



**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: Modified Bitumen over Recover

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 11.
The submitted documentation was reviewed by Frank Zuloaga, RRC.



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ROOFING SYSTEM APPROVAL:

Category:	Roofing
Sub-Category:	SBS Modified Bitumen
Deck Type:	Recover
Maximum Design Pressure	-237.5 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>
Multi-Ply Glass CL	36" x 72'	ASTM D 4601	Tri-laminated polyester / glass / polyester mat coated with asphalt.
Multi-Ply Glass	36" x 72'	ASTM D 4601	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.
Performance Ply	36" x 72'	Proprietary	Polyester reinforced asphalt saturated ply sheet
Weather Ply	36" x 72'	Proprietary	Polyester reinforced asphalt saturated ply sheet
Performance Ply FR Mineral	39" x 32.8"	ASTM D 6164	Polyester reinforced, fire retardant, mineral surfaced cap sheet
Weather Ply FR Mineral	39" x 32.8"	ASTM D 6164	Polyester reinforced, fire retardant, mineral surfaced cap sheet
Pika Ply 808 MSFR	39" x 32.8"	ASTM D 6162	SBS modified, composite reinforced, mineral surfaced, fire resistant cap sheet.
Pika Ply 808 SS	39" x 32.8'	ASTM D 6162	SBS modified, composite reinforced, smooth surfaced ply or cap sheet.
Duoflex S FR	39 x 32.8'	ASTM D 6223	APP/APO modified, composite reinforced, smooth surfaced, ply or cap sheet.
Duoflex G FR	39' x 32.8"	ASTM D 6223	APP/APO modified, composite reinforced, granule surfaced, fire resistant cap sheet.
Pika Ply Supreme FR	39" x 32.8'	ASTM D 6162	SBS/SIS/ES, composite reinforced, granule surfaced ply or cap sheet\
Weather Ply MA FR	39" x 32.8'	ASTM D 6222	APP/APO, polyester reinforced, granule surfaced, fire resistant cap sheet
BUR Plus™ 101	Kegs	ASTM D 312	Approved Type III Asphalt.
BUR Plus™ 102	Kegs	ASTM D 312	Approved Type III Asphalt.
BUR Plus™ 200	Kegs	ASTM D 312	Approved modified SEBS asphalt.
BUR Plus™ 201	Kegs	ASTM D 312	Approved modified SEBS asphalt.
BUR Plus™ 202	60 lb. Kegs	ASTM D 412	Approved polymer modified asphalt.
BUR Plus™ 303	40 lb. boxes	ASTM D 6152	Approved modified SEBS asphalt.
BUR Plus™ 404	40 lb. boxes	ASTM D 6152	Approved modified SEBS asphalt.
BUR Plus™ 505	52 lb. boxes	ASTM D 450	Approved, polymer modified coal tar pitch adhesive.



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<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
BUR Plus™ 606	40 lbs. boxes	proprietary	Approved, modified SEBS asphalt.
BUR Plus Polyester Ply	39" x 333'	ASTM D 5726	A 170 g/m ² uncoated polyester ply sheet
Multi-Ply Adhesive	5, 55 gallon pails	proprietary	Asphalt based, asbestos free SEBS adhesive.

TABLE 2

APPROVED FASTENERS

<u>PRODUCT NAME</u>	<u>PRODUCT DESCRIPTION</u>	<u>DIMENSIONS</u>	<u>MANUFACTURER</u>
Isofast IG (Wood Deck with IF/IG Plates)	Coated Carbon with hex head	#14; 2-11.8 in long	SFS Stadler, Inc. (with current NOA)
Olympic Standard (Steel Deck with 3" plates)	Insulation fastener	Various	Olympic Fastener (with current NOA)
Olympic CR-10 or HD (Concrete Deck with 3" plates)	Carbon Steel, CR-10 or Answer coating (black)	Various	Olympic Fastener (with current NOA)

<u>Test Agency/Identifier</u>	<u>Report No.</u>	<u>Date</u>
Factory Mutual Research Corporation	J.I. 4D9A5.AM (weatherply)	12/31/98
	J.I. 3007285 (bur plus 200 & 201)	05/16/00
	J.I. 0B3A9.AM (performance ply)	08/05/97
	J.I. 1D7A4.AM (concrecel)	
	J.I. 3007285 (BUR Plus 200 and 201)	05/16/00
Structural Research, Inc. Exterior Research & Design, LLC.	October 19, 2000 (Pika Ply Supreme FR)	10/19/00
	#4474.11.97-1	11/30/97
	#4474.07.98-1	07/28/98
	#4473.10.97-1	10/30/97
	#4472.03.96-1	03/30/96
	#4470.05.95-1	05/30/95



SYSTEMS:

Deck Type 7I: Recover

Deck Description: Lightweight Concrete

System Type A (1): Anchor sheet mechanically fastened; one or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

Anchor Sheet:

One ply of Multi-Ply Glass CL, Multi-Ply Glass, Performance Ply or Pika Ply SS-2 fastened to the deck as described below.

Fastening#1:

Fasten anchor sheet with ES Products FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners spaced 7" o.c. at a 4" side lap and 7" o.c. in two staggered rows in the center of the sheet.

Fastening#2:

Fasten anchor sheet (excluding Multi-Ply Glass and inverted Hickman Premium Cap) with Simplex Base-Lok Fasteners or SFS Stadler Base-Lok Fasteners spaced 10" o.c. at a 4" side lap and 10" o.c. in two staggered rows in the center of the sheet.

Note: Anchor sheet fasteners shall be tested for withdrawal resistance in compliance with TAS 105 to confirm compliance with the windload requirements of applicable building code.

<u>Insulation Base Layer</u>	<u>Fastener Density ft²</u>	<u>Fastener Type</u>
one or more layers of any of the following insulations under those listed as Top Layer: E'NRG'Y-2 Minimum: 1.5" thick	N/A	N/A
<u>Insulation Top Layer</u>	<u>Fastener Density ft²</u>	<u>Fastener Type</u>
one or more layers of any of the following insulations High Density Wood Fiberboard Minimum: 1/2" thick	N/A	N/A
Dens-Deck Minimum: 1/4" thick	N/A	N/A
Fesco Board Minimum: 3/4" thick	N/A	N/A

Note: All insulation shall be adhered to the anchor sheet in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100ft². Please refer to RAS 117 for insulation attachment. Insulations 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 ply sheet used) One ply of Multi-Ply Glass CL, Multi-Ply Glass, BUR Plus Polyester Ply, Performance Ply, Pika Ply SS-2 or Weather Ply adhered to the top layer of the insulated substrate with a full mopping of BUR Plus 101, 102, 200, 201, 202, 303, 404, 606, Type III, Type IV or other approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.



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Ply Sheet: (Optional if base sheet used) One or two plies of Performance Ply, Pika Ply SS-2, BUR Plus Polyester Ply, Weather Ply, Premium Ply or HK Glass Ply adhered with a full mopping of BUR Plus 101, 102, 200, 201, 202, 303, 404, 606, Type III, Type IV or other approved asphalt within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of Performance Ply FR Mineral, Weather Ply FR Mineral, Pika Ply 808 MSFR, Pika Ply 808 SS, Pika Ply Supreme FR, Weather Ply MA FR, Duoflex G FR or Duoflex S FR adhered with a full mopping of BUR Plus 101, 102, 200, 201, 202, 303, 404, 606, Type III, Type IV or other approved asphalt within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: (Optional) Use one of the following for those systems that require surfacing.

1. Flood coat of BUR Plus 101, 102, 200, 201, 202, 303, 404, 606, Type III or Type IV asphalt with an application rate of 60 lbs./sq. plus gravel or slag at an application rate of 400 lbs/sq.
2. Flood coat of BUR Plus 505 with an application rate of 75 lbs./sq. plus gravel or slag at an application rate of 500 lbs/sq.
3. Multi-Ply Adhesive with an application rate of 4-5 gal/sq, plus gravel or slag at an application rate of 400 lbs/sq or 300 lbs/sq, respectively.
4. Multi-Ply Adhesive with an application rate of 3-4 gal/sq, plus granules at an application rate of 60 lbs/sq.

Maximum Design Pressure: -45 psf (System Limitation # 7)



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Deck Type 7I: Recover

Deck Description: Wood/Steel/Concrete/Lightweight Concrete/Cementitious Wood Fiber/Gypsum

System Type A (2): One or more layers of insulation adhered with approved asphalt

All General and System Limitations apply

<u>Insulation Base Layer</u>	<u>Fastener Density ft²</u>	<u>Fastener Type</u>
one or more layers of any of the following insulations under those listed as Top Layer: E'NRG'Y-2 Minimum: 1.5" thick	N/A	N/A
<u>Insulation Top Layer</u>	<u>Fastener Density ft²</u>	<u>Fastener Type</u>
one or more layers of any of the following insulations High Density Wood Fiberboard Minimum: ½" thick	N/A	N/A
Dens-Deck Minimum: ¼" thick	N/A	N/A
Fesco Board Minimum: ¾" thick	N/A	N/A

Note: Substrate shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of vapor barrier or insulation. All insulation shall be adhered to the vapor barrier or primed deck in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². See RAS 117 for insulation attachment. Insulations 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.

Base Sheet: (Optional if ply sheet used) One ply of Multi-Ply Glass CL, Multi-Ply Glass, BUR Plus Polyester Ply, Performance Ply, Pika Ply SS-2 or Weather Ply adhered to the top layer of the insulated substrate with a full mopping of BUR Plus 101, 102, 200, 201, 202, 303, 404, 606, Type III, Type IV or other approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional if base sheet used) One or two plies of Performance Ply, Pika Ply SS-2, BUR Plus Polyester Ply, Weather Ply, Premium Ply or HK Glass Ply adhered with a full mopping of BUR Plus 101, 102, 200, 201, 202, 303, 404, 606, Type III, Type IV or other approved asphalt within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of Performance Ply FR Mineral, Weather Ply FR Mineral, Pika Ply 808 MSFR, Pika Ply 808 SS, Pika Ply Supreme FR, Weather Ply MA FR, Duoflex G FR or Duoflex S FR adhered with a full mopping of BUR Plus 101, 102, 200, 201, 202, 303, 404, 606, Type III, Type IV or other approved asphalt within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: (Optional) Use one of the following for those systems that require surfacing.



- 1.Flood coat of BUR Plus 101, 102, 200, 201, 202, 303, 404, 606, Type III or Type IV asphalt with an application rate of 60 lbs./sq. plus gravel or slag at an application rate of 400 lbs/sq.
- 2.Flood coat of BUR Plus 505 with an application rate of 75 lbs./sq. plus gravel or slag at an application rate of 500 lbs/sq.
- 3.Multi-Ply Adhesive with an application rate of 4-5 gal/sq, plus gravel or slag at an application rate of 400 lbs/sq or 300 lbs/sq, respectively.
- 4.Multi-Ply Adhesive with an application rate of 3-4 gal/sq, plus granules at an application rate of 60 lbs/sq.

**Maximum Design
Pressure:**

-45 psf (all deck types and insulations other than those noted below)

-212.5 psf (concrete deck, polyiso. base layer, Permalite top layer)

-227.5 psf (concrete deck, polyiso. base layer, HD Wood Fiber top layer)

-237.5 psf (concrete deck, polyiso. base layer, Dens Deck top layer)

(See System Limitation #1)

(See General Limitation #9.)



Deck Type 7I: Recover

Deck Description: Wood/Steel/Concrete

System Type B: Base layers of insulation mechanically fastened, top layer adhered with approved asphalt.

All General and System Limitations apply.

<u>Insulation Base Layer</u>	<u>Fastener Density ft²</u>	<u>Fastener Type</u>
one or more layers of any of the following insulations under those listed as Top Layer: AC-Foam II, E'NRG'Y-2 Minimum: 1.5" thick	1:1.33	Any approved fasteners listed in Table 2

Note: Base layers of insulation shall be mechanically attached using the fastener density listed above. 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 RAS 117 for insulation attachment.

<u>Insulation Base Layer</u>	<u>Fastener Density ft²</u>	<u>Fastener Type</u>
one or more layers of any of the following insulations High Density Wood Fiberboard Minimum: ½" thick	N/A	N/A
Dens-Deck Minimum: ¼" thick	N/A	N/A

Base Sheet: (Optional if ply sheet used) One ply of Multi-Ply Glass CL, Multi-Ply Glass, BUR Plus Polyester Ply, Performance Ply, Pika Ply SS-2 or Weather Ply adhered to the top layer of the insulated substrate with a full mopping of BUR Plus 101, 102, 200, 201, 202, 303, 404, 606, Type III, Type IV or other approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional if base sheet used) One or two plies of Performance Ply, Pika Ply SS-2, BUR Plus Polyester Ply, Weather Ply, Premium Ply or HK Glass Ply adhered with a full mopping of BUR Plus 101, 102, 200, 201, 202, 303, 404, 606, Type III, Type IV or other approved asphalt within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of Performance Ply FR Mineral, Weather Ply FR Mineral, Pika Ply 808 MSFR, Pika Ply 808 SS, Pika Ply Supreme FR, Weather Ply MA FR, Duoflex G FR or Duoflex S FR adhered with a full mopping of BUR Plus 101, 102, 200, 201, 202, 303, 404, 606, Type III, Type IV or other approved asphalt within the EVT range and at a rate of 20 40 lbs./sq.

Surfacing: (Optional) Use one of the following for those systems that require surfacing.

1. Flood coat of BUR Plus 101, 102, 200, 201, 202, 303, 404, 606, Type III or Type IV asphalt with an application rate of 60 lbs./sq. plus gravel or slag at an application rate of 400 lbs/sq



2. Flood coat of BUR Plus 505 with an application rate of 75 lbs./sq. plus gravel or slag at an application rate of 500 lbs/sq.
3. Multi-Ply Adhesive with an application rate of 4-5 gal/sq, plus gravel or slag at an application rate of 400 lbs/sq or 300 lbs/sq, respectively.
4. Multi-Ply Adhesive with an application rate of 3-4 gal/sq, plus granules at an application rate of 60 lbs/sq.

Maximum Design Pressure: -75 psf (See System Limitation # 7)



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Deck Type 7: Recover

Deck Description: Lightweight Concrete

System Type E: Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of Multi-Ply Glass CL, Multi-Ply Glass, Performance Ply or Pika Ply SS-2 fastened to the deck as described below.

Fastening#1: Fasten anchor sheet with ES Products FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners spaced 7" o.c. at a 4" side lap and 7" o.c. in two staggered rows in the center of the sheet.

Fastening#2: Fasten anchor sheet (excluding Multi-Ply Glass and inverted Hickman Premium Cap) with Simplex Base-Lok Fasteners or SFS Stadler Base-Lok Fasteners spaced 10" o.c. at a 4" side lap and 10" o.c. in two staggered rows in the center of the sheet.

Note: Base sheet fasteners shall be tested for withdrawal resistance in compliance with TAS 105 to confirm compliance with the wind load requirements of applicable building code.

Ply Sheet: (Optional if base sheet used) One or two plies of Performance Ply, Pika Ply SS-2, BUR Plus Polyester Ply, Weather Ply, Premium Ply or HK Glass Ply adhered with a full mopping of BUR Plus 101, 102, 200, 201, 202, 303, 404, 606, Type III, Type IV or other approved asphalt within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of Performance Ply FR Mineral, Weather Ply FR Mineral, Pika Ply 808 MSFR, Pika Ply 808 SS, Pika Ply Supreme FR, Weather Ply MA FR, Duoflex G FR or Duoflex S FR adhered with a full mopping of BUR Plus 101, 102, 200, 201, 202, 303, 404, 606, Type III, Type IV or other approved asphalt within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: (Optional) Use one of the following for those systems that require surfacing.

1. Flood coat of BUR Plus 101, 102, 200, 201, 202, 303, 404, 606, Type III or Type IV asphalt with an application rate of 60 lbs./sq. plus gravel or slag at an application rate of 400 lbs/sq.
2. Flood coat of BUR Plus 505 with an application rate of 75 lbs./sq. plus gravel or slag at an application rate of 500 lbs/sq.
3. Multi-Ply Adhesive with an application rate of 4-5 gal/sq, plus gravel or slag at an application rate of 400 lbs/sq or 300 lbs/sq, respectively.
4. Multi-Ply Adhesive with an application rate of 3-4 gal/sq, plus granules at an application rate of 60 lbs/sq.

Maximum Design Pressure: -45 psf (System Limitation # 7)



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RECOVER SYSTEM LIMITATIONS:

1. All System Limitations and General Limitations shall apply. See specific deck type Notice of Acceptance for deck type System Limitations.

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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