Description: 18-22 ga. steel
System Type C(3): All layers of insulation simultaneously attached, membrane mechanically attached.

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

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam II, ACFoam III, ACFoam IV, Duro-Guard Iso IV-A, Duro-Guard Iso II-A, Duro-Guard Iso III-A, ENRGY 3, ISO 95+ GL, Multi-Max FA-3 Minimum 1.5" thick	5 with 11 or 14	1:6 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: Insulation Layer shall be through fastened to the steel deck with the fastener and plate and density listed above. The Duro-Last membrane shall be welded to the Plates as specified below.

Fastening: Membrane is welded to the Rhinobond Insulation Plates. Laps are sealed with a minimum 2" wide heat weld.

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



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel

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

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

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam II, ACFoam III, ACFoam IV, Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, ENRGY 3, ISO 95+ GL, Multi-Max FA-3 Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Invinsa Roof Board Minimum 1/4" thick	2 with 1	1:2 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-Last membrane fully adhered with Duro-Last SB IV adhesive applied at 60 ft²/gal. Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design Pressure: -45 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.

System Type C(5): 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.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
ACFoam II, ACFoam III, Duro-Guard Iso II-A, Duro-Guard Iso III-A, ENRGY 3, ISO 95+ GL, Multi-Max FA-3 Minimum 1.5" thick	2 with 10	1:1.33 ft ²
ACFoam IV, Duro-Guard Iso IV-A Minimum 2" thick	2 with 10	1:1.33 ft ²

Note: Top 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-Fleece Plus membrane fully adhered with Duro-Last WB II Adhesive applied at 100 ft²/gallon. Laps are sealed with a minimum 1.5 in. heat weld.

Or

(Only with ACFoam II, ACFoam IV, Duro-Guard Iso II-A, Duro-Guard Iso IV-A)
Duro-Last membrane fully adhered with Duro-Last SB IV Adhesive applied at 100 ft²/gal. Laps are sealed with 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.
System Type C(6): 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, ACFoam IV, Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, ENRGY 3, ISO 95+ GL, Multi-Max FA-3 Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
SECUROCK Gypsum-Fiber Roof Board Minimum 1/4" thick	2 with 10	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-Last membrane fully adhered with Duro-Last SB IV Adhesive applied at 60 ft²/gal. Laps are sealed with a minimum 1.5" wide heat weld.
 Or
 Duro-Fleece Plus membrane fully adhered with Duro-Last WB II Adhesive applied at 60 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.
System Type C(7): 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, ACFoam IV, Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, ENRGY 3, ISO 95+ GL, Multi-Max FA-3 Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck Prime Minimum 1/4" thick	2 with 5	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-Last membrane fully adhered with Duro-Last SB IV adhesive applied at 60 ft²/gal. Laps are sealed with a minimum 1.5" wide heat weld.
 Or
 Duro-Fleece or Duro-Fleece Plus membrane splatter adhered with Duro-Fleece CR20 Adhesive at rate of 8 lbs./100 ft². 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: 18-22 ga. steel
System Type C(8): 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.

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, ENRGY 3, ISO 95+ GL, Multi-Max FA-3 Minimum 1.5" thick	N/A	N/A
ACFoam IV, Duro-Guard Iso IV-A Minimum 2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck Prime Minimum 1/4" thick	2 with 10	1:1.33 ft²

Note: Top 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 membrane (min, 0.45") fully adhered with Duro-Last WB II Adhesive applied at 100 ft²/gallon. Laps are sealed with a minimum 1.5 in. heat weld.

Or

Duro-Fleece or Duro-Fleece Plus membrane splatter adhered with Duro-Fleece CR20 Adhesive at rate of 8 lbs./100 ft². 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.

System Type C(9): 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.

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam IV, Duro-Guard Iso IV-A Minimum 2" thick	2 with 5	1:2 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-Last membrane fully adhered with Duro-Last SB IV Adhesive applied at 60 ft²/gal. 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: Min. 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.

System Type C(10): 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 Minimum 1½” thick	N/A	N/A
Duro-Guard Iso IV-A, ACFoam IV Minimum 2” thick	N/A	N/A

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
SECUROCK Gypsum-Fiber Roof Board, SECUROCK Glass-Mat Roof Board Minimum ½” thick	16 with 17	1:6.4 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 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.

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



Membrane Type: Single Ply, PVC
Deck Type 2I: Steel, Insulated
Deck Description: Min. 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.
System Type C(11): 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 Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved EPS or Approved XPS Minimum 1/2" thick	N/A	N/A
Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Duro-Guard Iso II-A, Duro-Guard Iso II-H Minimum 1.5" thick	5 with 14	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).

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) 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: Min. 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.
System Type C(12): 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 Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved XPS or Approved EPS Minimum 1/2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Duro-Guard Iso II-A, Duro-Guard Iso II-H Minimum 1.5" thick	5 with 14	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).

Membrane: Insulation Layer shall be through fastened to the steel deck with the fastener and plate listed above. The Duro-Last 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: Min. 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.
System Type C(13): 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 Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved XPS or Approved EPS Minimum 1/2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Duro-Guard Iso II-A, Duro-Guard Iso II-H Minimum 1.5" thick	5 with 14	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).

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) 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: Min. 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.
System Type C(14): 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 Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved XPS or Approved EPS Minimum 1/2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Duro-Guard Iso II-A, Duro-Guard Iso II-H Minimum 1.5" thick	5 with 14	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).

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) 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: Min. 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.
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 Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved XPS or Approved EPS Minimum 1/2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Duro-Guard Iso II-A, Duro-Guard Iso II-H Minimum 1.5" thick	5 with 14	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).

Membrane: Insulation Layer shall be through fastened to the steel deck with the fastener and plate listed above. The Duro-Last 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: Min. 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.
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 any of the following insulations:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved XPS or Approved EPS Minimum 1/2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Duro-Guard Iso II-A, Duro-Guard Iso II-H Minimum 1.5" thick	5 with 14	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).

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) 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: Min. 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.
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 any of the following insulations:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved XPS or Approved EPS Minimum 1/2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Duro-Guard Iso II-A, Duro-Guard Iso II-H Minimum 1.5" thick	5 with 14	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).

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) 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: 18-22 ga. steel

System Type C(18): 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 (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved XPS and/or EPS Minimum 1/2" thick	N/A	N/A
Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam II, Duro-Guard Iso II-A Minimum 1.5" thick	2 with 1	1:2 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-Last membrane fully adhered with Duro-Last SB IV adhesive applied at 60 ft²/gal. Laps are sealed with a minimum 1.5" wide heat weld.

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



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18 to 22 gage Approved ASTM designation A611 Grade E or ASTM designation A446 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.

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:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved XPS or Approved EPS Minimum ½" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
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, Duro-Guard Iso IV-A, ACFoam IV 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.

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

Fire Barrier: (Optional) Atlas Roofing Corporation FR-10[®], FR-50[®], ¼" Dens Deck, ½" thick UL Classification Type X Gypsum with a moisture resistant facer and core 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: 18 to 22 gage Approved ASTM designation A611 Grade E or ASTM designation A446 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.
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:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved XPS or Approved EPS Minimum ½" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
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, Duro-Guard Iso IV-A, ACFoam IV Minimum 1½"	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.

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

Fire Barrier: (Optional) Atlas Roofing Corporation FR-10[®], FR-50[®], ¼" DensDeck, ½" thick UL Classification Type X Gypsum with a moisture resistant facer and core, 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 60" tabs: Duro-Last[®] membrane shall be mechanically attached at its 3" tabs, spaced every 60" 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.

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: 18 to 22 gage , 1.5” deep steel roof deck meeting ASTM designation A611 Grade E or ASTM designation A446 Grade E. Attached with ITW Buildex Traxx/4 or 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 30" o.c. with ITW Buildex Traxx/1.

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:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved XPS or Approved EPS Minimum ½” thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
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, Duro-Guard Iso IV-A, ACFoam IV 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.

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

Fire Barrier: (Optional) Atlas Roofing Corporation FR-10[®], FR-50[®], ¼" DensDeck, ½” thick UL Classification Type X Gypsum with a moisture resistant facer and core or a second sheet of barrier board may be used over the insulation (see General Limitation #1).

Membrane with 27" tabs: Duro-Last[®] membrane shall be inverted with the factory seam tabs on the top surface. The membrane is mechanically attached through the membrane adjacent to the tabs with Duro-Last #14 fasteners with Duro-Last Poly-plates[®] or Duro-Last Cleat Plates spaced at 12" o.c. maximum, through the insulation and into the deck . The tabs shall cover the fasteners and plates and be field welded a minimum 1.5” wide.

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



- Membrane Type:** Single Ply, PVC
- Deck Type 2I:** Steel, Insulated
- Deck Description:** 18 to 22 gage approved steel roof deck meeting ASTM designation A611 Grade E or ASTM designation A446 Grade E. Attached with ITW Buildex Traxx/4 or 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.
- System Type D(4):** 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:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved XPS or Approved EPS Minimum ½" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
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, Duro-Guard Iso IV-A, ACFoam IV 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.

- Vapor Barrier:** (Optional) Any UL or FM approved vapor barrier.
- Fire Barrier:** (Optional) Atlas Roofing Corporation FR-10[®], FR-50[®], ¼" DensDeck, ½" thick UL Classification Type X Gypsum with a moisture resistant facer and core 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 to 22 gage, type B, Grade 80 steel deck attached to steel supports spaced 6 ft. o.c. with puddle welds and washers spaced 6" o.c. at each flute. Deck side laps stitched 24' o.c. with Teks 1 fasteners.
- System Type D(5):** 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
ACFoam II, ACFoam III, Duro-Guard Iso II-A, Duro-Guard Iso III-A, ENRGY 3, H-Shield, Duro-Guard Iso II-H, Any Approved XPS and/or EPS Minimum 1½" 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 Fastener with Duro-Last 3-inch Metal 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 60 ft²/gal. (two-sided application). Laps are sealed with a minimum 1.5" wide heat weld.
(Maximum Design Pressure -52.5 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 Fastener with Duro-Last 3-inch Metal 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 60 ft²/gal (two-sided application). Laps are sealed with a minimum 1.5" wide heat weld.
(Maximum Design Pressure -105 psf; See General Limitation #7)

Membrane with 84" tabs: Duro-Last membrane shall be mechanically attached at its 3" wide tabs, spaced every 84" o.c. with Duro-Last #14 HD Fastener with Duro-Last Poly-plates or Duro-Last Cleat Plates spaced 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 -45 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 Fastener with Duro-Last 3"-inch Metal 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 60 ft²/gal. (two-sided application). Laps are sealed with a minimum 1.5" wide heat weld.
(Maximum Design Pressure -52.5 psf; See General Limitation #7)

Duro-Last membrane shall be mechanically attached at its 3" wide tabs, spaced every 84" o.c. with Duro-Last #15 Extra Heavy Duty Drill Point Fastener with 2-3/8" Eyehook Seam Plates or Duro-Last Cleat Plates spaced 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 -60 psf; See General Limitation #7)

Membrane with 120" 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 Fastener with Duro-Last 3-inch Metal 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 60 ft²/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 18 to 22 gage, type B, ASTM A1008 SS Grade 80 or A653 SS Grade 80 steel deck attached to minimum 1/4" thick steel supports spaced 6 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 24" o.c.
- System Type D(6):** 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, AC Foam-II, AC Foam-III, Duro-Guard Iso II-A, Duro-Guard Iso III-A, Thermaroom Composite-3 Minimum 1½" 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 Seam 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 ft²/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 Seam 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 ft²/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 Seam 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 ft²/gal (two-sided application). Laps are sealed with a minimum 1.5" wide heat weld.

(Maximum Design Pressure -52.5 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 Seam 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 ft²/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: 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 Seam 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 ft²/gal (two-sided application). Laps are sealed with a minimum 1.5" wide heat weld.
(Maximum Design Pressure -45psf; See General Limitation #7)

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 Seam 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 ft²/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: Min. 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. or min.18 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.

System Type D(7): 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 (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved XPS or Approved EPS Minimum 1/2" thick	N/A	N/A
Top 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 1 1/2" thick	1, 2, 3, 10	1:6.4 ft²
Duro-Guard Iso IV-A, ACFoam IV Minimum 2" 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: Min. 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 min. 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: Min. 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. or min. 18 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.

System Type D(8): 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, H, ENRGY 3, H-Shield, ISO 95+ GL, ACFoam II, ACFoam III Minimum 1½” thick	N/A	N/A
Duro-Guard Iso IV-A, ACFoam IV Minimum 2” 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: Min. 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 min. 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: Min. 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.

System Type D(9): 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 (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved XPS or Approved EPS Minimum 1/2" thick	N/A	N/A
Top 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, AC Foam II, AC Foam III Minimum 1 1/2" thick	1, 2, 3, 10	1:6.4 ft²
Duro-Guard Iso IV-A, AC Foam IV Minimum 2" 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: Min. 50-mil Duro-Tuff membrane shall be mechanically attached 12" o.c. in rows spaced 56" o.c with Duro-Last Cleat Plates and Duro-Last #15 Extra Heavy Duty Drill Point Fastener. Laps are sealed with min. 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 18 to 22 gage, type B, Grade 80 steel deck attached to steel supports spaced 6 ft. o.c. with Tek 5 fasteners spaced 6" o.c. at each flute. Deck side laps stitched 24" o.c. with Tek 1 fasteners.

System Type D(10): 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
ACFoam II, ACFoam III, Duro-Guard Iso II-A, Duro-Guard Iso III-A, ENRGY 3, H-Shield, Duro-Guard Iso II-H, Any Approved XPS and/or EPS Minimum 1½" 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 25" tabs: Duro-Last membrane shall be mechanically attached at its 6" wide tabs, spaced every 25" o.c. with Duro-Last #15 Extra Heavy Duty Drill Point Fastener with 2-3/8" Eyehook Seam 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 60 ft²/gal. (two-sided application). Laps are sealed with a minimum 1.5" wide heat weld.

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



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel Deck, Insulated

Deck Description: Min. 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.

System Type D(11): 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 (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved XPS or Approved EPS Minimum 1/2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Duro-Guard Iso II-A, Duro-Guard Iso II-H Minimum 1 1/2" 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.

Membrane with 60" tabs: Duro-Last[®] membrane shall be mechanically attached at its 3" tabs, spaced every 60" with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners with Duro-Last Poly-plates[®] or Duro-Last Cleat Plates spaced at 9" 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 Deck, Insulated

Deck Description: Minimum 22 gage, type B, Grade 80 steel deck is secured to steel deck supports spaced maximum 5 ft. o.c. with Tek/5 fasteners installed 6 in. on center. Side laps secured with Tek/1 fasteners at 24 in. o.c.

System Type D(12): 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 (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved XPS or Approved EPS Minimum 1/2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Duro-Guard Iso II-A, Duro-Guard IsoII-H Minimum 1 1/2" thick	3, 4, 5, 8	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: Duro-Last membrane shall be mechanically attached at its 3" wide tabs, spaced every 60" o.c. with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners with Duro-Last Batten Bar 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 60 ft²/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)



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 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



NOA No.: 13-0419.05
Expiration Date: 08/22/17
Approval Date: 02/20/14
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