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

NOTICE OF ACCEPTANCE (NOA)

Johns Manville Corporation
717 17th Street
Denver, CO 80202

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: JM PVC Single Ply Roof Systems over Recover 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.

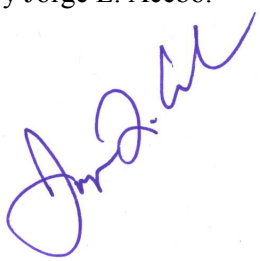
RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

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. 12-1113.22 and consists of pages 1 through 43.
The submitted documentation was reviewed by Jorge L. Acebo.



ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Single Ply
Materials:	PVC
Deck Type:	Recover
Maximum Design Pressure:	See specific assemblies.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
JM PVC	50 mil x roll width x 100' 60 mil x roll width x 100' 80 mil x roll width x 75'	ASTM D4434	PVC polyester reinforced membrane with DuPont™ Elvaloy® KEE. Available in 3.25', 5', 6.5', 10', and 12' rolls.
JM PVC Fleece Backed	50 mil x roll width x 90' 60 mil x roll width x 90' 80 mil x roll width x 75'	ASTM D4434	PVC polyester reinforced membrane backed with a lightweight polyester fleece. Available in 6.33' and 12' rolls.
JM PVC SD Plus	50 mil x roll width x 100' 60 mil x roll width x 100' 80 mil x roll width x 75'	ASTM D4434	PVC polyester reinforced membrane. Available in 5' and 10' rolls.
DynaFast 180 S	39-3/8" x 49'2"	ASTM D6164	A polyester reinforced SBS modified bitumen base or inner ply sheet.
JM PVC Profile	1-1/2" wide x 1-1/4" high x 10' long	Proprietary	Non-reinforced, extruded PVC for simulating the aesthetics of standing seam metal roofing.
JM PVC Spine	¾" wide x 13/16" high x 7' long	Proprietary	Non-reinforced, extruded PVC for simulating the aesthetics of standing seam metal roofing.
Urethane Insulation Adhesive	N/A	Proprietary	Urethane insulation adhesive.
JM Two Part Urethane Insulation Adhesive	N/A	Proprietary	A two-part urethane insulation adhesive.
JM Green Two Part Urethane Insulation Adhesive	N/A	Proprietary	A two-part urethane insulation adhesive.
JM PVC Membrane Adhesive (Low VOC)	N/A	Proprietary	Low solvent based adhesive.
JM PVC Membrane Adhesive (Water Based)	N/A	Proprietary	Water based adhesive.

Product	Dimensions	Test Specification	Product Description
JM Roofing System Urethane Adhesive	N/A	Proprietary	A two-part urethane insulation adhesive.
MBR Bonding Adhesive	N/A	Proprietary	Two part insulation and membrane adhesive
One-Step Foamable Adhesive	N/A	Proprietary	Two part urethane low rise foam insulation
JM PVC Penetration Pan	Various	ASTM D4434	Molded PVC for flashing penetration.
JM PVC Pipe Boots	Various	ASTM D4434	Non-reinforced molded PVC flashing penetrations.
JM PVC Universal Corner	Various	ASTM D4434	Non-reinforced molded PVC for inside and outside corner flashing.
JM PVC T-Joint Patch	Various	ASTM D4434	Non-reinforced PVC used to cover T-joints and fasteners.
JM PVC Detail Membrane	Various	ASTM D4434	Non-reinforced PVC used for pipe and corner flashing.
JM PVC Detail Strip	Various	ASTM D4434	PVC used to waterproof joints.
JM PVC Split Pipe Boot	Various	ASTM D4434	Reinforced PVC used to flash vent stacks and other round penetrations
JM PVC Coated Metal	Various	ASTM D4434	JM PVC laminated onto galvanized steel for metal flashings and edge details.
JM PVC Walkpad	Various	ASTM D4434	Textured PVC walk pad.
JM PVC Heavy-Duty	Various	ASTM D4434	Textured PVC walk pad.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI	Isocyanurate Insulation with glass reinforced facers.	Johns Manville
ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI	Isocyanurate Insulation with glass reinforced facers.	Johns Manville
Invinsa Roof Board	High-density Polyisocyanurate with fiber glass reinforced facers.	Johns Manville
Invinsa FR Roof Board	Flame-resistant, High density polyisocyanurate board.	Johns Manville
JM SECUROCK Gypsum-Fiber Roof Board	Fiber reinforced gypsum cover board.	Johns Manville
RetroPlus Roof Board	High density, perlite base cover board.	Johns Manville

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	High Load Fasteners	Insulation and membrane fastener	Various	Johns Manville
2.	High Load Plates	Galvanized steel plates for use with High Load Fasteners	2-3/8” diameter	Johns Manville
3.	Extra High Load Fastener	Truss head, self-drilling, pinch point, high thread fastener	#21 x 16” max. length	Johns Manville
4.	UltraFast Fastener	Insulation Fastener	#12 x 8" max. Length, #3 Phillips head	Johns Manville
5.	UltraFast 3” Round Metal Plate	Galvalume AZ55 steel plate	3” round & 3” square	Johns Manville
6.	All Purpose Fastener	Insulation and membrane fastener	#14 x 4” max. #3Phillips hd	Johns Manville
7.	JM Purlin Fastener	Hex-Head membrane fastener	#12 x 8” max. length	Johns Manville
8.	JM PVC RhinoPlate	Membrane bonding plate	3” Round	Johns Manville
9.	High Load LH	fastener for steel, wood, or concrete	#15 x 14" max. Oversize #3 Phillips head	Johns Manville
10.	Polymer Membrane Batten	Membrane anchors	1” plastic strips	Johns Manville
11.	APB Plates	Membrane plates	2” round steel plate	Johns Manville
12.	Trufast Twin Loc-Nail Batten Fastener	Base sheet fastener	2.7” dia. Plate	Altenloh, Brink & Co. U.S., Inc.
13.	Trufast Twin Loc Coiled Batten Bar	Oval pre-punched metal batten bar	1” x100’ coil	Altenloh, Brink & Co. U.S., Inc.
14.	Structural Concrete Deck Fastener	#14 knurled thread, hammer-in fastener	2-1/2” to 10” length	Johns Manville
15.	UltraFast Square Recessed Metal Plate	Galvalume AZ55 steel plate	3” round & 3” square	Johns Manville

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Test Name/Report	Date
FM Approvals	3025881	FM 4450	08/09/06
	3016629	FM 4470	12/12/03
	3018807	FM 4470	06/25/04
	3014692	FM 4470	08/05/03
	3025245	FM 4470	03/24/08
	3023458	FM 4450	07/18/06
	3025170	FM 4470	12/10/07
	3031670	FM 4470	12/10/07
	3033308	FM 4470	09/03/08
	797-09040-267	FM 4470	01/29/14
	797-07972-267	FM 4470	01/04/13
	3037110	FM 4470	10/03/09
	3037540	FM 4450	10/20/10
	3040105	FM 4470	11/24/10
	3035538	FM 4470	05/25/10
	3052049	FM 4470	07/01/15
	3046174	FM 4470	04/03/13
	3044716	FM 4470	10/19/12
UL LLC	R10167	UL 790	09/06/16
Momentum Technologies, Inc.	NX21J0A	ASTM D 4434	06/01/11
	NX21J0B	ASTM D 4434	07/20/11
	NX21J0C	ASTM D 4434	06/01/11
Momentum Technologies Int.	CX23G3A	ASTM D 4434	04/14/14
PRI Construction Materials Technologies, LLC	JMC-088-02-01.4	ASTM D1867/TAS 117(B)	09/06/13
	JMC-086-02-01	TAS 114(J)	01/03/13
	JMC-107-02-01.7	ASTM D5147/D903/D1876 TAS 117(A)/(B)/(C)	03/31/16
	JMC-108-02-01	TAS 114(J)	04/16/13
	JMC-109-02-01	TAS 114(J)	08/20/13
	JMC-114-02-01	TAS 114(J)	08/20//13
	JMC-131-02-01	TAS 114(J)	08/20/13
	JMC-141-02-01	TAS 114(J)	04/18/13
	JMC-168-02-01	TAS 114(J)	08/20/13
	JMC-193-02-01A	TAS 114(J)	04/28/14
	JMC-201-02-01A	TAS 114(J)	07/02/14
	JMC-209-02-01	TAS 114(J)	10/15/14
Trinity|ERD	J45020.05.13-1	TAS 114(C)	05/16/13
	J45020.09.13-1-R1	TAS 114(C)	09/12/13

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 adhesive to existing BUR; 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.

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

Note: Invinsa Roof Board shall fully adhered to the existing BUR with MBR Bonding Adhesive at a rate of 1.5 gal./sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Membrane fully adhered to the insulation as specified below.

Option #1: JM PVC Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) at a rate of 0.83 gal./sq. on both membrane and substrate. Side laps will be a minimum 2.5" wide and shall be sealed with a minimum 1.5" wide heat weld.

Option #2: JM PVC or JM PVC SD Plus Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) at a rate of 0.67 gal./sq., on both membrane and substrate. Side laps will be a minimum 2.5" wide and shall be sealed with a minimum 1.5" wide heat weld.

Maximum Design Pressure: -112.5 psf. (See General Limitation #9.)

Membrane Type: Single Ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type A(2): One or more layers of insulation adhered with approved adhesive to existing BUR; 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/ft²**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI		
Minimum 1.5" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck with JM Two-Part Urethane Insulation Adhesive in ¾" ribbons spaced 12" o.c. (with all insulations not 25 PSI) or Urethane Insulation Adhesive in ½" ribbons spaced 6" o.c. (with all insulations with 25 PSI) Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Invinsa Roof Board Minimum ¼" thick	**N/A**	**N/A**

Note: Invinsa Roof Board shall be adhered to the insulation with Urethane Insulation Adhesive in ½" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Membrane fully adhered to the insulation as specified below.

Option #1: JM PVC Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) at a rate of 0.83 gal./sq. on both membrane and substrate. Side laps will be a minimum 2.5" wide and shall be sealed with a minimum 1.5" wide heat weld.

Option #2: JM PVC or JM PVC SD Plus Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) at a rate of 0.67 gal./sq., on both membrane and substrate. Side laps will be a minimum 2.5" wide and shall be sealed with a minimum 1.5" wide heat weld.

Maximum Design Pressure: -112.5 psf. (See General Limitation #9.)

Membrane Type: Single ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type A(3): One or more layers of insulation 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 the following insulations:

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Invinsa Roof Board		
Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck with ¾" wide beads of JM Two-Part Urethane Insulation Adhesive, 12" o.c. or JM Roofing System Urethane Insulation Adhesive in ½" to ¾" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Fleece Backed Membrane fully adhered to the insulation as specified below.

Option #1: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 1 gal./sq., with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld on the substrate.

Option #2: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Option #3: Membrane is fully adhered to the insulation with approved hot asphalt applied at 20-25 lbs./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Maximum Design Pressure: -105 psf. (See General Limitation #9.)

Membrane Type: Single ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type A(4): One or more layers of insulation adhered with approved adhesive; membrane fully adhered.

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

One or more layers of the following insulations:

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI		
Minimum 1.5" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck with ¾" wide beads of JM Two-Part Urethane Insulation Adhesive, 12" o.c. or One Step Foamable Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Fleece Backed Membrane fully adhered to the insulation as specified below.

Option #1: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Option #2: Membrane is fully adhered to the insulation with approved hot asphalt applied at 20-25 lbs./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Maximum Design Pressure: -217.5 psf. (See General Limitation #9.)

Membrane Type: Single ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type A(5): One or more layers of insulation adhered with approved adhesive; membrane fully adhered.

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

One or more layers of the following insulations:

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Invinsa Roof Board		
Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck with ¾" wide beads of JM Two-Part Urethane Insulation Adhesive, 12" o.c. or JM Roofing System Urethane Insulation Adhesive in ½" to ¾" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Membrane fully adhered to the insulation as specified below.

Option #1: JM PVC or JM PVC SD Plus Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 1 gal./sq., with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld on the substrate.

Option #2: JM PVC Membrane is fully adhered to the insulation with JM PVC Membrane Adheisve (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Maximum Design Pressure: -105 psf. (See General Limitation #9.)

Membrane Type: Single ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type A(6): One or more layers of insulation adhered with approved adhesive; membrane fully adhered.

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

One or more layers of the following insulations:

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI		
Minimum 1.5" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck with ¾" wide beads of JM Two Part Urethane Insulation Adhesive, 12" o.c. or One Step Foamable Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Membrane fully adhered to the insulation as specified below.

Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Maximum Design Pressure: -217.5 psf. (See General Limitation #9.)

Membrane Type: Single ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: 2500 psi structural concrete.

System Type B: Base layer of insulation mechanically attached. Top layer of insulation fully adhered with approved asphalt or adhesive.

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)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI		
Minimum 1.5" thick	**6 or 14 with 5 or 15**	**1:2 ft^2**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
RetroPlus Roof Board		
Minimum 0.5" thick	**N/A**	**N/A**

Note: All top insulation shall be adhered to the base insulation with ¾" wide ribbons spaced 12" o.c. of JM Two-Part Urethane Insulation Adhesive or JM Green Two Part Urethane Insulation Adhesive, or 0.5-0.75" wide ribbons spaced 12" o.c. of Millennium PG-1 Pump Grade Adhesive or JM Roofing System Urethane Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Membrane fully adhered to the insulation as specified below.

Option #1: JM PVC Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Low Solvent Based) applied at a rate of 1.67 gal/sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Option #2: JM PVC Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 1.10 gal/sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Option #3: JM PVC Fleece Backed Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 1.0 gal/sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type C(1): One or more layers of insulation simultaneously attached. Membrane adhered.

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

One or more layers of the following insulations:

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI , ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1.5" thick	**5 or 15 with 6**	**1: 2 ft^2**

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

Membrane: JM PVC Fleece Backed membrane adhered to the insulation as specified below.

Option #1: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 1 gal./sq. on the substrate with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Option #2: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Option #3: Membrane is fully adhered to the insulation with approved hot asphalt applied at 20-25 lbs./sq. with minimum 2.5" wide side laps that shall be 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 7I: Recover, Insulated

Deck Description: Concrete

System Type C(2): All layers of insulation simultaneously attached. Membrane adhered.

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

One or more layers of the following:

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI , ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Plywood		
Minimum 19/32" thick	**5 or 15 with 6**	**1:2 ft^2**

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

Membrane: JM PVC Fleece Backed membrane is fully adhered to the insulation with approved hot asphalt applied at 20-25 lbs./sq. with minimum 2.5" wide side laps that shall be 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 7I: Recover, Insulated

Deck Description: Concrete

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

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

One or more layers of the following:

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1.5" thick	**5 or 15 with 6**	**1:1.78 ft^2**

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

Membrane: JM PVC Fleece Backed membrane fully adhered to the insulation as specified below.

Option #1: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Option #2: Membrane is fully adhered to the insulation with approved hot asphalt applied at 20-25 lbs./sq. with minimum 2.5" wide side laps that shall be 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 7I: Recover, Insulated

Deck Description: Concrete

System Type C(4): One or more 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 insulations:

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1.5" thick	**5 or 15 with 6**	**1: 2 ft^2**

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

Membrane: JM PVC membrane fully adhered with JM PVC Membrane Adhesive (Water Based) or JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.67 gal./sq. with minimum 2.5" wide side laps that shall be 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 7I: Recover, Insulated

Deck Description: Concrete

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 the following:

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1.5" thick	**5 or 15 with 6**	**1:1.78 ft^2**

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

Membrane: JM PVC membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with minimum 2.5" wide side laps that shall be 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 7I: Recover, Insulated

Deck Description: Concrete

System Type C(6): One or more layers of insulation preliminarily fastened; membrane bonded.

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)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
JM SECUROCK Gypsum Fiber Roof Board, Invinsa Roof Board, or Invinsa FR Roof Board		
Minimum 0.25" thick	**6 with 8**	**1:5.33 ft^2**
Plywood		
Minimum 19/32" thick	**6 with 8**	**1:5.33 ft^2**

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

Membrane: JM PVC or JM PVC SD Plus membrane is attached to the deck using All Purpose Fasteners and PVC RhinoPlates through preliminarily fastened insulation and then induction welded to JM PVC RhinoPlates. Minimum 2.5" wide side lap is sealed with minimum 1.5" wide heat welds offset from plates.

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

Membrane Type: Single ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type C(7): One or more layers of insulation preliminarily fastened; membrane bonded.

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)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
JM SECUROCK Gypsum Fiber Roof Board, Invinsa Roof Board, or Invinsa FR Roof Board		
Minimum 0.25" thick	**6 with 8**	**1:4 ft^2**
Plywood		
Minimum 19/32" thick	**6 with 8**	**1:4 ft^2**

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

Membrane: JM PVC or JM PVC SD Plus membrane is induction welded to JM PVC RhinoPlates. Minimum 2.5" wide side lap is sealed with minimum 1.5" wide heat welds offset from plates.

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

Membrane Type: Single Ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: $^{15}/_{32}$" or greater plywood or wood plank fastener with 0.113 x 2-3/8" ring shank nails spaced 6" o.c. The deck should record a Minimum Characteristic Resistance Force (MCRF) of 420 lbf. when tested with All Purpose Fasteners in accordance with TAS 105.

System Type C(8): One or more layers of insulation simultaneously attached. Membrane adhered.

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

One or more layers of the following:

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, or ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 0.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, or ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 0.5" thick	**6 with 5 or 15**	**1:4**
Invinsa Roof Board, Invinsa FR Roof Board, or JM SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**6 with 5 or 15**	**1:4**

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

Membrane: JM PVC or JM PVC SD Plus induction welded to JM PVC Rhino Plates. The minimum embedment into the wood supports shall be 1.5". Minimum 2.5" wide side lap is sealed with minimum 1.5" wide heat welds offset from plates.

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

Membrane Type: Single ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: 22 ga., steel deck installed over structural supports spaced 6-ft o.c. or structural concrete. The deck should record a Minimum Characteristic Resistance Force (MCRF) of 383 lbf. when tested with High Load Fasteners (Steel deck) or All Purpose Fasteners (concrete deck) installed through the deck in accordance with TAS 105. Total thickness of existing roof shall be a minimum 1".

System Type C(9): 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**	**Fastener Density/ft²**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1" thick	**1 with 8 (Steel deck)** **6 with 8 (Concrete deck)**	**1:2.13 ft²**
Invinsa Roof Board, Invinsa FR Roof Board, or JM SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**1 with 8 (Steel deck)** **6 with 8 (Concrete deck)**	**1:2.13 ft²**

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

Membrane: JM PVC or JM PVC SD Plus membrane is induction welded to JM PVC RhinoPlates. Minimum 2.5" wide side lap is sealed with minimum 1.5" wide heat welds offset from plates.

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

Membrane Type: Single ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga. steel deck attached to structural supports spaced a maximum 6-ft o.c. or structural concrete deck. The deck should record a Minimum Characteristic Resistance Force (MCRF) as shown in options below when tested with High Load Fasteners (Steel deck) or All Purpose Fasteners (concrete deck) installed through the deck in accordance with TAS 105. Total thickness of existing roof shall be a minimum 1".

System Type C(10): 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**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1" thick	**1 with 8 (Steel deck)** **6 with 8 (Concrete deck)**	**See Below**
Invinsa Roof Board, Invinsa FR Roof Board, or JM SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**1 with 8 (Steel deck)** **6 with 8 (Concrete deck)**	**See Below**

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

Membrane: JM PVC SD Plus membrane shall be induction welded as specifed below:

Option#1: Membrane shall be welded to JM PVC PhinoPlates spaced 12" o.c. in rows spaced 60" o.c. Side laps shall be a minumum 6" wide and sealed with a minimum 1.5" wide heat weld. ***(Maximum Design Pressure -45 psf. with MCRF= 450 lbf. See General Limitation #7).***

Membrane: (Continued)

Option#2: Membrane shall be welded to JM PVC PhinoPlates spaced 6" o.c. in rows spaced 72" o.c. Side laps shall be a minumum 6" wide and sealed with a minimum 1.5" wide heat weld.
(Maximum Design Pressure -82.5 psf. with MCRF= 445 lbf. See General Limitation #7).

Option#3: Membrane shall be welded to JM PVC PhinoPlates spaced 6" o.c. in rows spaced 60" o.c. Side laps shall be a minumum 6" wide and sealed with a minimum 1.5" wide heat weld.
(Maximum Design Pressure -90 psf. with MCRF= 450 lbf. See General Limitation #7).

Maximum Design Pressure: See options above.

Membrane Type: Single ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga. steel deck attached to structural supports spaced a maximum 6-ft o.c. or structural concrete deck. The deck should record a Minimum Characteristic Resistance Force (MCRF) of 420 lbf. when tested with High Load Fasteners (Steel deck) or All Purpose Fasteners (concrete deck) installed through the deck in accordance with TAS 105. Total thickness of existing roof shall be a minimum 1".

System Type C(11): 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**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1" thick	**1 with 8 (Steel deck)** **6 with 8 (Concrete deck)**	**1:4 ft^2**
Invinsa Roof Board, Invinsa FR Roof Board, or JM SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**1 with 8 (Steel deck)** **6 with 8 (Concrete deck)**	**1:4 ft^2**

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

Membrane: JM PVC SD Plus membrane is induction welded to JM PVC RhinoPlates. Side laps shall be a minumum 6" wide and 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 7I: Recover, Insulated

Deck Description: Existing Structural Non-Insulated Metal Panel Roof Assembly

System Type D(1): Membrane mechanically attached over metal roof panel, and 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 layer of one of the following:

Base Insulation Layer: Insulation shall be loose laid between ribs or over panels of existing metal roof system.	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Maximum 1" thick	**N/A**	**N/A**
Invinsa Roof Board or JM SECUROCK Gypsum-Fiber Roof Board		
Minimum 1/4" thick	**N/A**	**N/A**
Plywood		
Minimum 19/32" thick	**N/A**	**N/A**

Note: All insulation shall be preliminary attached to existing metal roof panels prior to installation of the roofing 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: JM PVC membrane attached through the preliminary attached insulation and existing roof assembly to 16 ga. min. steel purlins or structural steel supports spaced 5 ft. o.c. maximum as specified below.as specifie below.

Fastening #1: Membrane is mechanically attached using JM Purlin Fasteners and High Load Plates spaced 6" o.c. along supports within 6" wide laps, sealed with minimum 1-1/2" wide heat welds.
(Maximum Design Pressure -75 psf. See General Limitation #7)

Fastening #2: Membrane is mechanically attached using JM Purlin Fasteners and High Load Plates spaced 12" o.c. along supports within 6" wide laps, sealed with minimum 1-1/2" wide heat welds.
(Maximum Design Pressure -52.5 psf. See General Limitation #7)

Membrane: (Continued)

Fastening #3: Membrane is mechanically attached using JM Purlin Fasteners and High Load Plates spaced 18" o.c. along supports within 6" wide laps, sealed with minimum 1-1/2" wide heat welds.
(Maximum Design Pressure -45 psf. See General Limitation #7)

Maximum Design Pressure: See fastening above.

Membrane Type: Single ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Existing Structural Non-Insulated Metal Panel Roof Assembly

System Type D(2): Membrane mechanically attached over metal roof panel, and preliminarily fastened insulation.

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

One layer of one of the following:

Base Insulation Layer: Insulation shall be loose laid between ribs or over panels of existing metal roof system.	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Maximum 1" thick	**N/A**	**N/A**
Invinsa Roof Board or JM SECUROCK Gypsum-Fiber Roof Board		
Minimum 1/4" thick	**N/A**	**N/A**
Plywood		
Minimum 19/32" thick	**N/A**	**N/A**

Note: All insulation shall be preliminary attached to existing metal roof panels prior to installation of the roofing 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: JM PVC membrane attached through the preliminary attached insulation and existing roof assembly to 16 ga. min. steel purlins or structural steel supports spaced 5 ft. o.c. maximum as specified below.

Fastening #1: Membrane is mechanically attached using JM Purlin Fasteners and JM PVC RhinoPlates spaced 6" o.c. along ***every other support*** within 6" wide laps, sealed with minimum 1-1/2" wide heat welds.
(Maximum Design Pressure -45 psf. See General Limitation #7)

Fastening #2: Membrane is mechanically attached using JM Purlin Fasteners and JM PVC RhinoPlates spaced 6" o.c. along ***every*** support within 6" wide laps, sealed with minimum 1-1/2" wide heat welds.
(Maximum Design Pressure -120 psf. See General Limitation #7)

Membrane: (Continued)

Fastening #3: Membrane is mechanically attached using JM Purlin Fasteners and JM PVC RhinoPlates spaced 12" o.c. along ***every*** support within 6" wide laps, sealed with minimum 1-1/2" wide heat welds.
(Maximum Design Pressure -67.5 psf. See General Limitation #7)

Fastening #4: Membrane is mechanically attached using JM Purlin Fasteners and JM PVC RhinoPlates spaced 18" o.c. along ***every*** support within 6" wide laps, sealed with minimum 1-1/2" wide heat welds.
(Maximum Design Pressure -45 psf. See General Limitation #7)

Maximum Design Pressure: See fastening above.

Membrane Type: Single Ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga. steel deck with supports at a maximum 6 ft. o.c. *The deck should record a Minimum Characteristic Resistance Force (MCRF) of 533 lbf. when tested with High Load Fasteners in accordance with TAS 105.

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 to a maximum thickness of 1":

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

Base Sheet: One ply of DynaFast 180 S mechanically fastened through the insulation with High Load LH fastener 6" o.c. along the Polymer Membrane Batten placed within the center of every other 4" heat welded side lap for a maximum distance between rows of 71" o.c.

Membrane: JM PVC Fleece Backed applied with approved mopping asphalt at an application rate of 20-40 lbs./sq. The minimum 2.5" wide side laps shall be sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga. steel deck with supports at a maximum 6 ft. o.c. *The deck should record a Minimum Characteristic Resistance Force (MCRF) of 289 lbf. when tested with High Load Fasteners in accordance with TAS 105.

System Type D(4): 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 to a maximum thickness of 1":

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1.5" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

Base Sheet: One ply of DynaFast 180 S mechanically fastened through the insulation with High Load Fasteners & APB Plates spaced 6" o.c. within in the center of the 4" heat welded side laps.

Membrane: JM PVC Fleece Backed applied with approved mopping asphalt at an application rate of 20-40 lbs./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga. steel deck with supports at a maximum 6 ft. o.c. *The deck should record a Minimum Characteristic Resistance Force (MCRF) of 398 lbf. when tested with High Load Fasteners in accordance with TAS 105.

System Type D(5): 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 to a maximum thickness of 1":

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

Base Sheet: One ply of DynaFast 180 S mechanically fastened through the insulation with High Load Fasteners and High Load Plates spaced 12" o.c. within the 4" heat welded side laps.

Membrane: JM PVC Fleece Backed applied with approved mopping asphalt at an application rate of 20-40 lbs./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga. steel deck with supports at a maximum 6 ft. o.c. *The deck should record a Minimum Characteristic Resistance Force (MCRF) of 307 lbf. when tested with High Load Fasteners in accordance with TAS 105.

System Type D(6): 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 to a maximum thickness of 1":

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

Base Sheet: One ply of DynaFast 180 S mechanically fastened through the insulation with High Load Fasteners and High Load Plates spaced 6" o.c. within the every other 4" heat welded side laps for a maximum distance between rows of 70".

Membrane: JM PVC Fleece Backed applied with approved mopping asphalt at an application rate of 20-40 lbs./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: $^{15}/_{32}$" or greater plywood or wood plank fastened with 0.113 x 2-3/8" ring shank nails at a maximum spacing of 6" o.c. to supports having a maximum spacing of 24" o.c. The deck should record a Minimum Characteristic Resistance Force (MCRF) of 540 lbf. when tested with All Purpose Fasteners installed through the deck in accordance with TAS 105.

System Type D(7): All layers of insulation simultaneously mechanically fastened with base sheet

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**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, or ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 0.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, or ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 0.5" thick	**N/A**	**N/A**
Invinsa Roof Board, Invinsa FR Roof Board, or JM SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

Membrane: JM PVC or JM PVC SD Plus is mechanically attached using All Purpose Fasteners and High Load Plates spaced 12" o.c. within 6" wide laps, spaced 72" o.c. and sealed with minimum 1.5" wide heat welds. The minimum embedment into the wood supports shall be 1.5".

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

Membrane Type: Single Ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga. steel deck deck attached to structural supports spaced a maximum 6-ft o.c. or structursl concrete. The deck should record a Minimum Characteristic Resistance Force (MCRF) as shown in the fastening below when tested with JM High Load Fasteners (Steel deck) or All Purpose Fasteners (Concrete deck) in accordance with TAS 105.

System Type D(8): 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 any of the following insulations:

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

Membrane: JM PVC SD Plus membrane attached through the preliminary attached insulation as specified below.

Fastening #1: Membrane is mechanically attached using High Load Fasteners (Steel deck) or All Purpose Fasteners (Concrete deck) and High Load Plates spaced 12" o.c. within 6" wide laps, spaced 54" o.c. and sealed with minimum 1.5" wide heat welds. ***(Maximum Design Pressure -45 psf. with MCRF of 405 lbf. See General Limitation #7).***

Fastening #2: Membrane is mechanically attached using High Load Fasteners (Steel deck) or All Purpose Fasteners (Concrete deck) and High Load Plates spaced 6" o.c. within 6" wide laps, spaced 54" o.c. and sealed with minimum 1.5" wide heat welds. ***(Maximum Design Pressure -60 psf. with MCRF of 270 lbf. See General Limitation #7).***

Fastening #3: JM PVC SD Plus membrane fastened with High Load Fasteners (Steel deck) or All Purpose Fasteners (Concrete deck) and High Load Plates spaced 6" o.c. within 6" wide laps, spaced 114" o.c. and sealed with minimum 1.5" wide heat welds. ***(Maximum Design Pressure -45 psf. with MCRF of 428 lbf. See General Limitation #7).***

Maximum Design Pressure: See fastening above.

Membrane Type: Single Ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga. steel deck deck attached to structural supports spaced a maximum 6-ft o.c. or structursl concrete. The deck should record a Minimum Characteristic Resistance Force (MCRF) of 270 lbf. when tested with JM High Load Fasteners (Steel deck) or All Purpose Fasteners (Concrete deck) in accordance with TAS 105. Total thickness of existing roof shall be a minimum 1".

System Type D(9): All layers of insulation simultaneously mechanically fastened with base sheet

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**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, or ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 0.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, or ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 0.5" thick	**N/A**	**N/A**
Invinsa Roof Board, Invinsa FR Roof Board, or JM SECUROCK Gypsum-Fiber Roof Board		
Minimum 0.25" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

Membrane: JM PVC or JM PVC Plus membrane fastened with High Load Fasteners (Steel deck) or All Purpose Fasteners (Concrete deck) and Plates spaced 6" o.c. within 6" wide laps, spaced 72" o.c. and sealed with minimum 1.5" wide heat welds.

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

Membrane Type: Single ply, PVC

Deck Type 7: Recover, Non-Insulated

Deck Description: Lightweight Insulating Concrete over minimum 22 ga. steel deck with structural supports a maximum 6 ft. o.c. *The deck should record a Minimum Characteristic Resistance Force (MCRF) of 570 lbf. when tested with JM High Load Screws in accordance with TAS 105.

System Type E(1): Membrane mechanically fastened through existing Single-ply roofing into deck.

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

Membrane: JM PVC Fleece Backed (60 mil) membrane 10' wide mechanically fastened to steel deck with High Load fasteners & High Load Plates 6" o.c. within 6" wide side laps with min. 1.5" heat welded side laps.

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

Membrane Type: Single ply, PVC

Deck Type 7: Recover, Non-insulated

Deck Description: Cementitious Wood Fiber attached 8" o.c. with ¼"-14 PH screws and 2" diameter metal plates to structural supports at a maximum 32" o.c.*The deck should record a Minimum Characteristic Resistance Force (MCRF) of 131 lbf. when tested with Trufast Twin Loc-Nail Batten Fastener in accordance with TAS 105.

System Type E(2): Base sheet mechanically fastened.

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.

Base Sheet: One ply of DynaFast 180 S mechanically fastened with min. 1.8" Trufast Twin Loc-Nail Batten Fastener & Trufast Twin Loc Coiled Batten Bar spaced 6" o.c. within the 4" wide heat welded side laps and 6" o.c. at one intermediate row centered between the laps.

Membrane: JM PVC Fleece Backed applied with approved mopping asphalt at an application rate of 20-40 lbs./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single ply, PVC

Deck Type 7: Recover, Non-insulated

Deck Description: Lightweight Concrete with structural supports a maximum 5ft. o.c. *The deck should record a Minimum Characteristic Resistance Force (MCRF) of 178 lbf. when tested with Trufast Twin Loc-Nail Batten Fastener in accordance with TAS 105.

System Type E(3): Base sheet mechanically fastened over exisiting roof.

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.

Base Sheet: One ply of DynaFast 180 S mechanically fastened with Trufast Twin Loc-Nail Batten Fastener and Trufast Twin Loc Coiled Batten Bar spaced 6" o.c. in the center of the minimum 4" wide heat welded side laps.

Membrane: JM PVC Fleece Backed applied with approved mopping asphalt at an application rate of 20-40 lbs./sq. with minimum 2.5” wide side laps that shall be sealed with a minimum 1.5” wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 7: Recover, Non-insulated

Deck Description: Concrete

System Type F(1): Membrane fully adhered to existing roof.

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

Membrane:	PVC Fleece Backed membrane fully adhered as specified below.
Option #1:	Membrane is fully adhered with JM PVC Membrane Adhesive (Water Based) applied at a rate of 1 gal./sq., on the substrate with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.
Option #2:	Membrane is fully adhered with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq.. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.
Option #3:	Membrane is fully adhered with approved hot asphalt applied at 20-25 lbs./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.
Maximum Design Pressure:	-217.5 psf. (See General Limitation #9.)

Membrane Type: Single Ply, PVC

Deck Type 7: Recover, Non-insulated

Deck Description: Concrete

System Type F(2): Membrane adhered to existing modified bitumen granule surfaced roof system.

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

Membrane: PVC Fleece Backed membrane fully adhered with MBR Bonding Adhesive Adhesive at a rate of 1.5 gal./sq. or JM Two Part Urethane Insulation Adhesive applied in ¾" ribbons spaced 12" o.c. running parallel to the sheet width. Minimum 2.5" wide side laps shall be sealed with a minimum 1.5" wide heat weld.

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

Membrane Type: Single Ply, PVC

Deck Type 7: Recover, Non-insulated

Deck Description: Existing roof with mineral surfacing over minimum 22 ga. Type B steel deck.

System Type F(3): Membrane adhered to existing roof

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

Membrane: JM PVC Fleece Backed adhered with JM Roofing System Urethane Adhesive applied in 0.5-0.75" ribbons spaced 12" o.c. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

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

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 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 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