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)

Liquid Plastics, Inc.
79 Bradley Street
Middletown, CT 06457

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 Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Liquid Plastic Decothane SP Systems over Steel 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 consists of pages 1 through 5.
The submitted documentation was reviewed by Jorge L Acebo

MIAMI-DADE COUNTY APPROVED

NOA No.: 08-1114.10
Expiration Date: 02/04/14
Approval Date: 02/04/09

ROOFING ASSEMBLY APPROVAL

Category: Roofing
Sub-Category: Liquid Applied Roof Systems
Deck Type: Steel
Maximum Pressure -67.5 psf

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

Product	Dimensions	Test Specification	Product Description
Decothane SP	5 gal.	ASTM D 6083	A single component, moisture triggered; aliphatic polyurethane elastomeric coating Used as a UV stable top coat which is available in a variety of colors.
Decothane EC	5 gal.	Proprietary	An Elastomeric high-build single-pack polyurethane compound used as an embedment coat.
Reemat Premium	51" x 525' Roll	Proprietary	A random woven fiberglass reinforcement nylon scrim which is capable of stretching within the membrane to accommodate a high degree of thermal and structural movement.
Decoply Base Membrane	39¾" x 67' Roll	Proprietary	A Asphalt base sheet with fiberglass reinforcement.
Decostik Adhesive	3.2 gal.	Proprietary	A two pack, solvent-free polyurethane adhesive used in construction of a cold applied roofing system.
High Performance Coating Membranes Bonding Primer	5 gal.	Proprietary	Water- based primer.
Vapour Control Layer	39" x 65.6' Roll	Proprietary	A composite membrane comprising asphalt saturated hessian reinforcement applied to a 50 micron thick layer of aluminum foil with a lightly sanded surface.
Carrier membrane	39" x 65.6' Roll	Proprietary	A fiberglass reinforced, modified bitumen elastomeric coated membrane with a sand surfacing.
Epoxy Primer	1 gal.	Proprietary	A robust, universal primer.
Damp Tolerant Epoxy Primer	1 gal.	Proprietary	Epoxy Primer made for damp substrates.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ACFoam III	Polyisocyanurate foam insulation	Atlas Energy Products
Decotherm Insulation	Polyisocyanurate insulation	Liquid Plastics
Dens Deck Prime	Fire resistant board, glass mat facings on front and back.	G-P Gypsum Corp

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	OMG #12 Standard Roofgrip Fastener	Wood and steel roofing insulation fastener	1 5/8" to 8"	OMG
2.	OMG 3" Galvalume Steel Plates	Fastener insulation plate	3" diameter	OMG

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Test Specification	Date
Factory Mutual Research Corp.	2B4A4AM	FM 4470	07/08/1997
	3029117	FM 4470	04/30/2008
	3029625	ASTM E 108	07/30/2007
PRI Construction Materials Technologies	PRI08089	ASTM D6083	10/22/2008

APPROVED ASSEMBLIES:

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 gauge, ASTM A653SS, Grade 80, Type B steel deck deck is secured to supports spaced 6 ft. o.c. with Traxx/5 fasteners spaced 6" o.c. (two fasteners installed at each bearing attachment point) and Traxx/1 fasteners 12" o.c. at the side laps.

System Type B: Base layer of insulation mechanically atttached, top layer adhered with approved adhesive.

All General and System Limitations apply.

Base Insulation Layer	**Insulation Fasteners**	**Fastener Density/ft^2**
Dens Deck Prime Minimum ¼" thick	**1,2**	**1:1**

Top Insulation Layer	**Insulation Fasteners**	**Fastener Density/ft^2**
Decotherm Minimum 2" thick	**N/A**	**N/A**

Note: Base insulation shall be mechanically fastened prime side down; see base layer for fasteners and density. Top insulation layer shall be adhered using Decostik Insulation Adhesive at a rate of 2.5 gal/square (1.0 L/m^2) to the vapor barrier. 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.

Vapor Barrier Apply Vapour Control Layer adhered to Dens Deck insulation layer with Decostik Adhesive at a rate of 2.5 gal/square (1.0 L/m^2).

Base Sheet: One ply of Carrier membrane adhered to the prepared top insulation layer with Decostik Adhesive applied at a rate of 2.5 gal/square (0.82 L/m^2).

Base Coat: Apply an embedment coat of Decothane SP at a rate of 2.5 gal/square (1.0 L/m^2) to the prepared area. Reemat Premium is applied directly into the wet embedment coat.

Intermediate Coat: An intermediate coat of Decothane SP is aplied at a rate of 1.88 to 2.5 gal/square (0.75 to 1.0 L/m^2).

Top Coat: A top coat of Decothane SP is applied at a rate of 1.88 to 2.5 gal/square (0.75 to 1.0 L/m^2).

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

STEEL DECK SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117; calculations shall be signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.
3. A non-skid surfacing is required for all pedestrian areas, plaza decks or balconies.

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 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.
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. 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 approved products listed herein shall be labeled in compliance with TAS 121 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

END OF THIS ACCEPTANCE