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)

Carlisle Coatings & Waterproofing, Inc.
900 Hensley Lane
Wylie, TX 75098

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: : Miraseal Fluid-Applied Waterproofing Membrane

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 consists of pages 1 through 10.
The submitted documentation was reviewed by Alex Tigera.

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Waterproofing
Material	Rubberized Asphalt
Deck Type:	Concrete
Maximum Design Pressure	**-212.5 psf**

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

Product	Dimensions	Test Specification	Product Description
Miraseal	5 gal. Pails	Proprietary	Single component, cold-applied Rubberized asphalt compound for Reinforced Applications.
CCW Reinforcement	Various	Proprietary	Polyester or fiberglass reinforcement fabric.
CCW Protection Board	Various	Proprietary	Asphalt impregnated protection board.
CCW-201 Sealant	1.5 gal. Kit	TT-S-227E	Multi-component polyurethane sealant

PRODUCTS MANUFACTURED BY OTHERS

Product	Dimensions	Test Specification	Product Description	Manufacturer
Concrete pavers	1' x 1' x 1½" thick	ASTM C936	8000 psi Min. Compressive strength, 5% water absorption max.	PaverModule
Concrete pavers	1' x 1' x 1½" thick	ASTM C936	8000 psi Min. Compressive strength, 5% water absorption max.	TREMRON
Mortar mix	3:1 mix		Three parts white masonry sand to one part cement (Portland Cement Type I).	Generic
Sure-Seal EPDM	Various	ASTM D4637	Non-reinforced EPDM membrane	Carlisle Syntec, Inc.
Insulfoam EPS	Various	ASTM C 578	Expanded Polystyrene	Insulfoam, LLC.

EVIDENCE SUBMITTED

Test Agency	Test Identifier	Test Specification	Report Date
Trinity ERD	C43600.07.13-3	ASTM D 6380	07/29/13
	C43600.07.13-5	TAS 132	07/29/13
Architectural Testing	C9356.01-131-24	ASTM E 108	06/26/13
Atlantic & Caribbean Roof Consulting, LLC	ACRC 11-026	TAS 114 App. D	05/16/11
	ACRC 11-027	TAS 114 App. D	05/16/11
	ACRC 10-027	TAS 114 App. D	01/06/11
PRI Construction Materials Technologies	CCW-005-02-01	ASTM C 836	01/09/14

APPROVED ASSEMBLIES:

Deck Type 3 Concrete Decks

Deck Description: Min. 2500 psi, dual slab construction

System Type A(1): Miraseal, Reinforced, Top slab

Substrate Preparation: New concrete shall be water cured and be in place for 3 days minimum, 7 days preferred. If curing agents are required, they must be 100% sodium silicate and be approved by the membrane manufacturer. Venting of the deck from the underside is recommended to facilitate drying.

Surface shall be structurally sound, dry, and free of dust, dirt, laitance, non-approved curing agent or other contamination which may affect adhesion of the membrane. Remove splatters, fins, ridges or other projections to provide a level surface. Fill holes, honeycombs, rock pockets, spalls or other voids and indentations with approved concrete patching compound. Grind or fill surface at cold joints where each pour is at a different plane to provide a smooth and level surface.

Saw cut moving cracks greater than $^{1}/_{16}$" wide to $^{1}/_{4}$" x $^{1}/_{4}$". Saw cut a $^{1}/_{4}$" x $^{1}/_{4}$" kerf around drain flanges. Mix CCW-201 Sealant and apply a 1-$^{1}/_{2}$" x 1-$^{1}/_{2}$", 45 degree sealant cant at the juncture of all vertical and horizontal surfaces including pipes and all other projections. Fill saw cut cracks and saw cuts around drain flanges. Install backer rod and sealant to all expansion joints. Allow the sealant to cure overnight.

Membrane Flashing: Apply a thin, even coat of Miraseal Membrane 4" – 6" wide (Stripe Coat). Stripe Coat shall be 45mils +/- 5 mils thick, centered over all cracks greater than $^{1}/_{16}$" wide and all moving cracks.

At the juncture of all vertical sections with the deck surface, such as parapet walls, columns and all projections through the deck, apply a stripe coat of Miraseal to the vertical wall section to the height of a minimum of 8", and 8" onto the deck. Flashing must terminate a minimum of 1" below top of wearing slab.

Base Coat: Apply Miraseal to the surface at a rate of 26 ft^2/gallon or as required to obtain 60 mils minimum average thickness.

Reinforcement: Install CCW Reinforcement as quickly as possible, to the uncured Miraseal. Place reinforcement carefully to avoid wrinkles, overlap edges 0" to ½".

Top Coat: Top coat CCW Reinforcement with a second coat of Miraseal at a rate of 26 ft^2/gallon (60 mils) for 120 mil system.

Protection Course: Once integrity testing is complete, place CCW Protection Board over the membrane as soon as possible. Tightly butt all protection, leaving no gaps greater than 0.125".

Integrity Test:	Required, and shall be performed in accordance with ASTM D 5957. Water may be maintained for a period longer than 24 hours if required.
Inspection:	Inspection shall be witnessed by the Building Official, the building owner's representative, general contractor, architect/engineer, waterproofing contractor, and a representative of Carlisle Coatings & Waterproofing Incorporated.
Repairs:	In the event the Miraseal is damaged, clean the area with a cloth wet with weatherd membrane cleaner and apply Miraseal to the damaged area.
Surfacing:	Structural Concrete Slab, minimum 2500 psi.
Maximum Design Pressure:	N/A

Deck Type 3 Concrete Decks

Deck Description: Min. 2500 psi

System Type A(2): Miraseal, Reinforced, Pavers

Substrate: New concrete shall be water cured and be in place for 3 days minimum, 7 days preferred. If curing agents are required, they must be 100% sodium silicate and be approved by Carlisle Coatings & Waterproofing Inc. Venting of the deck from the underside is recommended to facilitate drying.

Substrate Preparation: Surface shall be structurally sound, dry, and free of dust, dirt, laitance, non-approved curing agent or other contamination which may affect adhesion of the membrane. Remove splatters, fins, ridges or other projections to provide a level surface. Fill holes, honeycombs, rock pockets, spalls or other voids and indentations with approved concrete patching compound. Grind or fill surface at cold joints where each pour is at a different plane to provide a smooth and level surface.

Saw cut moving cracks greater than 1/16" wide to 1/4" X 1/4". Saw cut a 1/4" X 1/4" kerf around drain flanges. Mix CCW-201 Sealant and apply a 1-1/2" X 1-1/2", 45 degree sealant cant at the juncture of all vertical and horizontal surfaces including pipes and all other projections. Fill saw cut cracks and saw cuts around drain flanges. Install backer rod and sealant to all expansion joints. Allow the sealant to cure overnight.

Membrane Flashing: Apply a thin, even coat of Miraseal Membrane 4" – 6" wide (Stripe Coat). Stripe Coat shall be 45mils +/- 5 mils thick, centered over all cracks greater than $^{1}/_{16}$" wide and all moving cracks.

At the juncture of all vertical sections with the deck surface, such as parapet walls, columns and all projections through the deck, apply a stripe coat of Miraseal to the vertical wall section to the height of a minimum of 8", and 8" onto the deck. Flashing must terminate a minimum of 1" below top of wearing slab.

Base Coat: Apply Miraseal to the surface at a rate 26 ft^2/gallon as required to obtain 60 mils minimum average thickness.

Reinforcement: Install CCW Reinforcement as quickly as possible, to the uncured Miraseal. Place reinforcement carefully to avoid wrinkles, overlap edges 0" to ½". Ensure that no air pockets or fish-mouths exist.

Top Coat: Top coat CCW Reinforcement with a second coat of Miraseal at a rate of 26 ft^2/gallon (60 mils) for 120 mil system.

Integrity Test: Required, and shall be performed in accordance with ASTM D 5957. Water maybe maintained for a period longer than 24 hours if required.

Inspection:	Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards and traffic surfacing. All defects observed shall be corrected.
Repairs:	In the event the Miraseal is damaged, clean the area with a cloth wet with weathered membrane cleaner and apply Miraseal to the damaged area.
Insulation:	Minimum 2" thick Insulfoam 40osi or 60 psi shall be adhered to the Miraseal using CCW-201 Polyurethane Adhesive applied in 3/8" wide beads spaced 4" o.c.
Surfacing:	Pavers (2' x 2' x 2" pre-manufactured concrete pavers; min. wt. 150 lbs/ft^3) shall be set on top of insulation and adhered using CCW-201 Polyurethane adhesive applied in 3/8" wide beads spaced 6" o.c. Pavers should then be carefully embedded in the adhesive and tapped in place to insure full solid bearing. Pavers edges shall be butted together. Pavers shall be installed in accordance with applicable Building Code.
Maximum Design Pressure:	-180 psf (See General Limitation #9) with 60 psi Insulfoam EPS -212.5 psf (See General Limitation #9) with 40 psi Insulfoam EPS

Deck Type 3	Concrete Decks
Deck Description:	Min. 2500 psi
System Type A(3):	Miraseal, Reinforced, Pavers

Substrate: New concrete shall be water cured and be in place for 3 days minimum, 7 days preferred. If curing agents are required, they must be 100% sodium silicate and be approved by Carlisle Coatings & Waterproofing Inc. Venting of the deck from the underside is recommended to facilitate drying.

Substrate Preparation: Surface shall be structurally sound, dry, and free of dust, dirt, laitance, non-approved curing agent or other contamination which may affect adhesion of the membrane. Remove splatters, fins, ridges or other projections to provide a level surface. Fill holes, honeycombs, rock pockets, spalls or other voids and indentations with approved concrete patching compound. Grind or fill surface at cold joints where each pour is at a different plane to provide a smooth and level surface.

Saw cut moving cracks greater than 1/16" wide to 1/4" X 1/4". Saw cut a 1/4" X 1/4" kerf around drain flanges. Mix CCW-201 Sealant and apply a 1-1/2" X 1-1/2", 45 degree sealant cant at the juncture of all vertical and horizontal surfaces including pipes and all other projections. Fill saw cut cracks and saw cuts around drain flanges. Install backer rod and sealant to all expansion joints. Allow the sealant to cure overnight.

Membrane Flashing: Apply a thin, even coat of Miraseal Membrane 4" – 6" wide (Stripe Coat). Stripe Coat shall be 45mils +/- 5 mils thick, centered over all cracks greater than $^{1}/_{16}$" wide and all moving cracks.

At the juncture of all vertical sections with the deck surface, such as parapet walls, columns and all projections through the deck, apply a stripe coat of Miraseal to the vertical wall section to the height of a minimum of 8", and 8" onto the deck. Flashing must terminate a minimum of 1" below top of wearing slab.

Base Coat: Apply Miraseal to the surface at a rate 26 ft^2/gallon as required to obtain 60 mils minimum average thickness .

Reinforcement: Install CCW Reinforcement as quickly as possible, to the uncured Miraseal. Place reinforcement carefully to avoid wrinkles, overlap edges 0" to ½". Ensure that no air pockets or fish-mouths exist.

Top Coat: Top coat CCW Reinforcement with a second coat of Miraseal at a rate of 26 ft^2/gallon (60 mils) for 120 mil system.

Integrity Test: Required, and shall be performed in accordance with ASTM D 5957. Water maybe maintained for a period longer than 24 hours if required.

Inspection: Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards and traffic surfacing. All defects observed shall be corrected.

Repairs: In the event the Miraseal is damaged, clean the area with a cloth wet with weathered membrane cleaner and apply Miraseal to the damaged area.

Surfacing: Pavers (2' x 2' x 2" pre-manufactured concrete pavers; min. wt. 150 lbs/ft^3) shall be set on top of the membrane in a minimum 1" thick mortar bed. Pavers should then be carefully embedded in the adhesive and tapped in place to insure full solid bearing. Pavers edges shall be butted together. Pavers shall be installed in accordance with applicable Building Code.

Maximum Design Pressure: -155 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. A copy of the integrity test report described herein in accordance with ASTM D5957 shall be provided to the Building Official for review at time of final inspection.
3. All work shall be performed by a Contractor licensed to do roofing/waterproofing work in Miami-Dade County. Contractor shall be familiar with the details and shall be approved by Carlisle Coatings & Waterproofing, Inc. Carlisle Coatings & Waterproofing, Inc., Liquid Membrane Systems shall be installed solely by approved applicators.
4. Contractor shall submit to the Building Official for review the system specifications and details. Submission of these documents, as well as the proper application and installation of all materials shall be the sole responsibility of the contractor.
5. A non–skid surfacing is required for all pedestrian areas, plaza decks or balconies.
6. Flashings shall be installed according to the manufacturers published standard details, specific details, approved by Carlisle Coatings & Waterproofing, Inc., shall be submitted to the Building Official for review.
7. Carlisle Coatings & Waterproofing, Inc., Liquid Membrane Systems shall not be exposed to the weather and shall be protected by a protection sheet or other approved protection method from traffic.
8. Carlisle Coatings & Waterproofing, Inc., Liquid Membrane Systems shall not be installed without consultation with Carlisle Coatings & Waterproofing, Inc., if ambient or surface temperature is below 40°F. Do not apply to wet or frozen concrete surface.
9. Carlisle Coatings & Waterproofing, Inc., Liquid Membrane Systems shall not be installed over lightweight insulating concrete.
10. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and the wind load requirements of applicable Building Code.
11. 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).
12. All approved products listed herein shall be labeled and shall bear the imprint or identifiable marking of the manufacturer's name or logo and following statement: "Miami–Dade County Product Control Approved" or the Miami–Dade County Product Control Seal as shown below:

MIAMI-DADE COUNTY APPROVED

13. 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