

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

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

Miami, Florida 33175-2474 T (786)315-2590 F (786) 315-2599

www.miamidade.gov/economy

11805 SW 26 Street, Room 208

IB Roof Systems 8181 Jetstar Drive, Suite 150 Irving, TX 75063

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: IB PVC Single Ply Roof Systems over Recover Decks.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city and state of manufacturing facility, 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. 15-0928.14 and consists of pages 1 through 30. The submitted documentation was reviewed by Jorge L. Acebo



And W

NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 1 of 30

ROOFING SYSTEM APPROVAL

Category: Roofing

Sub-Category: Single Ply Roofing

Material: PVC
Deck Type: Recover

Maximum Design Pressure: See Specific Assemblies

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

		Test	Product
Product	Dimensions	Specification	Description
IB PVC Single Ply	50, 60, 80 mil thickness	ASTM D4434	Polyester reinforced PVC membrane.
IB PVC Single Ply Fleeceback	50, 60, 80 mil thickness	ASTM D4434	Polyester reinforced PVC membrane with a non-woven polyester fleeceback.
IB PVC-GR 60	60 mil	ASTM D4434	Fiberglass reinforced PVC membrane.
IB Water Borne Adhesive	3 gal.	Proprietary	Adhesive for bonding IB membranes to wood, concrete and glass faced polyisocyanurate insulations.
IB Vertibond PVC Bonding Adhesive	5 gal.	Proprietary	Adhesive for bonding IB membranes to metal, wood, concrete and certain insulation boards.
IB Rapid Set Insulation Adhesive	Various	Proprietary	Elastomeric, one-step, all-purpose, foamable adhesive.
Sopravap'r	45" x 133'	Various	Self-adhering air/vapor barrier membrane.
Elastocol Stick	Various	ASTM D41	Asphalt primer.
Elastocol Stick Zero	Various	ASTM D41	Asphalt primer.

APPROVED INSULATIONS: TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
IB EnergyBoard II, IB EnergyBoard III	Polyisocyanurate Insulation	IB Roof Systems
ACFoam-III, ACFoam-III	Polyisocyanurate Insulation	Atlas Roofing Corp.
ACFoam-HD Coverboard	Polyisocyanurate Insulation	Atlas Roofing Corp.
ENRGY 3	Polyisocyanurate Insulation	Johns Manville
Multi-Max FA-3	Polyisocyanurate Insulation	Rmax Operating, LLC
H-Shield, H-Shield CG	Polyisocyanurate insulation	Hunter Panels, LLC
ISO 95+ GL	Polyisocyanurate foam insulation	Firestone Building Products Company, LLC



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 2 of 30

APPROVED INSULATIONS: TABLE 2

Product Name	Product Description	Manufacturer
		(With Current NOA)
Insulfoam EPS	Closed-cell, Type IX (min 1.8	Insulfoam, a Division of
	pcf) expanded polystyrene.	Carlisle Const. Materials
Thermapink 25	Type IV Extruded polystyrene	Owens Corning Roofing and
	with a minimum density of 25 psi	Asphalt LLC
DensDeck, DensDeck Prime	Gypsum Insulation	Georgia Pacific Gypsum LLC
SECUROCK Gypsum-Fiber Roof Board	Gypsum insulation	US Gypsum

APPROVED FASTENERS / ADHESIVES:

TABLE 3

Fastener	Product	Product	D'	Manufacturer
Number	Name	Description	Dimensions	(With Current NOA)
1.	Dekfast 12, Dekfast 14, Dekfast 15 HS	Insulation and membrane fastener	Various	SFS Intec, Inc.
2.	Dekfast IF-2-SB	Galvalume stress plate.	2" round	SFS Intec, Inc.
3.	Dekfast Galvalume Steel 3" Round	Galvalume stress plate	3" round	SFS Intec, Inc.
4.	#12 Standard Roofgrip, #14 Roofgrip, #15 Roofgrip	Insulation and membrane fastener	Various	OMG, Inc.
5.	OMG XHD	High thread fastener for use in wood, steel and concrete decks	Various	OMG, Inc.
6.	OMG 2" Barbed Plate	2" round barbed membrane plate	2" round	OMG, Inc.
7.	OMG 3" Galvalume Steel Plate	Galvalume steel plate	3" round	OMG, Inc.
8.	IB #12 Standard Roofing Fastener	Insulation and membrane fastener	Various	IB Roof Systems
9.	IB #14 Heavy Duty Roofing	#14 membrane fastener	Various	IB Roof Systems
10.	IB #15 XHD Roofing Fastener	Insulation and membrane fastener	Various	IB Roof Systems
11.	IB Magnum Fastener	Insulation and membrane fastener	Various	IB Roof Systems
12.	IB 3" Galvalume Insulation Plate	Galvalume steel plate	3" round	IB Roof Systems
13.	IB 3" Insulation Plate	Galvalume stress plate	3" round	SFS Intec, Inc.
14.		2" round barbed membrane plate	2" round	IB Roof Systems
15.	IB #15 XHD Roofing Fasteners	High thread fastener for use in wood, steel and concrete decks	Various	IB Roof Systems



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 3 of 30

APPROVED FASTENERS / ADHESIVES:

TABLE 3

I ABLE 3				
Fastener	Product	Product		Manufacturer
Number	Name	Description	Dimensions	(With Current NOA)
16.	IB 2-3/8" Barbed Seam Plate	Insulation steel seam plate	2-3/8" round	IB Roof Systems
17.	IB CD-10 Roofing Fastener	Structural concrete fastener	Various	IB Roof Systems
18.	CD-10	Structural concrete fastener	Various	OMG, Inc.
19.	Dekfast DekSpike	For insulation and membrane attachment on structural concrete roof deck	Various	SFS Intec, Inc.
20.	#14 Roofgrip Fastener	#14 carbon steel fastener with CR-10 coating.	Various	OMG, Inc.
21.	OMG 2-3/8" Barbed XHD Plate	Insulation steel seam plate	2-3/8" round	OMG, Inc.
22.		Galvalume coated steel plate	3" round	OMG, Inc.
23.	IB Dekspike Roofing Fastener	For insulation and membrane attachment on structural concrete roof deck	Various	IB Roof Systems
24.	IB SD #12 Insulation Fastener	Insulation and membrane fastener	Various	IB Roof Systems
25.		Insulation and membrane fastener	Various	IB Roof Systems
26.	IB XHD #15 Roofing Fastener	Insulation and membrane fastener	Various	IB Roof Systems
27.	IB 3" Isoweld Plate	Round, coated galvalume plate (Silver and Gold) used for PVC membranes	3" round	IB Roof Systems
28.	Isoweld F1-P-6.8- PVC Plate	Round, coated galvalume plate (Silver and Gold) used for PVC membranes	3" round	SFS Intec, Inc.
29.	Millennium One Step Foamable Adhesive	Polyurethane two component high rise insulation adhesive	1.5 liters	Adco Products, Inc. d.b.a. Royal Adhesives & Sealants, Inc.
30.	ICP Adhesive CR-20	Polyurethane two component low rise insulation adhesive	Two kits (A = 40lb and B = 35lb cylinders)	ICP Adhesives & Sealants, Inc.
31.	Pliodeck Insulation Adhesive	Polyurethane one component low VOC adhesive system	, , , , , , , , , , , , , , , , , , ,	Ashland, Inc.
32.	OMG OlyBond 500 Adhesive	•	10 gal. bag-in-box set and 1.5 liters SpotShot cartridge	OMG, Inc.



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 4 of 30

EVIDENCE SUBMITTED:

Test Agency/Identifier	<u>Name</u>	Report	Date
Factory Mutual Research Corp.	2D5A9.AM	FM 4450	06/22/99
	3009502	FM 4470	12/21/00
	3012321	FM 4470	07/29/02
	3015444	FM 4450	07/11/03
	3014692	FM 4470	08/05/03
	3014751	FM 4450	08/27/03
	3029864	FM 4470	02/18/08
Underwriters Laboratories Inc.	02NK18635	CGSB-37.54-95	11/12/03
Exterior Research & Design, LLC	03903.05.06-2	TAS 114-J	05/10/06
2 v e. 1.000m v 00 2 00.g., 220	03900.05.05-R1	TAS 114-D	03/23/10
RADCO	RAD-5757	ASTM C578	12/14/15
Trinity ERD	02762.03.05-R1	TAS 114-D/TAS 114-J	12/10/07
•	I11110.02.09	TAS 114-J	02/05/09
	03903.05.06-2-R1	TAS 114-J	07/13/09
	I31580.10.10	ASTM D4434	10/18/10
	I33030.03.11	FM 4474/TAS 114	03/11/11
	02642.01.05-1-R2	TAS 114-J	06/07/11
	SC5160.01.15-R1	FM 4474/TAS 114	02/03/15
	SFS-SC10010.02.16	FM 4474/TAS 114	02/29/16

DECK STRESS ANALYSIS CALCULATIONS/REPORTS

Engineer/Agency	Identifier	Assemblies	Date
Robert Nieminen, P.E.	Signed/Sealed Calculations	B(4), C(3), C(4), C(5), C(6), C(7)	08/25/16
FM Approval Deck Limitations	N/A	D(2)	01/01/13



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 5 of 30

APPROVED ASSEMBLIES

Membrane Type: Single Ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type A(1): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane

fully adhered

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

One or more layers of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
ACFoam-II, IB EnergyBoard II, Multi-Max FA-3	` ,	•
Minimum 1.5" thick	N/A	N/A
DensDeck, SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	N/A	N/A
Top Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft ²
DensDeck, SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck or subsequent layers of insulation in $^{1}/_{2}$ " to $^{3}/_{4}$ " wide beads 12" o.c. of Millennium One Step Foamable Adhesive or IB Rapid Set Insulation Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: IB PVC Single Ply roof cover adhered to the insulation with IB Water Borne

Adhesive at 1 gal/125 - 175 ft2 (substrate only). Side laps are min. 3-inch

wide sealed with min. $1-\frac{1}{2}$ " heat weld.

Or

IB PVC-GR 60 or IB PVC Single Ply roof cover adhered to the insulation with IB Vertibond PVC Bonding Adhesive at 1 gal/50 - 70 ft2 (contact both sides).

Side laps are min. 3-inch wide sealed with min. 1-1/2" heat weld.

Or

IB PVC Single Ply Fleeceback roof cover adhered to the insulation with IB Water Borne Adhesive at 1 gal/100 - 160 ft2 (substrate only) or IB Vertibond PVC Bonding Adhesive at 1 gal/45 - 60 ft2 (contact both sides). Side laps are

min. 3-inch wide sealed with min. 1-1/2" heat weld.

Maximum Design

Pressure: -157.5 psf. (See General Limitation #9.)



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 6 of 30

Single Ply, PVC **Membrane Type:**

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type A(2): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane

fully adhered

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

One or more layers of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
ACFoam-II, IB EnergyBoard II, Multi-Max FA-3	,	•
Minimum 1.5" thick	N/A	N/A
DensDeck, SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners	Fastener
·	(Table 3)	Density/ft ²
DensDeck, SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.5" thick	N/A	N/A

Note: All insulation shall be adhered to the deck or subsequent layers of insulation in 3" to 3.5" wide beads 12" o.c. of ICP Adhesives CR-20. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: IB PVC Single Ply roof cover adhered to the insulation with IB Water Borne

Adhesive at 1 gal/125 - 175 ft2 (substrate only). Side laps are min. 3-inch

wide sealed with min. 1-1/2" heat weld.

IB PVC-GR 60 or IB PVC Single Ply roof cover adhered to the insulation with IB Vertibond PVC Bonding Adhesive at 1 gal/50 - 70 ft2 (contact both sides).

Side laps are min. 3-inch wide sealed with min. 1-1/2" heat weld.

Or

IB PVC Single Ply Fleeceback roof cover adhered to the insulation with IB Water Borne Adhesive at 1 gal/100 – 160 ft2 (substrate only) or IB Vertibond PVC Bonding Adhesive at 1 gal/45 - 60 ft2 (contact both sides). Side laps are

min. 3-inch wide sealed with min. 1-1/2" heat weld.

Maximum Design

Pressure: -255 psf. (See General Limitation #9.)



NOA No.: 16-0412.05 **Expiration Date: 04/28/21** Approval Date: 07/06/17

Page 7 of 30

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type A(3): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane

fully adhered

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

One or more layers of the following insulations:

Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft ²
ACFoam-II, IB EnergyBoard II, Multi-Max FA-3	` ,	·
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft ²
DensDeck, SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck or subsequent layers of insulation in ½" wide beads 12" o.c. of Pliodeck Insulation Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: IB PVC Single Ply roof cover adhered to the insulation with IB Water Borne

Adhesive at 1 gal/125 - 175 ft2 (substrate only). Side laps are min. 3-inch

wide sealed with min. $1-\frac{1}{2}$ " heat weld.

Or

IB PVC-GR 60 or IB PVC Single Ply roof cover adhered to the insulation with IB Vertibond PVC Bonding Adhesive at 1 gal/50 - 70 ft2 (contact both sides).

Side laps are min. 3-inch wide sealed with min. $1-\frac{1}{2}$ " heat weld.

Or

IB PVC Single Ply Fleeceback roof cover adhered to the insulation with IB Water Borne Adhesive at 1 gal/100 – 160 ft2 (substrate only) or IB Vertibond PVC Bonding Adhesive at 1 gal/45 – 60 ft2 (contact both sides). Side laps are

min. 3-inch wide sealed with min. $1-\frac{1}{2}$ " heat weld.

Maximum Design

-157.5 psf. using Base Layer of Insulation only (See General Limitation #9.)

Pressure:

-105 psf. using Base & Top Layer of Insulation (See General Limitation #9.)



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 8 of 30

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type A(4): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane

fully adhered

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

One or more layers of the following insulations:

Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft ²
ACFoam-II, IB EnergyBoard II, ACFoam-III, IB Energy	yBoard III, Multi-Max FA-	3, ISO 95+
GL		
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft ²
DensDeck, SECUROCK Gypsum-Fiber Roof Board	,	·
Minimum 0.5" thick	N/A	N/A

Note: All insulation shall be adhered to the deck or subsequent layers of insulation in 3" to 3.5" wide beads 12" o.c. of ICP Adhesives CR-20 or in continuous ½" beads 6" o.c. of Pliodeck Insulation Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: IB PVC Single Ply roof cover adhered to the insulation with IB Water Borne

Adhesive at 1 gal/125 - 175 ft2 (substrate only). Side laps are min. 3-inch

wide sealed with min. $1-\frac{1}{2}$ " heat weld.

Or

IB PVC-GR 60 or IB PVC Single Ply roof cover adhered to the insulation with IB Vertibond PVC Bonding Adhesive at 1 gal/50 - 70 ft2 (contact both sides).

Side laps are min. 3-inch wide sealed with min. $1-\frac{1}{2}$ " heat weld.

Or

IB PVC Single Ply Fleeceback roof cover adhered to the insulation with IB Water Borne Adhesive at 1 gal/100-160 ft2 (substrate only) or IB Vertibond PVC Bonding Adhesive at 1 gal/45-60 ft2 (contact both sides). Side laps are

min. 3-inch wide sealed with min. 1-1/2" heat weld.

Maximum Design

Pressure: -215 psf. (See General Limitation #9.)



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 9 of 30

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type A(5): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane

fully adhered

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

One or more layers of the following insulations:

Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft ²
ACFoam-II, IB EnergyBoard II, H-Shield, ISO 95+ GL		
Minimum 1.5" thick	N/A	N/A
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber	Roof Board	
Minimum 0.25" thick	N/A	N/A
Top Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft ²
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber	Roof Board	
Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck or subsequent layers of insulation in $\frac{3}{4}$ " – 1" wide beads 12" o.c. of OMG OlyBond 500 Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: IB PVC Single Ply roof cover adhered to the insulation with IB Water Borne

Adhesive at 1 gal/125 - 175 ft2 (substrate only). Side laps are min. 3-inch

wide sealed with min. 1-1/2" heat weld.

Or

IB PVC-GR 60 or IB PVC Single Ply roof cover adhered to the insulation with IB Vertibond PVC Bonding Adhesive at 1 gal/50 - 70 ft2 (contact both sides).

Side laps are min. 3-inch wide sealed with min. $1-\frac{1}{2}$ " heat weld.

Or

IB PVC Single Ply Fleeceback roof cover adhered to the insulation with IB Water Borne Adhesive at 1 gal/100-160 ft2 (substrate only) or IB Vertibond PVC Bonding Adhesive at 1 gal/45-60 ft2 (contact both sides). Side laps are

min. 3-inch wide sealed with min. $1-\frac{1}{2}$ " heat weld.

Maximum Design

Pressure: -120 psf. (See General Limitation #9.)



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 10 of 30

Single Ply, PVC **Membrane Type:**

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type A(6): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane

fully adhered

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

One or more layers of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
Thermapink 25	,	•
Minimum 1.0" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft ²
DensDeck, DensDeck Prime, SECUROCK	Gypsum-Fiber Roof Board	
Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck or subsequent layers of insulation in $\frac{3}{4}$ " – 1" wide beads 12" o.c. of OlyBond 500 Adhesive Fastener. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

IB PVC Single Ply roof cover adhered to the insulation with IB Water Borne Membrane:

Adhesive at 1 gal/125 - 175 ft2 (substrate only). Side laps are min. 3-inch

wide sealed with min. 1-1/2" heat weld.

Or

IB PVC-GR 60 or IB PVC Single Ply roof cover adhered to the insulation with IB Vertibond PVC Bonding Adhesive at 1 gal/50 - 70 ft2 (contact both sides).

Side laps are min. 3-inch wide sealed with min. 1-1/2" heat weld.

IB PVC Single Ply Fleeceback roof cover adhered to the insulation with IB Water Borne Adhesive at 1 gal/100 – 160 ft2 (substrate only) or IB Vertibond PVC Bonding Adhesive at 1 gal/45 – 60 ft2 (contact both sides). Side laps are

min. 3-inch wide sealed with min. 1-1/2" heat weld.

Maximum Design

-120 psf. (See General Limitation #9.) **Pressure:**



NOA No.: 16-0412.05 **Expiration Date: 04/28/21** Approval Date: 07/06/17 Page 11 of 30

Single Ply, PVC **Membrane Type:**

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type A(7): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane

fully adhered

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

One or more layers of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
Insulfoam EPS	,	·
Minimum 2.0" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
DensDeck, SECUROCK Gypsum-Fiber Roof Board	,	·
Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck or subsequent layers of insulation in $\frac{3}{4}$ " – 1" wide beads 12" o.c. of OMG OlyBond 500 Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

IB PVC Single Ply roof cover adhered to the insulation with IB Water Borne Membrane:

Adhesive at 1 gal/125 - 175 ft2 (substrate only). Side laps are min. 3-inch

wide sealed with min. 1-1/2" heat weld.

Or

IB PVC-GR 60 or IB PVC Single Ply roof cover adhered to the insulation with IB Vertibond PVC Bonding Adhesive at 1 gal/50 - 70 ft2 (contact both sides).

Side laps are min. 3-inch wide sealed with min. 1-1/2" heat weld.

IB PVC Single Ply Fleeceback roof cover adhered to the insulation with IB Water Borne Adhesive at 1 gal/100 – 160 ft2 (substrate only) or IB Vertibond PVC Bonding Adhesive at 1 gal/45 – 60 ft2 (contact both sides). Side laps are

min. 3-inch wide sealed with min. 1-1/2" heat weld.

Maximum Design

-120 psf. (See General Limitation #9.) **Pressure:**



NOA No.: 16-0412.05 **Expiration Date: 04/28/21** Approval Date: 07/06/17 Page 12 of 30

Deck Description: Min. 22 ga., Type B, Grade 33 steel. *The deck shall record a field withdrawal

resistance of 261 lbf. when tested with fasteners, listed in this assembly, installed

through to the deck in accordance with TAS 105.

System Type B(1): Base layer of insulation mechanically attached, top layer adhered with approved

adhesive, roof cover fully adhered.

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

One or more layers of the following.

Base Insulation Layer Insulation Fasteners (Table 3) Density/ft²
ACFoam-II, IB EnergyBoard II, ACFoam-III, IB EnergyBoard III, H-Shield, H-Shield CG
Minimum 2.0" thick 1, 3, 4, 5, 7, 8, 9, 10, 11, 12, 1:2.9 ft²
13, 24, 25, 26

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²

DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board, ACFoam-HD Coverboard Minimum 0.25" thick N/A

Note: All insulations shall be adhered with OlyBond 500 applied in $\frac{3}{4}$ " – 1" wide beads 12" o.c. or Millennium One Step Foamable Adhesive or IB Rapid Set Insulation Adhesive applied in $\frac{1}{2}$ " – $\frac{3}{4}$ " wide beads 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: IB PVC-GR 60 or IB PVC Single Ply roof cover adhered to the insulation with

IB Vertibond PVC Bonding Adhesive at 1 gal/50 – 70 ft2 (contact both sides).

Side laps are min. 3-inch wide sealed with min. 1-½" heat weld.

Or

IB PVC Single Ply roof cover adhered to the insulation with IB Water Borne Adhesive at 1 gal/125 - 175 ft2 (substrate only). Side laps are min. 3-inch wide

sealed with min. 1-1/2" heat weld.

Or

IB PVC Single Ply Fleeceback roof cover adhered to the insulation with IB Water Borne Adhesive at 1 gal/100 - 160 ft2 (substrate only) or IB Vertibond PVC Bonding Adhesive at 1 gal/45 - 60 ft2 (contact both sides). Side laps are

min. 3-inch wide sealed with min. 1-1/2" heat weld.

Maximum Design

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



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 13 of 30

N/A

Deck Description: Min. 22 ga., Type B, Grade 33 steel. *The deck shall record a field withdrawal

resistance of 180 lbf. when tested with fasteners, listed in this assembly, installed

through to the deck in accordance with TAS 105.

System Type B(2): Base layer of insulation mechanically attached, top layer adhered with approved

adhesive, roof cover fully adhered.

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

One or more layers of the following.

Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft ²
ACFoam-III, IB EnergyBoard III, H-Shield, H-Shield	CG	
Minimum 1.5" thick	1, 3, 4, 5, 7, 8, 9, 10, 11, 12,	$1:2.0 \text{ ft}^2$
	13, 24, 25, 26	
Top Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft ²
SECUROCK Gypsum-Fiber Roof Board	` ,	·
Minimum 0.25" thick	N/A	N/A

Note: All insulations shall be adhered with OlyBond 500 applied in $\frac{3}{4}$ " – 1" wide beads 12" o.c. or Millennium One Step Foamable Adhesive or IB Rapid Set Insulation Adhesive applied in 1/2" - 3/4" wide beads 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

IB PVC-GR 60 or IB PVC Single Ply roof cover adhered to the insulation with **Membrane:**

IB Vertibond PVC Bonding Adhesive at 1 gal/50 – 70 ft2 (contact both sides).

Side laps are min. 3-inch wide sealed with min. 1-1/2" heat weld.

Or

IB PVC Single Ply roof cover adhered to the insulation with IB Water Borne Adhesive at 1 gal/125 – 175 ft2 (substrate only). Side laps are min. 3-inch wide

sealed with min. 1-1/2" heat weld.

IB PVC Single Ply Fleeceback roof cover adhered to the insulation with IB Water Borne Adhesive at 1 gal/100 – 160 ft2 (substrate only) or IB Vertibond PVC Bonding Adhesive at 1 gal/45 – 60 ft2 (contact both sides). Side laps are

min. 3-inch wide sealed with min. $1-\frac{1}{2}$ " heat weld.

Maximum Design

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



NOA No.: 16-0412.05 **Expiration Date: 04/28/21** Approval Date: 07/06/17 Page 14 of 30

Deck Description: Min. 22 ga., Type B, Grade 33 steel. *The deck shall record a field withdrawal

resistance of 360 lbf. when tested with fasteners, listed in this assembly, installed

through to the deck in accordance with TAS 105.

System Type B(3): Thermal barrier mechanically attached, vapor barrier, base and top layer of

insulation adhered with approved adhesive, roof cover fully adhered.

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

One or more layers of the following.

Thermal Barrier
Thermal Fasteners
(Table 3)
Tensity/ft²

DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board
Minimum 0.5" thick
1, 3, 4, 5, 7, 8, 9, 10, 11, 12, 1:4.0 ft²
13, 24, 25, 26

Vapor Barrier: Sopravap'r, primed with Elastocol Stick Zero or Elastocol Stick applied at 1.0

gal./sq., adhered to the Thermal Barrier.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²

ACFoam-II, EnergyBoard II, ACFoam-III, IB EnergyBoard III, H-Shield, H-Shield CG

Minimum 1.0" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Fensity/ft²

 $Dens Deck\ Prime, SECUROCK\ Gypsum-Fiber\ Roof\ Board, ACFoam-HD\ Coverboard$

Minimum 0.25" thick N/A N/A

Note: All insulations shall be adhered with OlyBond 500 applied in $\frac{3}{4}$ " – 1" wide beads 12" o.c. or Millennium One Step Foamable Adhesive or IB Rapid Set Insulation Adhesive applied in $\frac{1}{2}$ " – $\frac{3}{4}$ " wide beads 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 15 of 30 Membrane:

IB PVC-GR 60 or IB PVC Single Ply roof cover adhered to the insulation with IB Vertibond PVC Bonding Adhesive at 1 gal/50 - 70 ft² (contact both sides). Side laps are min. 3-inch wide sealed with min. $1-\frac{1}{2}$ " heat weld.

Or

IB PVC Single Ply roof cover adhered to the insulation with IB Water Borne Adhesive at 1 gal/125 - 175 ft² (substrate only). Side laps are min. 3-inch wide sealed with min. $1-\frac{1}{2}$ " heat weld.

Or

IB PVC Single Ply Fleeceback roof cover adhered to the insulation with IB Water Borne Adhesive at 1 gal/100 – 160 ft² (substrate only) or IB Vertibond PVC Bonding Adhesive at 1 gal/45 – 60 ft² (contact both sides). Side laps are min. 3-inch wide sealed with min. $1-\frac{1}{2}$ " heat weld.

Maximum Design Pressure:

-45 psf. (See General Limitation #9.)



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 16 of 30

Deck Description: Min. 22 ga., Type B, Grade 40 steel decking secured to minimum 0.25 in. thick

structural steel supports spaced a maximum 6 ft o.c. with ITW Buildex Traxx/5 fasteners as maximum of 6" o.c. at each structural steel support. The deck side laps are secured with ITW Buildex Traxx/1 fasteners a maximum of 24" o.c. *The deck shall record a field withdrawal resistance of 240 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with

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

Evidence Submitted Table.

TAS 105.

System Type B(4): Base layer of insulation mechanically attached, top layer adhered with approved

adhesive, roof cover fully adhered.

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

One or more layers of the following.

Base Insulation Layer	Insulation Fasteners	Fastener	
	(Table 3)	Density/ft ²	
ACFoam-II, IB EnergyBoard II, ACFoam-III, IB EnergyBoard III, H-Shield, H-Shield CG			
Minimum 2.0" thick	1, 3, 4, 5, 7, 8, 9, 10, 11, 12,	1:1.6 ft ²	
	13, 24, 25, 26		

Top Insulation Layer	Insulation Fasteners	Fastener	
	(Table 3)	Density/ft ²	
SECUROCK Gypsum-Fiber Roof Board, DensDeck Prime, ACFoam-HD Coverboard			
Minimum 0.25" thick	N/A	N/A	

Note: All insulations shall be adhered with OlyBond 500 applied in $\frac{3}{4}$ " – 1" wide beads 6" o.c. or Millennium One Step Foamable Adhesive or IB Rapid Set Insulation Adhesive applied in $\frac{1}{2}$ " – $\frac{3}{4}$ " wide beads 6" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 17 of 30 Membrane:

IB PVC-GR 60 or IB PVC Single Ply roof cover adhered to the insulation with IB Vertibond PVC Bonding Adhesive at 1 gal/50 - 70 ft² (contact both sides). Side laps are min. 3-inch wide sealed with min. $1-\frac{1}{2}$ " heat weld.

Or

IB PVC Single Ply roof cover adhered to the insulation with IB Water Borne Adhesive at 1 gal/125 - 175 ft² (substrate only). Side laps are min. 3-inch wide sealed with min. $1-\frac{1}{2}$ " heat weld.

Or

IB PVC Single Ply Fleeceback roof cover adhered to the insulation with IB Water Borne Adhesive at 1 gal/100 – 160 ft² (substrate only) or IB Vertibond PVC Bonding Adhesive at 1 gal/45 – 60 ft² (contact both sides). Side laps are min. 3-inch wide sealed with min. $1-\frac{1}{2}$ " heat weld.

Maximum Design Pressure:

-75 psf. (See General Limitation #7.)



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 18 of 30

Deck Description: Min. 15/32" plywood or wood plank

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 the following.

Insulation Layer	Insulation Fasteners Fastener	
	(Table 3)	Density/ft ²
Multi-Max FA-3		
Minimum 1.5" thick	3, 4 (#12), 8, 13	1:1.6 ft ²
SECUROCK Gypsum-Fiber Roof Board		
	0.4 (//40) 0.40	4 4 6 9.3
Minimum 0.5" thick	3, 4 (#12), 8, 13	1:1.6 ft ²

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

Membrane: IB PVC Single Ply roof cover adhered to the insulation with IB Water Borne

Adhesive at 1 gal/125 – 175 ft2 (substrate only). Side laps are min. 3-inch wide

sealed with min. 1-1/2" heat weld.

Or

IB PVC-GR 60 or IB PVC Single Ply roof cover adhered to the insulation with IB Vertibond PVC Bonding Adhesive at 1 gal/50 – 70 ft2 (contact both sides).

Side laps are min. 3-inch wide sealed with min. 1-1/2" heat weld.

Or

IB PVC Single Ply Fleeceback roof cover adhered to the insulation with IB Water Borne Adhesive at 1 gal/100 - 160 ft2 (substrate only) or IB Vertibond PVC Bonding Adhesive at 1 gal/45 - 60 ft2 (contact both sides). Side laps are

min. 3-inch wide sealed with min. $1-\frac{1}{2}$ " heat weld.

Maximum Design

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



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 19 of 30

Deck Description: Min. 22 ga., Type B, Grade 33 steel. *The deck shall record a field withdrawal

resistance of 180 lbf. when tested with fasteners, listed in this assembly, installed

through to the deck in accordance with TAS 105.

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 the following.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft ²
Any Polyisocyanurate Insulation layer listed in Table 2 a	bove	
Any thickness	N/A	N/A
Top Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft ²
ACFoam-II, IB EnergyBoard II, ACFoam-III, EnergyBo	ard III, H-Shield, H-Shield C	CG, Multi-
Max FA-3		,
Minimum 1.5" thick	1, 3, 4, 5, 7, 8, 9, 10, 11, 12,	$1:2.0 \text{ ft}^2$
	13, 24, 25, 26	
ACFoam-HD Coverboard		
Minimum 0.5" thick	1, 3, 4, 5, 7, 8, 9, 10, 11, 12,	$1:2.0 \text{ ft}^2$
	13, 24, 25, 26	
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Boa	rd	
Minimum 0.25" thick	1, 3, 4, 5, 7, 8, 9, 10, 11, 12,	1:2.0 ft ²
	13, 24, 25, 26	

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



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 20 of 30 Membrane:

IB PVC-GR 60 or IB PVC Single Ply roof cover adhered to the insulation with IB Vertibond PVC Bonding Adhesive at 1 gal/50 - 70 ft² (contact both sides). Side laps are sealed with a min. $1 - \frac{1}{2}$ " heat weld.

Or

IB PVC Single Ply roof cover adhered to the insulation with IB Water Borne Adhesive at 1 gal/125 – 175 ft² (substrate only). Side laps are sealed with a min. $1-\frac{1}{2}$ " heat weld.

Or

IB PVC Single Ply Fleeceback roof cover adhered to the insulation with IB Water Borne Adhesive at 1 gal/100 - 160 ft² (substrate only) or IB Vertibond PVC Bonding Adhesive at 1 gal/45 - 60 ft² (contact both sides). Side laps are sealed with a min. $1 - \frac{1}{2}$ " heat weld.

Maximum Design Pressure:

-45 psf. (See General Limitation #9.)



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 21 of 30

Deck Description: Structural concrete or min. 22 ga., Type B, Grade 80 steel deck secured 6" o.c.

with ITW Buildex ICH TRAXX/5 screws to supports spaced max. 6 ft o.c. Side laps secured with ITW Buildex ICH TRAXX/1 screws spaced max 36" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 450 lbf. when tested with fasteners, listed in this assembly, installed through to the deck

in accordance with TAS 105.

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

Evidence Submitted Table.

System Type C(3): Membrane heat welded to fastener plates mechanically attaching insulation layer.

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.

Insulation Layer Insulation Fasteners Fastener (Table 3) Fastener

ACFoam-II, IB EnergyBoard II, ACFoam-III, IB EnergyBoard III

Minimum 1.5" thick N/A N/A

Note: All layers of insulation shall have preliminary attachment prior to the application of Isoweld plates and fasteners as outline below. See membrane description for fastener details. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: IB PVC Single Ply roof cover shall be heat welded to bonding plates as

specified below:

Fastening: Insulation shall be mechanically attached with Dekfast 12, Dekfast 14, Dekfast

15 HS, IB SD #12 Insulation Fasteners, IB HD #14 Roofing Fasteners, IB XHD #15 Roofing Fasteners with Isoweld F1-P-6.8-PVC Plates and IB 3" Isoweld Plates spaced 12" o.c. in fastener rows spaced 60" o.c. Membrane shall be bonding to plates with SFS Isoweld 3000 stand-up bonding tool. Side laps are

sealed with minimum 1.5" heat weld.

Maximum Design

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



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 22 of 30

Deck Description: Structural concrete or min. 22 ga., Type B, Grade 40 steel deck secured 6" o.c.

with 5/8" diameter puddle welds to supports spaced max. 6 ft o.c. Side laps secured with ITW Buildex ICH TRAXX/1 screws spaced max 36" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 420 lbf. when tested with fasteners, listed in this assembly, installed through to the deck

in accordance with TAS 105.

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

Evidence Submitted Table.

System Type C(4): Membrane heat welded to fastener plates mechanically attaching insulation layer.

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.

Insulation Layer Insulation Fasteners Fastener (Table 3) Fastener

ACFoam-II, IB EnergyBoard II, ACFoam-III, IB EnergyBoard III

Minimum 1.5" thick N/A N/A

Note: All layers of insulation shall have preliminary attachment prior to the application of Isoweld plates and fasteners as outline below. See membrane description for fastener details. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: IB PVC Single Ply roof cover shall be heat welded to bonding plates as

specified below:

Fastening: Insulation shall be mechanically attached with Dekfast 15 HS, IB XHD #15

Roofing Fasteners with Isoweld F1-P-6.8-PVC Plates and IB 3" Isoweld Plates spaced 2' o.c. in staggered fastener rows spaced 2' o.c (grid pattern). Membrane shall be bonding to plates with SFS Isoweld 3000 stand-up bonding tool. Side

laps are sealed with minimum 1.5" heat weld.

Maximum Design

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



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 23 of 30

Deck Description: Structural concrete or min. 22 ga., Type B, Grade 40 steel deck secured 6" o.c.

with ITW buildex ICH TRAXX/5 screws to supports spaced max. 6 ft o.c. Side laps secured with ITW Buildex ICH TRAXX/1 screws spaced max 36" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 630 lbf. when tested with fasteners, listed in this assembly, installed through to the deck

in accordance with TAS 105.

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

Evidence Submitted Table.

System Type C(5): Membrane heat welded to fastener plates mechanically attaching insulation layer.

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.

Insulation Layer Insulation Fasteners Fastener (Table 3) Fastener

ACFoam-II, IB EnergyBoard II, ACFoam-III, IB EnergyBoard III

Minimum 1.5" thick N/A N/A

Note: All layers of insulation shall have preliminary attachment prior to the application of Isoweld plates and fasteners as outline below. See membrane description for fastener details. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: IB PVC Single Ply roof cover shall be heat welded to bonding plates as

specified below:

Fastening: Insulation shall be mechanically attached with Dekfast 15 HS, IB XHD #15

Roofing Fasteners with Isoweld F1-P-6.8-PVC Plates and IB 3" Isoweld Plates spaced 2' o.c. in staggered fastener rows spaced 3' o.c (grid pattern). Membrane shall be bonding to plates with SFS Isoweld 3000 stand-up bonding tool. Side

laps are sealed with minimum 1.5" heat weld.

Maximum Design

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



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 24 of 30

Structural concrete or min. 22 ga., Type B, Grade 40 steel deck secured 6" o.c. **Deck Description:**

with 5/8" diameter puddle welds to supports spaced max. 6 ft o.c. Side laps secured with ITW Buildex ICH TRAXX/1 screws spaced max 36" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 495 lbf. when tested with fasteners, listed in this assembly, installed through to the deck

in accordance with TAS 105.

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

Evidence Submitted Table.

Membrane heat welded to fastener plates mechanically attaching insulation layer. **System Type C(6):**

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.

Insulation Fasteners Insulation Layer Fastener (Table 3) Density/ft²

ACFoam-II, IB EnergyBoard II, ACFoam-III, IB EnergyBoard III

Minimum 1.5" thick N/A N/A

Note: All layers of insulation shall have preliminary attachment prior to the application of Isoweld plates and fasteners as outline below. See membrane description for fastener details. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

IB PVC Single Ply roof cover shall be heat welded to bonding plates as **Membrane:**

specified below:

Fastening: Insulation shall be mechanically attached with Dekfast 15 HS, IB XHD #15

Roofing Fasteners with Isoweld F1-P-6.8-PVC Plates and IB 3" Isoweld Plates

spaced 1.5' o.c. in staggered fastener rows spaced 3' o.c (grid pattern).

Membrane shall be bonding to plates with SFS Isoweld 3000 stand-up bonding

tool. Side laps are sealed with minimum 1.5" heat weld.

Maximum Design

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



NOA No.: 16-0412.05 **Expiration Date: 04/28/21** Approval Date: 07/06/17 Page 25 of 30

Deck Description: Structural concrete or min. 22 ga., Type B, Grade 80 steel deck secured 6" o.c.

with ITW Buildex ICH TRAXX/5 screws to supports spaced max. 5 ft o.c. Side laps secured with ITW Buildex ICH TRAXX/1 screws spaced max 30" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 450 lbf. when tested with fasteners, listed in this assembly, installed through to the deck

in accordance with TAS 105.

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

Evidence Submitted Table.

System Type C(7): Membrane heat welded to fastener plates mechanically attaching insulation layer.

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.

Insulation Fasteners Fastener **Insulation Layer** Density/ft² (Table 3) ACFoam-II, IB EnergyBoard II, ACFoam-III, IB EnergyBoard III

Minimum 1.5" thick N/A N/A

Note: All layers of insulation shall have preliminary attachment prior to the application of Isoweld plates and fasteners as outline below. See membrane description for fastener details. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

IB PVC Single Ply roof cover shall be heat welded to bonding plates as **Membrane:**

specified below:

Insulation shall be mechanically attached with Dekfast 15 HS, IB XHD #15 **Fastening:**

> Roofing Fasteners with Isoweld F1-P-6.8-PVC Plates and IB 3" Isoweld Plates spaced 6" o.c. in fastener rows spaced 60" o.c. Membrane shall be bonding to plates with SFS Isoweld 3000 stand-up bonding tool. Side laps are sealed with

minimum 1.5" heat weld.

Maximum Design

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



NOA No.: 16-0412.05 **Expiration Date: 04/28/21** Approval Date: 07/06/17

Page 26 of 30

Deck Type 7I: Recover, Insulated

Deck Description: Min. 19/32-inch plywood or wood plank

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

All General and System Limitations apply. Roof

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

One or more layers of the following:

Insulation Layer	Insulation Fasteners	Fastener Density
ENRGY 3		
Minimum 1.5" thick	N/A	N/A
Thermapink 25, Insulfoam EPS		
Minimum 1.0" thick	N/A	N/A
DensDeck, DensDeck Prime, SECUROCK Gy	psum-Fiber Roof Board	
Minimum 0.25" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: IB PVC Single Ply or IB PVC Single Ply Fleeceback secured through the

preliminarily attached insulation as specified below:

Fastening #1: Install maximum 72" wide sheets with a 5" overlap fastened 6" o.c. using IB #14

HD Roofing Fasteners with IB 2" Barbed Seam Plates or OMG #14 Roofgrip Fasteners with OMG 2" Barbed Plates. The roof cover outer 1.5" side lap is

heat welded.

Maximum Design

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



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 27 of 30

Deck Description: Min. 18-22 ga., Type B, Grade 80 steel decking secured to minimum 0.25 in.

thick structural steel supports spaced a maximum 6 ft o.c. with ITW Buildex Traxx/4 or Traxx/5 fasteners as maximum of 6" o.c. at each structural steel support. The deck side laps are secured with ITW Buildex Traxx/1 fasteners a

maximum of 30" o.c.

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

Evidence Submitted Table.

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

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

One or more layers of the following.

 $\begin{array}{ccc} Insulation \ Layer & Insulation \ Fasteners & Fastener \\ & (Table \ 3) & Density/ft^2 \end{array}$

ACFoam-II, IB EnergyBoard II, ENRGY 3

Minimum 1.0" thick N/A N/A

Note: All layers of insulation and membrane sheet shall be simultaneously fastened. See membrane sheet below for fasteners and density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: IB PVC Single Ply mechanically fastened through the insulation as specified

below:

Fastening #1: Install maximum 72" wide sheets with a 5" overlap fastened 6" o.c. using OMG

XHD fasteners and OMG 2-3/8" Barbed XHD Plates or IB #15 XHD Roofing Fasteners and IB 2-3/8" Barbed Seam Plates or Dekfast 15 HS fasteners or IB XHD #15 Roofing Fasteners and Dekfast IF-2SB plates. The roof cover outer $1-\frac{1}{2}$ "

side lap is heat welded.

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

Fastening #2: Install maximum 72" wide sheets with a 5" overlap fastened 12" o.c. using OMG

XHD Fasteners and OMG 2-3/8" Barbed XHD Plates or IB #15 XHD Roofing Fasteners and IB 2-3/8" Barbed Seam Plates or Dekfast 15 HS fasteners or IB XHD #15 Roofing Fasteners and Dekfast IF-2-SB plates. The roof cover outer 1-

½" side lap is heat welded.

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

Maximum Design

Pressure: See Fastening Options Above



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 28 of 30

Deck Description: Concrete

System Type D(3): Membrane mechanically attached over preliminary fastened insulation.

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

One or more layers of the following.

Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft ²
ACFoam-II, IB EnergyBoard II, ENRGY 3		
Minimum 1.0" thick	N/A	N/A
ACFoam-III, IB EnergyBoard III		
, 3,		
Minimum 1.3" thick	N/A	N/A

Note: All layers of insulation and membrane sheet shall be simultaneously fastened. See membrane sheet below for fasteners and density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: IB PVC Single Ply mechanically fastened through the insulation as specified

below:

Fastening #1: Install maximum 72" wide sheets with a 5" overlap fastened 6" o.c. using OMG

CD-10 Fasteners and OMG 2-3/8" Barbed XHD Plates or IB CD-10 Roofing Fastener and IB 2-3/8" Barbed Seam Plates or Dekfast 15 HS fasteners, IB XHD #15 Roofing Fasteners or Dekfast DekSpike Fasteners and Dekfast IF-2-SB plates.

Side laps are sealed with a minimum $1-\frac{1}{2}$ " heat weld.

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

Fastening #2: Install maximum 72" wide sheets with a 5" overlap fastened 12" o.c. using OMG

CD-10 fasteners and OMG 2-3/8" Barbed XHD Plates or IB CD-10 Roofing Fastener and IB 2-3/8" Barbed Seam Plates or Dekfast 15 HS fasteners, IB XHD #15 Roofing Fasteners or Dekfast DekSpike Fasteners and Dekfast IF-2-SB plates.

Side laps are sealed with a minimum $1-\frac{1}{2}$ " heat weld.

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

Maximum Design

Pressure: See Fastening Options Above



NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 29 of 30

RECOVER SYSTEM LIMITATIONS:

- 1. All System Limitations and General Limitations shall apply. See specific deck type Notice of Acceptance for deck type System Limitations.
- 2. All assemblies listed herein shall be installed in compliance with the applicable sections of FBC 1521. Uplift performance of assemblies bonded to existing roofing system shall be verified per 1521.10. Uplift performance of assemblies mechanically attached through existing roofing system shall be verified per 1521.11.

GENERAL LIMITATIONS:

- 1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
- 2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
- 3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
- 4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.

Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.

- 5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
- 6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
- 7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant (When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)
- 8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
- 9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). (When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)
- 10 All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE

MIAMI-DADE COUNTY
APPROVED

NOA No.: 16-0412.05 Expiration Date: 04/28/21 Approval Date: 07/06/17 Page 30 of 30