

#### DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION NOTICE OF ACCEPTANCE (NOA)

Durapax LLC 400 Old Reading Pike, Suite 304 Pottstown, PA 19464

#### 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:** Durapax Coal Tar 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 6.

The submitted documentation was reviewed by Jorge L. Acebo.



for the

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## **ROOFING SYSTEM APPROVAL**

<u>Category:</u>	Roofing
<u>Sub-Category:</u>	Built-Up Roofing
<u>Material:</u>	Fiberglass/Asphalt
<u>Deck Type:</u>	Steel
<u>Maximum Design Pressure:</u>	-60 psf.

### TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: Table 1

Product	Dimensions	Test Specification	Product Description
Durapax Glass Fiber Base Sheet	324sq. ft.	ASTM D4601 Type II	Asphalt coated, glass fiber mat for use as a base sheet in built-up roof systems
Durapax TC Glass Fiber Felt	540 sq. ft.; roll	ASTM D4990	Glass fiber coal tar coated ply sheet for use in conventional built-up roof systems.
Durapax Tarred Felt	432 sq. ft.; roll weight: 60 lbs.	ASTM D227	Organic fiber sheet saturated with coal tar for use in coal tar built-up roof systems.
Durapax Coal Tar Roofing Pitch		ASTM D450 Type I	Coal tar adhesive used in modified and conventional built-up roofing applications.

## **APPROVED INSULATIONS:**

#### TABLE 2

Product Name	<b>Product Description</b>	Manufacturer (With Current NOA)
ENRGY 3	Polyisocyanurate foam insulation	Johns Manville
Structodek <sup>®</sup> High Density Fiberboard	High density fiber board	Blue Ridge Fiberboard, Inc.
SECUROCK Gypsum-Fiber Roof Board	Gypsum coverboard	United States Gypsum Corporation

## **APPROVED FASTENERS:**

#### TABLE 3

Fastener Number	Product	Descriptions	Dimensions	Manufacturer (With current NOA)
1.	#15 Roofgrip	#3 Phillips head Insulation fastener.	#15 x 14" Max length.	OMG, Inc.
2.	3 in. Round Metal Plate	3" round galvalume AZ50 steel stress plate.	3" round	OMG, Inc.



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## **EVIDENCE SUBMITTED:**

Test Agency	<u>Test Identifier</u>	<b>Description</b>	Date
FM Approvals	3029063	Class 4470	5/22/07
Atlantic and Caribbean Roofing Consulting LLC	ACRC 19-006 R-1	TAS-114-J	04/22/20
	ACRC 19-004	TAS-114-D	09/17/19
	ACRC 19-005	TAS-114-D	09/17/19
PRI Construction Materials Technologies LLC	1257T0001	ASTM D450	12/04/19
	1257T0002	ASTM D4990	12/06/19
	1257T0004	ASTM D227	12/06/19
	1257T0003	ASTM D4601	12/06/19

# **DECK STRESS ANALYSIS CALCULATIONS/REPORTS**

<b>Engineer/Agency</b>	<u>Identifier</u>	<b>Assemblies</b>	Date
Randal Fowler, P.E.	Signed/Sealed	В	07/01/20
	Calculations		



## **APPROVED ASSEMBLIES:**

Membrane Type:	BUR
Deck Type 2I:	Steel, Insulated
Deck Description:	Minimum 22 Gage, Corrugated 1.5", WR Type B, G90 steel deck, Grade 33 secured to minimum 1/4" thick structural supports spaced at maximum 6 ft. o.c. with 5/8" puddle welds spaced at 6" (one per flute) along the center of the supports. Deck side laps are secured with #12 SD fasteners spaced at maximum 12" o.c. <b>This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.</b>
System Type B:	Base layer of insulation mechanically fastened, top layer adhered with approved

asphalt or coal tar pitch. Roof membranes are subsequently fully adhered.

#### All General and System Limitations apply.

One or more layers of any of the following insulations: Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup> ENRGY 3

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Minimum 1.5" t	hick		1 and 2	1:1.33 ft <sup>2</sup>
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Note: Base layers of insulation shall be mechanically attached into the steel deck using the fastener density listed. The 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.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
Structodek <sup>®</sup> High Density Fiberboard Minimum ½" thick	N/A	N/A
SECUROCK Gypsum-Fiber Roof Board Minimum ½" thick	N/A	N/A

Note: Top layers of insulation shall be adhered in full mopping of approved hot asphalt or coal tar pitch within the EVT range and at a rate of 20-40 lbs./100 ft<sup>2</sup> onto base layer of insulation. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as the base layer shall only be used as the base layer with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet:	One ply of Durapax Glass Fiber Base Sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. onto the top layer of insulation.
Ply Sheet:	Two or more plies of Durapax Tarred Felt adhered in a full mopping of hot Durapax Coal Tar Roofing Pitch applied at not less than 20 lbs./sq.
Cap Sheet:	One or more plies of Durapax TC Glass Fiber adhered in a full mopping of hot Durapax Coal Tar Roofing Pitch applied at not less than 20 lbs./sq.



Surfacing:	Flood Coat of hot Durapax Coal Tar Roofing Pitch at an application rate of 70 lbs./sq.; plus gravel or slag at application rates of 400 and 300 lbs./ sq., respectively. Or Any approved coating listed for use with Coal Tar Roofing Pitch BUR in a current Miami-Dade NOA approval.
Maximum Design Pressure:	-60 psf. (See General Limitation #7.)



## **STEEL SYSTEM LIMITATIONS:**

- 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 and/or RAS 137, 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.

## **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 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.) All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform

- 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.)
- 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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