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.miamidade.gov/economy

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

NOTICE OF ACCEPTANCE (NOA)

Elastizell Corporation of America
P.O. Box 1462
Ann Arbor, MI 48106

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: Elastizell Lightweight Insulating Concrete Deck.

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 No. 18-0208.03 and consists of pages 1 through 12.
The submitted documentation was reviewed by Jorge L. Acebo.

ROOFING COMPONENT APPROVAL

Category:	Roofing
Sub-Category:	Lightweight Insulating Concrete
Materials:	Cellular, Hybrid
Maximum Design Pressure:	-542.5 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

Product	Dimensions	Test Specifications	Product Description
Elastizell JLE Foam Concentrate	various	ASTM C869	Foaming agent to produce pre-formed foam for use in lightweight cellular concrete.

TRADE NAMES OF PRODUCTS MANUFACTURED BY OTHERS:

Product	Dimensions	Test Specifications	Product Description	Manufacturer (with current NOA)
Portland Cement	Various	ASTM C150	Portland Cement	Generic
Vermiculite Aggregate	Various	ASTM C332	Vermiculite Aggregate	Generic
EPS Holey Board	2’ x 4’ x 1” or 4’ x 4’ x 1”	ASTM C578	Expanded polystyrene board with six holes per 8 sq. ft. and eight to eleven holes per 16 sq. ft. Top and bottom surfaces are smooth.	Generic

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Test Name/Report	Date
Florida Testing Engineering and Consulting	GL0811-01DN	TAS 114	11/10/08
Factory Mutual Research Corp.	J.I. 2Z9A6.AM	FM 4470/4454	11/06/96
	J.I. 0D3A3.AM	FM 4470/4454	04/04/97
IRT Consulting of S. Florida, Inc.	99027	TAS 114	09/30/99
	99028	TAS 114	09/30/99
	99029	TAS 114	09/30/99
	99030	TAS 114	09/30/99
	99033	TAS 114	09/30/99
	99034	TAS 114	09/30/99
	00001	TAS 114	03/30/00
Atlantic & Caribbean Roof Consulting, LLC	ACRC 03012	TAS 114	12/04/03
Trinity | ERD	4453.10.96-1	TAS 114	10/30/96
	2003.02.97-1	TAS 114	02/06/97
	2003-2.04.97-1	TAS 114	04/24/97
	3953-2.04.97-1	TAS 114	04/24/97
	4217.04.97-1	TAS 114	04/24/97
	4361-2.04.97-1	TAS 114	04/24/97
	4504.04.97-1	TAS 114	04/24/97
	4611.04.97-1	TAS 114	04/24/97
	01090.01.03-1	TAS 114	01/22/03
	E9490.03.08	TAS 114	03/25/08
	E45690.08.13-R1	TAS 114	08/23/13
PRI Construction Materials Technologies, LLC	2144T0001.2	ASTM C869	09/06/23

APPROVED APPLICATIONS:

Deck Type 1: Lightweight Insulating Concrete

System A: Cellular

Cast Density Range: 34 - 50 PCF

Dry Density Range: 27 - 40 PCF

28 Day Compressive Strength Range: 200 - 350 psi

Minimum Characteristic Resistance Force with Approved Fasteners:

Cure Time	MCRF (lbf)
2-4 days	46 lbf
15 Days	77 lbf
21 Days	112 lbf
28 Days	141 lbf

Components:

Portland Cement ASTM C 150:	94 lbs. bag
Foaming Agent ASTM C 869:	40:1 Water/Concentrate 3.0 ft³ pre-formed foam
Water (max chloride level 250 ppm):	5 gal./sack
Zell-Crete Fibers (optional):	1.8 lb./cubic yd.
Other Approved admixtures (optional):	see manufacturer's instructions

Wet and Dry Density Ranges Resulting from Range of Proportioned Ingredients						
			Proportions for a Cubic Yard			
Compressive Strength (psi)	Cast Density Range (pcf)	Dry Density Range (pcf)	Foam (ft^3)	Cement Range (lbs.)	Mixing Water Range (lbs.)	Minimum Thickness (inches)
200 - 249	32 - 40	22 - 30	19.70 - 17.70	590 - 730	267 - 350	2
250 - 350	42 - 50	32 - 40	17.70 - 15.60	730 - 870	350 - 432	2

Deck Type 1: Lightweight Insulating Concrete

System B: Cellular/Hybrid

Cast Density Range: 42-55 PCF

Dry Density Range: 30-44 PCF

28 Day Compressive Strength Range: 200-350 psi

Minimum Characteristic Resistance Force with Approved Fasteners:

Cure Time	MCRF (lbf)
3-5 days	40 lbf

Components:

Portland Cement ASTM C 150:	94 lbs. bag
Foaming Agent ASTM C 869:	40:1 Dilution (Water/Concentrate) 3.0 ft³ pre-formed foam
Water (max chloride level 250 ppm):	7-8 gal./sack
Vermiculite Aggregate ASTM C332	1-1.5 cubic feet/sack of cement
Zell-Crete Fibers (optional):	1-2 lbs./cubic yd.
Other Approved admixtures (optional):	see manufacturer's instructions

Wet and Dry Density Ranges Resulting from Range of Proportioned Ingredients

Compressive Strength (psi	Cast Density Range (pcf)	Dry Density Range (pcf)	Proportions for a Cubic Yard				
			Foam (ft^3)	Cement Range (lbs.)	Mix Water (gallons)	Vermiculite Aggregate (ft^3)	Minimum Thickness (inches)
200-249	42-48	32-38	19.70 - 17.70	600	48-54	8	2
250-+350	48-54	38-44	17.70 - 15.60	650	48-54	8	2

Deck Type 1: Lightweight Insulating Concrete

Application: Materials shall be mixed in a horizontal paddle drum mixer and pumped to the roof at the indicated density and in compliance with manufacturer's specifications. Cast densities shall be checked and recorded as it comes out of the hose at a minimum interval of one hour.

Polystyrene Insulation:

Minimum Density: 1.0 pcf
Minimum Dimension: 1"x 2'x 4'
Holes for keying: Minimum 6 holes at minimum 2-7/8" diameter per 8 sq. ft. or 8 to 11 holes at a minimum 2-7/8" diameter per 16 sq. ft. Boards may be flat corrugated or grooved. See Approved polystyrene noted in the Trade Names and Maximum Design Pressures Sections of this Notice of Acceptance.

Rigid insulation panels shall be placed in a minimum 1/8" slurry-coat of insulating concrete, while the material is still in a plastic state, and shall be covered with a minimum 2" topcoat cast within 24 hours of placement of the insulation panels.

The insulating concrete topcoat shall be screeded to a smooth finish surface free of ridges and at the proper thickness and slope prior to the installation of the roofing membrane. For steel deck applications, there shall be no traffic on the roof deck for 24 hours following installation of insulation.

SUBSTRATE REQUIREMENTS:

Note: Refer to Maximum Design Pressures Section of this Notice of Acceptance for specific substrate or substrate treatment requirements.

New Construction:

Steel:	Minimum 22 ga. galvanized G-90 attached to supports in compliance with applicable Building Code. *(See maximum design pressures for limitations on deck gauge.)*
Concrete:	Structurally designed in compliance with applicable Building Code.

Existing Construction:

Concrete:	Broom cleaned and free of any materials or covering that may impede bonding. Substrate shall be in compliance with applicable Building Code.
Gravel Surfaced BUR:	Loose gravel shall be removed, and adhesion of existing roof system shall be tested in compliance with Testing Application Standard TAS 124 to meet the design pressure requirements determined in compliance with applicable Building Code.
Smooth Surface BUR:	Adhesion of existing roof system shall be tested in compliance with TAS 124 to meet the design pressure requirements determined in compliance with applicable Building Code.
Granule Surface Cap:	Adhesion of existing roof system shall be tested in compliance with TAS 124 to meet the design pressure requirements determined in compliance with applicable Building Code.
Temporary Roofing:	Shall be installed in compliance with applicable Building Code.

Maximum Design Pressures:

Substructure	Admixtures (Top Coat)	Substrate Treatment	Min. Compressive Strength	Polystyrene Insulation Board	Maximum Design Pressure
NEW CONSTRUCTION					
Min. 22 ga., type B, grade D slotted steel deck welded to steel supports at every flute with 5/8" puddle welds. Deck side laps fastened with 3 self-tapping fasteners evenly divided within the 5 ft. spacing.	none	none	200 psi	(Optional) Minimum 2" thick & 1.0 pcf flat corrugated or grooved board.	45 psf.
Min. 20 ga., 1.5" type BV, G-90 steel deck welded to supports spaced max. 6'-3" o.c. with 5/8" puddle welds or Traxx/5 fasteners every flute. Deck side laps are fastened with #10 TEK screws at 18" o.c.	(Optional) Zell-Crete Fibers	none	min. 200 psi 2" thick Range II	Minimum 2" thick & 1.0 pcf flat corrugated or grooved board.	52.5 psf.
Min. 22 ga., 1.5" type B, Grade 33 steel deck welded to supports spaced max. 6' o.c. with 5/8" puddle welds or Traxx/5 fasteners every flute. Deck side laps are fastened with four self-tapping #10 TEK screws evenly divided within the 6 ft. spacing.	Zell-Crete Fibers	none	min. 250 psi	Minimum 1" thick & 1.0 pcf flat corrugated or grooved board.	52.5 psf.
Min. 22 ga., type B, grade 80 slotted steel deck welded to steel supports spaced 5' o.c. at every flute with 5/8" puddle welds or Traxx/5 fasteners. Deck side laps are fastened with 3 self-tapping fasteners evenly divided within the 5 ft. spacing.	none	none	200 psi cellular	(Optional) Minimum 1" thick & 1.0 pcf.	60 psf.
Min. 22 ga., 1.5" type BV, G-90 steel deck welded to supports spaced max 6' o.c. with 5/8" puddle welds or Traxx/5 fasteners every flute. Deck side laps are fastened with #10 TEK screws at 15" o.c.	none	none	Min. 250 psi 2" thick EVM Hybrid or min. 200 psi 2" thick Range II	Minimum 2" thick & 1.0 pcf flat corrugated or grooved board.	75 psf.
Min. 22 ga., Type B, Grade 33 vented steel deck attached to supports spaced max. 4' o.c. with Traxx/5 fasteners spaced 6" o.c. Deck side laps are fastened with Traxx/1 fasteners spaced 18" o.c.	Zell-Crete Fibers	none	min. 550 psi	(Optional) Minimum 1" thick EPS Holey Board	75 psf.

Substructure	Admixtures (Top Coat)	Substrate Treatment	Min. Compressive Strength	Polystyrene Insulation Board	Maximum Design Pressure
NEW CONSTRUCTION					
Min. 22 ga., 1.5" type BV, G-90 steel deck welded to supports spaced max. 6' o.c. with 5/8" puddle welds every flute. Deck side laps are fastened with #10 TEK screws at 18" o.c.	(Optional) Zell-Crete Fibers	none	min. 200 psi 2" thick Range II	Minimum 2" thick & 1.0 pcf flat corrugated or grooved board.	82.5 psf.
Min. 22 ga., 1.5" type B, Grade 33 steel deck welded to supports spaced max. 6' o.c. with 5/8" puddle welds or Traxx/5 fasteners every flute. Deck side laps are fastened with four self-tapping #10 TEK screws evenly divided within the 6 ft. spacing.	Zell-Crete Fibers	none	min. 250 psi	Minimum 1" thick & 1.0 pcf flat corrugated or grooved board.	90 psf.* *(Deck Only no roof cover)*
Min. 22 ga., Type B, Grade 33 vented steel deck attached to supports spaced max. 4' o.c. with Traxx/5 fasteners spaced 6" o.c. Deck side laps are fastened with Traxx/1 fasteners spaced 18" o.c.	Zell-Crete Fibers	none	min. 550 psi	none	90 psf.
Min. 22 ga., 1.5" type BV, G-90 steel deck welded to supports spaced max. 5' o.c. with 5/8" puddle welds every flute. Deck side laps are fastened with #10 TEK screws at 15" o.c.	(Optional) Zell-Crete Fibers	none	min. 250 psi 2" thick Range II	Minimum 1" thick & 1.0 pcf flat corrugated or grooved board.	97.5 psf.
Min. 22 ga., 1.5" type BV, G-90 steel deck welded to supports spaced max. 6' o.c. with 5/8" puddle welds every flute. Deck side laps are fastened with #14 TEK screws at 6" o.c.	Zell-Crete Fibers	none	min. 200 psi 2" thick Range II	(Optional) Minimum 2" " thick & 1.0 pcf.	105 psf.
Min. 22 ga., Type B, Grade 33 vented steel deck attached to supports spaced max. 6' o.c. with Traxx/5 fasteners spaced 6" o.c. Deck side laps are fastened with Traxx/1 fasteners spaced 18" o.c.	Zell-Crete Fibers	none	min. 700 psi	Minimum 1" thick EPS Holey Board	105 psf.
Min. 22 ga., 1.5" type BV, G-90 steel deck welded to supports spaced max. 5' o.c. with 5/8" puddle welds every flute. Deck side laps are fastened with #10 TEK screws at 15" o.c.	(Optional) Zell-Crete Fibers	none	min. 250 psi 3" thick Range II	Minimum 2" " thick & 1.0 pcf.	112.5 psf.

Substructure	Admixtures (Top Coat)	Substrate Treatment	Min. Compressive Strength	Polystyrene Insulation Board	Maximum Design Pressure
NEW CONSTRUCTION					
Min. 26 ga., 1.5" type BV, G-90 steel deck welded to supports spaced max. 5' o.c. with 5/8" puddle welds or Traxx/5 fasteners every flute. Deck side laps are fastened with 3 #10 TEK screws evenly divided within the 5 ft. purlin spacing.	Zell-Crete Fibers	none	min. 350 psi 2" thick Cellular/ Hybrid	Minimum 1" thick & 1.0 pcf flat corrugated or grooved board.	112.5 psf.

Substructure	Admixtures (Top Coat)	Substrate Treatment	Min. Compressive Strength	Polystyrene Insulation Board	Maximum Design Pressure
NEW CONSTRUCTION OR REROOF (TEAR-OFF)					
Structural concrete deck	none	none	min. 450 psi	(Optional) Minimum 1" thick EPS Holey Board	145 psf.
Structural concrete deck	none	none	min. 250 psi	(Optional) Minimum 1" thick & 1.0 pcf flat corrugated or grooved board.	205 psf.
Structural concrete deck	none	none	min. 200 psi	(Optional) Minimum 1" thick & 1.0 pcf flat corrugated or grooved board.	240 psf.
Structural concrete deck	none	none	min. 450 psi	(Optional) Minimum 1" thick & 1.0 pcf flat corrugated or grooved board.	240 psf.
Structural concrete deck	none	ASTM D41 primed followed by torch applied ASTM D6163; Grade G modified bitumen dry in sheet.	min. 450 psi	(Optional) Minimum 1" thick & 1.0 pcf flat corrugated or grooved board.	240 psf.
Structural concrete deck	none	ASTM D41 primed followed by torch applied ASTM D6162, D6163, or D6164; Grade G modified bitumen dry in sheet.	min. 300 psi	none	302.5 psf.
Structural concrete deck	none	none	min. 300 psi	none	542.5 psf.
Structural concrete deck	none	none	min. 450 psi	none	542.5 psf.

Substructure	Admixtures (Top Coat)	Substrate Treatment	Min. Compressive Strength	Polystyrene Insulation Board	Maximum Design Pressure
NEW CONSTRUCTION OR REROOF (TEAR-OFF)					
RECOVER					
Existing structural concrete deck with existing asphaltic BUR roof cover	none	none	min. 200 psi	(Optional) Minimum 1" thick & 1.0 pcf flat corrugated or grooved board.	112 psf.
Existing structural concrete deck with existing asphaltic BUR roof cover	none	none	min. 250 psi	(Optional) Minimum 1" thick & 1.0 pcf flat corrugated or grooved board.	342 psf.
Existing structural concrete deck with existing asphaltic smooth BUR roof cover	none	none	min. 250 psi	(Optional) Minimum 1" thick & 1.0 pcf flat corrugated or grooved board.	367.5 psf.

Note: Maximum Design Pressures noted herein shall be used in conjunction with those maximum design pressures published in the Roof System Assembly Notice of Acceptance for Approved Systems over lightweight concrete decks.

GENERAL LIMITATIONS:

1. Any excess water on the lightweight concrete shall be removed prior to roof installation.
2. Applicator shall maintain a job log and make it available to the Building Official upon request. The job log shall contain cast densities recordings taken at a minimum interval of one-hour.
    a. Cast densities shall be measured with calibrated scale accurate from 1 to 50 lbs. The scale shall display weight in increments of ¼ lb. and be accurately calibrated to 1/16 lb.
    b. The measuring bucket shall be of 5 quarts or larger
3. Lightweight insulating concrete installation shall demonstrate its suitability to perform as a satisfactory substrate during "walkability inspection". If the deck or a portion of the deck is determined to be out of compliance, the Building Official may call for further testing (if applicable for the roof system) to confirm fastener spacing or provide data for the roof system manufacturer to calculate a new fastener pattern. Fastener testing (if applicable for the roof system) shall be required. Any areas where fasteners will not hold a minimum 40 lbf. after 5 days of cure shall be removed and recast.
4. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value as calculated in conjunction with the maximum design value listed within specific roof membrane manufacturer's NOA. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117. If continued noncompliance is observed and the roof deck and associated roof system cannot be corrected based on additional testing and attachment calculations, the Building Official may call for the removal of all or portions of the deck.
5. Roofing contractor shall consult with roofing system manufacturer for compatibility with all surface coatings or treatments listed in this NOA.
6. Direct-adhered single ply systems shall be installed in strict compliance with membrane manufacturer's specifications and roof assembly manufacturer NOA.
7. Maximum Design Pressures noted in this NOA shall be used in conjunction with the maximum design pressures published in the Roof Assembly Product Control Notice of Acceptance for Approved Systems over lightweight concrete decks.
8. All coatings or surface preparation materials applied to the lightweight insulating concrete shall be listed as an approved interface material with the roof assembly manufacturer.
9. A slurry coat lightweight insulating concrete shall be applied with insulation boards immediately adhered in the minimum 1/8" slurry coat. Slurry coat and insulation boards shall be left undisturbed to cure overnight before the application of the topcoat. If installation is interrupted due to inclement weather or other situations beyond the control of the contractor, the installed insulation board shall be inspected to confirm adhesion to the substrate. Over solid substrates, topping installation shall not be delayed over 24 hours.
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