



**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)

**W.P. Hickman Systems, Inc.
30700 Solon Industrial Parkway
Solon, OH 44139**

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 the BCCO and accepted by the Building Code and Product Review Committee 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 BCCO (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. BCCO reserves the right to revoke this acceptance, if it is determined by BCCO 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 South Florida Building Code, 1994 Edition for Miami-Dade County or Florida Building Code.

DESCRIPTION: APP Modified Bitumen over LWC

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 8.
The submitted documentation was reviewed by Frank Zuloaga, RRC



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Expiration Date: 12/27/06
Approval Date: 12/27/01
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ROOFING ASSEMBLY APPROVAL

Category:	Roofing
Sub-Category:	SBS/APP/TPO, Modified Bitumen
Deck Type:	Lightweight Insulating Concrete
Maximum Design Pressure	-45 psf
Fire Classification:	See General Limitation #1

Table 1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Pika Ply SA-3	32' 10" x 3' 3-3/8"	ASTM D 6222	Torch applied, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a smooth or sanded top surface.
Pika Ply SA-4	32' 10" x 3' 3-3/8"	ASTM D 6222	Torch applied, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a smooth or sanded top surface.
Pika Ply MA-4	32' 10" x 3' 3-3/8"	ASTM D 6222	Torch applied, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a granule top surface
Pika Ply Premium MA-4	32' 10" x 3' 3-3/8"	ASTM D 6222	Torch applied, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a smooth or sanded top surface and fire retardant chemistry.
Multi Ply Glass CL	36" x 72'	ASTM D 2178	Tri-Laminated polyester / glass / polyester mat coated with asphalt
Multi Ply Glass	36" x 72'	ASTM D 2178	Fiberglass sheet coated with asphalt
HK Glass Ply	36" x 180'	ASTM D 2178 Type IV	Type IV fiberglass base and/or ply sheet
Premium Ply	36" x 180'	ASTM D 2178 Type VI	Type VI fiberglass ply sheet

TABLE 2

TRADE NAMES OF PRODUCTS MANUFACTURED BY OTHERS

<u>Product</u>	<u>Product Description</u>	<u>Manufactured (with current NOA)</u>
ACFoam II	Polyisocyanurate foam insulation	Atlas Roofing Corp.
Armor Board Regular Fiberboard	Wood fiber insulation board	Honeywell International, Inc.
Armor Board High Density Fiberboard	Wood fiber insulation board	Honeywell International, Inc.
Standard or Wide Flute Armor R Glass	Glass fiber Insulation board	Honeywell International, Inc.
ConPerl	Expanded perlite mineral fiber	Conglas
Esgard Fiberboard Roof Insulator	Regular or asphalt coated wood fiber insulation board	EMCO Ltd.



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<u>Product</u>	<u>Product Description</u>	<u>Manufactured (with current NOA)</u>
Standard or Wide Flute Fiberglass Roof Insulation Fesco Board Fiber Base HD1	Glass fiber Insulation board	Johns Manville Corp.
Fiber Base HD6	Expanded perlite mineral fiber Asphalt emulsion coated wood fiber insulation board	Johns Manville Corp. Temple Inland Forest Products Corp.
GAFTEMP Fiberboard GAFTEMP High Density Fiberboard GAFTEMP Permalite	Asphalt emulsion coated wood fiber insulation board Wood fiber insulation board Wood fiber insulation board	Temple Inland Forest Products Corp. GAF Materials Corp. GAF Materials Corp.
H-Shield H-Shield P Tapered H-Shield High Density Fiberboard, Traffic Top Fiberboard Celotherm Fiberboard Fiberboard Flat Top Hy-Therm AP Roof Insulation Hy-Therm(a) AP Roof Insulation High Density Roof Fiberboard	Expanded mineral fiber insulation board Polyisocyanurate foam insulation Polyisocyanurate foam insulation Polyisocyanurate foam insulation Wood fiber insulation board Perlite insulation board Wood fiber insulation board Wood fiber insulation board Polyisocyanurate foam insulation Polyisocyanurate foam insulation Asphalt coated wood fiber insulation board	GAF Materials Corp. Hunter Panels LLC. Hunter Panels LLC. Hunter Panels LLC. The Celotex Corp. The Celotex Corp. The Celotex Corp. The Celotex Corp. The Celotex Corp. The Celotex Corp. The Celotex Corp. Georgia Pacific Corp.
Huebert Fiberboard Kop-R Wood Fiber Multi-Max FA Thermarroof Composite	Wood fiber insulation board Polyisocyanurate foam insulation Polyisocyanurate foam insulation Polyisocyanurate foam insulation, Top; perlite, ½ in. (13mm), bottom Expanded perlite insulation board	Huebert Fireboard, Inc. Koppers Industries, Inc. Rmax, Inc. Rmax, Inc.
Permalite		Building Materials Corp of America
Structodeck	Wood fiber insulation board	Masonite

EVIDENCE SUBMITTED:

<u>Test Agency/Identifier</u>	<u>Report No.</u>	<u>Date</u>
Factory Mutual Research Corporation	J.I. 2W7A7.AM J.I. 3001334 J.I. 3000857 J.I. 3004091	08.04.94 02.15.00 01.12.00 01.12.00
Exterior Research & Design, LLC.	#11752.09.99-1	02.08.00



APPROVED ASSEMBLIES:

Deck Type 4I: Lightweight Concrete, Insulated, New Construction

Deck Description: Miami-Dade Approved Cellular Lightweight Concrete

System Type A: Anchor sheet mechanically fastened; one or more layers of insulation fully adhered with approved asphalt.

All General and System Limitations apply.

Anchor Sheet: One ply of Multi-Ply Glass CL or Multi-Ply Glass fastened to the deck as described below:

Fastening: Attach anchor sheet using ITW Buildex Lite Weight Concrete Fasteners spaced 7" o.c. in a 4" lap and 7" o.c. in two equally spaced staggered rows in the center of the sheet.

<u>Insulation (Optional) Base Layer</u>	<u>Fastener Density ft²</u>	<u>Fastener Type</u>
One or more layers of the following:		

ACFoam II, Hy-Therm AP Roof Insulation, Hy-Therm(a) AP Roof Insulation, Multi-Max FA, H-Shield, Tapered H-Shield Minimum: 1.5" thick	N/A	N/A
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<u>Insulation Top Layer</u>	<u>Fastener Density ft²</u>	<u>Fastener Type</u>
One or more layers of the following:		

Fiberbond Minimum: 5/8" thick	N/A	N/A
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Armor Board Regular Fiberboard, Armor Board High Density Fiberboard, Esgard Fiberboard Roof Insulator, Fiberboard, High Density Fiberboard, Traffic Top Fiberboard, High Density Roof Fiberboard, GAFTEMP Fiberboard, GAFTEMP High Density Fiberboard, Huebert Fiberboard, Kop-R Wood Fiber, Fiber Base HD1, Fiber Base HD6, Structodek Minimum: 1/2" thick	N/A	N/A
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Celotherm, ConPerl, GAFTEMP Permalite, Permalite or Fesco Board Minimum: 3/4" thick	N/A	N/A
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Thermarroof Composite Minimum: 1.5" thick	N/A	N/A
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Note: All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to RAS No. 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate face down



- Base Sheet:** (Optional if using 1 to 3 plies of ply sheet noted below) One ply of Multi-Ply Glass CL or Multi-Ply Glass adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Ply Sheet:** (Optional) One ply of Multi-Ply Glass CL or Multi-Ply Glass or one to three plies of HK Glass Ply or Premium Ply adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Membrane:** One ply of Pika Ply SA-3, Pika Ply SA-4, Pika Ply Ma-4 or Pika Ply Premium MA-4 torch applied
- Surfacing:** (Optional) Install one of the following to obtain required fire classification.
1. Gravel or slag at 400 lbs./sq. or 300 lbs./sq., respectively, in a flood coat of approved asphalt at 60 lbs./sq.
 2. Karnak 97 Fibrated Aluminum Asphalt Roof Coating or Asbestos Free Aluminum Roof Coating at 1½ gal/sq.
 3. Kokem Products Sunguard Acrylic Roof Coating at 1 gal/sq.
 4. Monsey Endure Aluminum Roof Coating, Weather Check or Pro-Grade Aluminum Roof Coating at 1½ gal/sq.
 5. Grundy al MB Aluminum Roof Coating at 1-2 gal/sq.
 6. Fields F350 Heat Shield Aluminum Coating or F630 Heat Shield Fibered Aluminum Coating at 1½ gal/sq.

Maximum Design Pressure: -45 psf; (See general limitation #7.)



Deck Type 4: Lightweight Concrete, Non insulated, New Construction

Deck Description: Miami-Dade Approved Cellular Lightweight Concrete

System Type E (1): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of Multi-Ply Glass CL or Multi-Ply Glass fastened to the deck as described below:

Fastening: Attach base sheet using ITW Buildex Lite Weight Concrete Fasteners spaced 7" o.c. in a 4" lap and 7" o.c. in two equally spaced staggered rows in the center of the sheet.

Ply Sheet: (Optional) One ply of Multi-Ply Glass CL or Multi-Ply Glass or one to three plies of HK Glass Ply or Premium Ply adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of Pika Ply SA-3, Pika Ply SA-4, Pika Ply MA-4 or Pika Ply Premium MA-4 torch

Surfacing: (Optional) Install one of the following to obtain required fire classification

1. Gravel or slag at 400 lbs./sq. or 300 lbs./sq., respectively, in a flood coat of approved asphalt at 60 lbs./sq.
2. Karnak 97 Fibrated Aluminum Asphalt Roof Coating or Asbestos Free Aluminum Roof Coating at 1½ gal/sq.
3. Kokem Products Sunguard Acrylic Roof Coating at 1 gal/sq.
4. Monsey Endure Aluminum Roof Coating, Weather Check or Pro-Grade Aluminum Roof Coating at 1½ gal/sq.
5. Grundy al MB Aluminum Roof Coating at 1-2 gal/sq.
6. Fields F350 Heat Shield Aluminum Coating or F630 Heat Shield Fibered Aluminum Coating at 1½ gal/sq.

Maximum Design Pressure: -45 psf; (See General Limitation #7.)



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LIGHTWEIGHT INSULATING CONCRETE 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 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 Professional Engineer, Registered 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. For systems where specific lightweight insulating concrete is not referenced, the minimum design mix shall be a minimum of 250 psi.



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 TAS No. 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 or Architect may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Miami-Dade TAS No. 105 and calculations in compliance with Miami-Dade RAS No. 117.
- 7 Perimeter and corner areas shall comply with the enhanced uplift pressure of these areas, as calculated in compliance with Chapter 23 of the South Florida Building Code. Fastener densities shall be increase for both insulation and base sheet as calculated in compliance with Miami-Dade RAS No. 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 Miami-Dade RAS No. 111 and the wind load requirements of Chapter 23 of the South Florida Building Code.
- 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.)**

END OF THIS ACCEPTANCE



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