



MIAMI-DADE COUNTY
 PRODUCT CONTROL SECTION
 11805 SW 26 Street, Room 208
 Miami, Florida 33175-2474
 T (786)315-2590 F (786) 31525-99
www.miamidadegov/economy

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 Gypsum 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. 12-0410.09 and consists of pages 1 through 7.
 The submitted documentation was reviewed by Jorge L. Acebo.



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ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Single Ply
Material: PVC
Deck Type: Gypsum
Maximum Design Pressure: -112.5 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product Name</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
JM PVC Membrane	50 mil x 39 or 78" x 100' 60 mil x 39 or 78" x 100' 80 mil x 39 or 78" x 75'	ASTM D4434	PVC polyester reinforced membrane
JM PVC Fleece Backed	50 mil x 76" x 90' 60 mil x 76" x 90'	ASTM D4434	PVC polyester reinforced membrane backed with a lightweight polyester fleece.
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	3/4" wide x 13/16" high x 7' long	Proprietary	Non-reinforced, extruded PVC for simulating the aesthetics of standing seam metal roofing.
JM 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 PVC Membrane Adhesive (Low VOC)	N/A	Proprietary	Low solvent based adhesive
JM PVC Membrane Adhesive (Water Based)	N/A	Proprietary	Water borne adhesive
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.



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<u>Product Name</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
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 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 Walkpad	Various	ASTM D4434	Textured PVC walk pad.

APPROVED INSULATIONS:

TABLE 2

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
Invinsa Roof Board	High-density polyisocyanurate with fiber glass reinforced facers.	Johns Manville
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI	Polyisocyanurate Insulation.	Johns Manville
ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm 25 PSI, ValuTherm CGF, ValuTherm 25 PSI	Polyisocyanurate Insulation with glass reinforced facers.	Johns Manville

APPROVED FASTENERS:

TABLE 3

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
1.	Twin Loc-Nail	Base sheet fastener <i>with and without</i> integrated Plate.	2.7" dia. Plate	Altenloh, Brink & Co. U.S., Inc.
2	Straight Line Batten Bar	Oval pre-punched metal batten bar	1" x100' coil	Altenloh, Brink & Co. U.S., Inc.



EVIDENCE SUBMITTED:

<u>Test Agency Name</u>	<u>Identifier</u>	<u>Report</u>	<u>Date</u>
FM Approvals	3018807	FM 4470	06/25/04
	3014692	FM 4470	08/05/03
	3016629	FM 4470	12/12/03
	3025881	FM 4450	08/09/06
	3014692	FM 4470	12/20/02
	3018579	FM 4450	10/09/03
	3037540	FM 4450	10/20/10
Exterior Research & Design, LLC	P6860.06.07	FM 4470/TAS 114	08/01/07
Momentum Technologies, Inc.	NX21J0A	ASTM D 4434	06/01/11
	NX21J0B	ASTM D 4434	07/20/11
	NX21J0C	ASTM D 4434	06/01/11
PRI Construction Materials Technologies, LLC	JMC-088-02-01	ASTM D1867/TAS 117 B	09/06/13
	JMC-107-02-01-R4	ASTM D5147/D903/D1876 TAS 117(A)/(B)/(C)	11/13/13
	JMC-108-02-01	TAS 114(J)	04/16/13
	JMC-131-02-01	TAS 114(J)	08/20/13
	JMC-141-02-01	TAS 114(J)	04/18/13
Trinity ERD	J45020.09.13-1-R1	FM 4474	09/12/13



Membrane Type: Single Ply, PVC
Deck Type 6I: Poured Gypsum, Insulated
Deck Description: Poured Gypsum
System Type A: 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

Note: All insulation shall be adhered to the deck with JM Two-Part Urethane Insulation Adhesive in 3/4" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
Invinsa Roof Board Minimum 1/4" thick	N/A	N/A

Note: Invinsa Roof Board shall be adhered to the insulation with JM Urethane Insulation Adhesive in 3/4" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC 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) at a rate of 0.83 gal./sq. on both membrane and substrate, and heat-welded 1.5" side laps.

Option #2: 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 and heat-welded 1.5" side laps.

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



Membrane Type: Single ply, PVC
Deck Type 6: Poured Gypsum, Non-insulated
Deck Description: Poured Gypsum
System Type E: 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" Twin-Loc Nail without integrated plate & Straight Line Batten Bar spaced 6" o.c. within the 4" wide torch welded side laps.

Membrane: JM PVC Fleece Backed applied with approved mopping asphalt at an application rate of 20-40 lbs./sq. with min. 1.5" heat welded side laps.

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



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



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