MIAMI-DADE

BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908

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 by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) 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 Division (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. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division 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 High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Johns Manville EPDM 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 renews and revises NOA # 00-0424.14 and consists of pages 1 through 11.
The submitted documentation was reviewed by Frank Zuloaga, RRC

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Single Ply
Material:	EPDM
Deck Type:	Poured Gypsum
Maximum Design Pressure	-75 psf
Fire Classification:	See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product Name	Dimensions	Test Specifications	Product Description
.045 EPDM	various	ASTM D 4637	45 mil non-reinforced black EPDM sheet.
.045R EPDM	various	ASTM D 4637	45 mil reinforced black EPDM sheet.
.060 EPDM	various	ASTM D 4637	60 mil non-reinforced black EPDM sheet.
.060R EPDM	various	ASTM D 4637	60 mil reinforced black EPDM sheet.
.060FR EPDM	various	ASTM D 4637	60 mil non-reinforced, flame retardant black EPDM sheet.
.060W EPDM	various	ASTM D 4637	60 mil non-reinforced white EPDM sheet.
EPDM Lap Caulk		PA 110	Black Sealant for Lap Seams.
EPDM Lap Caulk - White		PA 110	White sealant for lap seams.
EPDM Lap Cement - Black		PA 110	Lap Cement for Black Membrane.
EPDM Lap Cement - White		PA 110	Lap Cement for White Membrane.
EPDM Flashing - White	various	ASTM D 4637	60 mil uncured EPDM (white) sheet for flashing details.
EPDM Color Coating		PA 110	Hypalon paint for color coating EPDM membranes.

Product Name	Dimensions	Test Specifications	Product Description
EPDM Bonding Adhesive		PA 110	Rubber based adhesive for adhering membrane or flashing sheet to porous substrate.
EPDM Flashing-Black	various	ASTM D 4637	60 mil uncured EPDM (black) sheet for flashing details.
EPDM Seam Tape	Various		Self adhering splice tape for splicing EPDM sheets
EPDM Peel & Stick Flashing	various		6"-12" self adhesive flashing for EPDM systems
EPDM Reinforced Termination Strip	Various		6" reinforced cured EPDM strip for securing EPDM membrane in corners and perimeters

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
Millox	Isocyanurate Insulation with wood fiberboard facer	Apache Products Co.
Pyrox, White Line	Isocyanurate Insulation	Apache Products Co.
ACFoam Composite	Isocyanurate Insulation with perlite facer	Atlas Roofing Corp.
ACFoam II	Isocyanurate Insulation	Atlas Roofing Corp.
Styrofoam	Extruded polystyrense insulation	Dow
Dens Deck	Silicon treated gypsum	G-P Products
Sturdi-Top	Wood fiber insulation board.	G-P Products
ENRGY 2, ENRGY 3, PSI-25	Isocyanurate Insulation	Johns Manville
Fesco Foam, DuraFoam	Isocyanurate Insulation with perlite facer	Johns Manville
Retro-Fit Board, DuraBoard	A high-density perlite roof insulation.	Johns Manville
Fesco Board	Rigid perlite roof insulation board.	Johns Manville
Wood Fiberboard	Regular wood fiber insulation	Generic
High Density Wood Fiberboard	High Density Wood Fiber insulation board.	Generic
Perlite Insulation Board	Perlite Insulation	Generic

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
Type X Gypsum	Gypsum Wallboard	Generic
XPS	Extruded polystyrene	Generic
Multi-Max FA	Polyisocyanurate foam insulation	RMAX
Fiber Base	Asphalt coated wood fiber insulation	Temple Inland Forest Products Corp.
Structodeck	High Density Wood Fiber insulation board.	Wood Fiber Industries

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	JM HP Lightweight	Insulation fastener for cementitious and gypsum decks	Various	Johns Manville
2.	JM HP Lightweight	Metal plates used for membrane securement with HP fasteners.	3" dia	Johns Manville
3.	JM HP Locking Seam Plates	Metal plates with plastic inserts used for membrane securement with fasteners.	2" dia	Johns Manville
4.	JM Polymer Seam Plates	Plastic plates used for membrane securement with fasteners.	2" dia	Johns Manville
5.	NTB Magnum	Insulation fastener for cementitious and gypsum decks	Various	Johns Manville
6.	NTB Plate	Galvalume AZ55 stress plate	3" round	Johns Manville
7.	NTB Plastic Plate	Plastic plates for NTB 2" head fasteners.	3" round	Johns Manville
8.	Lite-Deck Fasteners	Insulation fastener for cementitious and gypsum decks	Various	Olympic Mfg. Group
9.	NTB Magnum	Insulation fastener for cementitious and gypsum decks	Various	Olympic Mfg. Group
10.	GTL Fastener	Insulation fastener for cementitious and gypsum decks with a 3" round head plate.	Various	Olympic Mfg. Group

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
11.	Strap Toggle	Insulation fastener for steel, wood and gypsum decks.	Various	Olympic Mfg. Group
12.	Iron-Lok Toggle	Insulation fastener for steel, wood and gypsum decks.	Various	Olympic Mfg. Group
13.	Lite-Deck Plate	3" round Galvalume AZ55 stress plate	3" round	Olympic Mfg. Group
14.	NTB Plate	3" round Galvalume AZ55 stress plate	3" round	Olympic Mfg. Group
15.	NTB Metal Barbed Stress Plate	2" round Galvalume AZ55 stress plate	2" round	Olympic Mfg. Group
16.	NTB Plastic Plate	Plastic plates for NTB 2" head fasteners.	3" round	Olympic Mfg. Group
17.	Olympic Standard	3" round Galvalume AZ55 stress plate	3" round	Olympic Mfg. Group
18.	Olympic G-2	3.5" round Galvalume AZ55 stress plate	3.5" round	Olympic Mfg. Group
19.	Olympic	Plastic plates for fasteners.	3" round	Olympic Mfg. Group
20.	Powerlite	Insulation fastener for cementitious and gypsum decks	Various	Powers Fasteners Inc.
21.	Powerlite	3" round Galvalume AZ55 stress plate	3" round	Powers Fasteners Inc.

EVIDENCE SUMBITTED:

Test Agency	Test Identifier	Description	Date
Factory Mutual Research Corp.	J.I. 1B7A5.AM	Wind Uplift and Fire Classification	2/23/98
	J.I. 2D6A6.AM	Wind Uplift Classification	10/07/98
	3012974	Class 4450	06/03/02
	FM Approval Guide	Current insulation and fastening requirements	Annually
Underwriters Laboratories, Inc.	UL Directory	File No. R8103	Annually

APPROVED ASSEMBLIES

Membrane Type: Single Ply, Thermoset, EPDM, Reinforced, Nonreinforced

Deck Type 6I: Poured Gypsum, Insulated

Deck Description: Poured Gypsum Concrete

System Type C: All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
One of the following covered with the boards listed in Top Layer or Base or Top Layer.		
Extruded or Expanded Polystyrene, Energy-Lok, ACFoam II		
Minimum 1" thick	**N/A**	**N/A**
Fesco Board, DuraBoard		
Minimum ¾" thick	**N/A**	**N/A**

Note: All layers shall be simultaneously fastened; see top layer below 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.

Base or Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
WHITELINE, PYROX, AP		
Minimum 1.4" thick	**1, 5, 8, 9, 10, 11, 12 or 20**	**1:2 ft^2**
ENRGY-2, ENRGY-3, PSI-25, AC Foam II, Fesco Foam, DuraFoam		
Minimum 1.5" thick	**1, 5, 8, 9, 10, 11, 12 or 20**	**1:2 ft^2**
HP Recovery		
Minimum ½" thick	**1, 5, 8, 9, 10, 11, 12 or 20**	**1:2 ft^2**
High Density Fiberboard		
Minimum ¾" thick	**1, 5, 8, 9, 10, 11, 12 or 20**	**1:2 ft^2**
Wood Fiber		
Minimum 1" thick	**1, 5, 8, 9, 10, 11, 12 or 20**	**1:2 ft^2**
Fiber Base, Sturdi Top		
Minimum ½" thick	**1, 5, 8, 9, 10, 11, 12 or 20**	**1:2 ft^2**

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Required over the insulations listed in Base Layer or optional over any of the insulations listed as Base or Top Layer:		
HP Recovery (for use over all insulation. types) **Fiber Base** (for use over polyisocyanurate, gypsum or perlite)		
Minimum ½" thick	**1, 5, 8, 9, 10, 11, 12 or 20**	**1:2 ft^2**

Vapor Retarder:	(Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.
Barrier:	None.
Membrane:	EPDM .045, EPDM .045R, EPDM .060, EPDM .060R, EPDM .060FR or EPDM .060W fully adhered to the insulation using EPDM Bonding Adhesive applied to the substrate at a rate of 1 gal/60 ft.^{2}.
Surfacing:	(Optional) A two part surfacing consisting of EPDM Color Coating applied to a clean membrane surface, after a two week cure at the rate of 1 gal./150 ft.^{2} and silica sand applied into the wet coating at a rate of 35 lbs./sq.
Maximum Design Pressure:	-45 psf. (See General Limitation #9.)

Membrane Type: Single Ply, Thermoset, EPDM, Reinforced

Deck Type 6I: Poured Gypsum, Insulated, New Construction

Deck Description: Poured Gypsum Concrete

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

All General and System Limitations apply.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
One of the following covered with the boards listed in Top Layer or Base or Top Layer.		
Extruded or Expanded Polystyrene, Energy-Lok, ACFoam II **Minimum 1" thick**	**N/A**	**N/A**
Fesco Board, DuraBoard **Minimum ¾" thick**	**N/A**	**N/A**

Base or Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
WHITELINE, PYROX, AP, Multi-Max FA **Minimum 1.2" thick**	**N/A**	**N/A**
ENRGY-2, ENRGY-3, PSI-25, AC Foam II **Minimum 1.5" thick**	**N/A**	**N/A**
HP Recovery **Minimum ½" thick**	**N/A**	**N/A**
High Density Fiberboard **Minimum ¾" thick**	**N/A**	**N/A**
Structodeck, Wood Fiber, Fiber Base **Minimum ½" thick**	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Required over the insulations listed in Base Layer or optional over any of the insulations listed as Base or Top Layer:		
HP Recovery Retro-Fit Board, DuraBoard (for use over all insulation. types) **Fiber Base** (for use over polyisocyanurate, gypsum or perlite) **Minimum ½" thick**	**N/A**	**N/A**
Fesco (use over all other insulation types) **Minimum ¾" thick**	**N/A**	**N/A**

Note: Top layer shall have preliminary attachment, prior to the installation of the membrane, at an 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. All layers of insulation and membrane shall be simultaneously fastened. See membrane below for fasteners and density.

Vapor Retarder:	(Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.
Barrier:	None.
Membrane:	EPDM .045, EPDM .045R, EPDM .060, EPDM .060R, EPDM .060FR or EPDM .060W secured through the preliminary attached insulation as specified below.
Fastening:	JM HP fasteners with metal plates 6" o.c. through the reinforced membrane in the lap or through a 6" strip 6'6" o.c., and the lap sealed, or the membrane fully adhered to the 6" strip with EPDM Lap Cement.
Surfacing:	(Optional) A two part surfacing consisting of EPDM Color Coating applied to a clean membrane surface, after a two week cure at the rate of 1 gal./150 ft.^{2} and silica sand applied into the wet coating at a rate of 35 lbs./sq.
Maximum Design Pressure:	-45 psf. (See General Limitation #9.)

Membrane Type: Single Ply, Thermoset, EPDM, Reinforced

Deck Type 6: Poured Gypsum, Uninsulated,

Deck Description: Poured gypsum concrete.

System Type E: Membrane mechanically attached to deck.

All General and System Limitations apply.

Barrier: None.

Membrane: EPDM .045, EPDM .045R, EPDM .060, EPDM .060R, EPDM .060FR or EPDM .060W secured through the gypsum to a minimum 22 gauge steel deck as specified below.

Fastening: High Load Fasteners with metal or poly plates 6" o.c. through the reinforced membrane in the lap or through a 6" strip 6'6" o.c., and the lap sealed, or the membrane fully adhered to the 6" strip with EPDM Lap Cement.

Surfacing: (Optional) A two part surfacing consisting of EPDM Color Coating applied to a clean membrane surface, after a two week cure at the rate of 1 gal./150 ft.^{2} and silica sand applied into the wet coating at a rate of 35 lbs./sq.

Maximum Design Pressure: -75 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 sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9B-72 of the Florida Administrative Code.

END OF THIS ACCEPTANCE