

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 High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: W.P. Hickman Conventional Built-Up-Roof Systems Over Recover 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 17.

The submitted documentation was reviewed by Frank Zuloaga, RRC



ROOFING ASSEMBLY APPROVAL

Category:	Roofing
Sub-Category:	Built-Up Roofing
Material:	Fiberglass
Deck Type:	Recover
Maximum Design Pressure	-237 psf
Fire Classification:	See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Aluminum Shield	5, 55 gallons	ASTM D 1227 type I	An asphalt based, asbestos free, non-fibrated aluminized coating.
ElastoShield□	5, 55 gallons	ASTM D 1227 type III	A polymer modified, asbestos free asphalt roofing emulsion.
HK Aluminum Shield	5, 55 gallons	ASTM D 2824 Type I	Asphalt based, asbestos free non-fibered aluminum paint.
HK Aluminum Shield Fibrated	5, 55 gallons	ASTM D 2824 type III	Asphalt based, asbestos free aluminized coating.
HK ReCoat	5, 55 gallons	ASTM D 1227 type III	An asphalt clay, asbestos free roofing emulsion.
BUR Plus™ 101	Kegs	ASTM D 312	Approved, Type III asphalt.
BUR Plus™ 202	40 lb. boxes	ASTM D 312	Approved modified SEBS asphalt.
BUR Plus™ 303	40 lb. boxes	ASTM D 312	Approved, modified SEBS asphalt.
BUR Plus™ 404	40 lb. boxes	ASTM D 312	Approved, heavy modified SEBS asphalt.
BUR Plus™ 505	40 lb. boxes	ASTM D 450	Approved, modified coal tar pitch adhesive.
BUR Plus™ 606	40 lbs. boxes	ASTM D 312	Approved, modified SEBS asphalt.
HK Tar Plus	Kegs	ASTM D 450	Approved, modified coal tar pitch
Multi-Ply Adhesive	5, 55 gallon pails	proprietary	Asphalt based, asbestos free adhesive.
Multi-Ply Adhesive-SEBS	5, 55 gallon pails	proprietary	Asphalt based, asbestos free SEBS modified adhesive.
HK Tarred Felt	39.5" x 333'	ASTM D 2626	Organic roofing felt saturated with coal tar.
HK Tarred Glass	39.5" x 333'	ASTM D 4990	Fiberglass sheet impregnated with coal tar.
BUR Plus™ Polyester Ply	39.5" x 333'	proprietary	A 170 gram/m ² uncoated polyester ply sheet.
Multi-Ply Glass CL	36" x 72'; weight: 33 lbs./sq.	ASTM D 2178	Tri-laminated polyester / glass / polyester mat coated with asphalt.
Multi-Ply Glass CL /W	39 ³ / ₈ " x 99' x 45 mils	ASTM D 5147	SBS modified fiberglass reinforced base sheet.
Multi-Ply Glass	36" x 72'; weight: 33 lbs./sq.	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.
Premium Ply W	39 ³ / ₈ " x 165'	ASTM D 2178	Type VI fiberglass ply sheet.
Performance Ply	39.5" x 68'		Spunbonded, non-woven bitumen coated polyester sheet.



<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Pika Ply SS-2	36" x 68'		SEBS polymer modified asphalt, polyester reinforced, smooth surfaced membrane.
Hickman Premium Cap	39 ³ / ₈ " x 33'	ASTM D 3909	Fiberglass reinforced mineral surface cap sheet.
Weather Ply	39.5" x 68'		Spunbonded, non-woven bitumen coated polyester sheet.

APPROVED INSULATIONS:

TABLE 2

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
Whiteline	Polyisocyanurate foam insulation	Apache Products Co.
ACFoam II	Polyisocyanurate foam insulation	Atlas Energy Products
ConPearl	Expanded perlite mineral fiber	Conglas
Esgard Fiberboard	Wood fiber board	EMCO Ltd.
BP High Strength Fiberboard	High Density Wood fiber Board	EMCO Ltd.
ISO 95+, GL	Polyisocyanurate foam insulation	Firestone Building Products, Inc.
GAF Permalite	Expanded mineral fiber	GAF Mat'l. Corp.
GAF Fiberboard	Wood fiber board	GAF Mat'l. Corp.
GAFTEMP High Density Fiberboard	High density wood fiberboard insulation.	GAF Mat'l. Corp.
Wood Fiberboard	Regular wood fiber insulation	Generic
High Density Wood Fiberboard	High Density Wood fiber Board	generic
Perlite Insulation	Perlite insulation board	generic
Dens Deck	Silicon treated gypsum	G-P Products
Sturdi-Top	Wood fiber insulation board.	G-P Products
Hubert Fiberboard	Wood fiber board	Huebert Fiberboard, Inc.
ENRGY-2, ENRGY-2, Plus, UltraGard Gold, PSI-25	Polyisocyanurate foam insulation	Johns Manville
FiberGlass Roof Insulation	Glass fiber/Mineral fiber insulation	Johns Manville
Fesco Board	Expanded mineral fiber insulation	Johns Manville
Retro-Fit Board	A high-density perlite roof insulation.	Johns Manville
ISORoc	Polyisocyanurate foam / rockwool composite insulation	Johns Manville



NOA No.: 03-0611.15
 Expiration Date: 08/01/08
 Approval Date: 07/31/03
 Page 3 of 17

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
Structodek, Structodek FS	High Density Wood Fiber insulation board.	Masonite
Paroc Cap Board	Rockwool insulation	Partek, Inc.
Multi-Max, FA	Polyisocyanurate foam insulation	Rmax, Inc.
Fiber Base	Asphalt coated wood fiber insulation	Temple Inland Forest Products Corp.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	#14 Dekfast Fastener	Insulation fastener		Construction Fasteners, Inc.
2.	Dekfast Hex Plate	Galvalume AZ50 steel plate	2 7/8" x 3 1/4"	Construction Fasteners, Inc.
3.	Dekfast Lock Plate	Polypropylenel plate	3" x 3 1/4"	Construction Fasteners, Inc.
4.	#14 Roofgrip Fasteners	Insulation fastener for wood and steel.		ITW Buildex Corp.
5.	AccuTrac Hextra Fasteners	Insulation fastener for wood, steel and concrete.		ITW Buildex Corp.
6.	Metal Plate	Galvalume stress plate.	3" round 3" square	ITW Buildex Corp.
7.	Gearlok Plastic Plate	Polypropylene round plate	3.2"	ITW Buildex Corp.
8.	Polymer Gyptec	Glass reinforced Nylon insulation fastener for gypsum & CWF decks.		ITW Buildex Corp.
9.	Polymer Gyptec Metal Plate	Galvalume stress plate	3" round	ITW Buildex Corp.
10.	UltraFast	Insulation fastener for wood, steel and concrete.		Johns Manville
11.	UltraFast Metal Plate	Galvalume AZ55 steel plate	3" square & 3" round	Johns Manville
12.	UltraFast Plastic Plate	High Density Polyolefin round plate	3" round	Johns Manville
13.	Olympic Fastener #14	Insulation fastener		Olympic Mfg. Group, Inc.
14.	Fluted Nail (Con-Tite)	Insulation fastener		Olympic Mfg. Group, Inc.



NOA No.: 03-0611.15
Expiration Date: 08/01/08
Approval Date: 07/31/03
Page 4 of 17

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
15.	Olympic Standard	Galvalume AZ50 steel plate	3" round	Olympic Mfg. Group, Inc.
16.	Olympic	Polypropylene round plate	3" round	Olympic Mfg. Group, Inc.
17.	Olympic G-2	Galvalume AZ55 steel plate	3.5" round	Olympic Mfg. Group, Inc.
18.	NTB Magnum	Glass reinforced Nylon insulation fastener for gypsum & CWF decks with barbs.		Olympic Mfg. Group
19.	NTB Plate	Galvalume stress plate	3" round	Olympic Mfg. Group
20.	NTB Plastic Plate	Polypropylene stress plate for use with NTB fasteners.	3" round	Olympic Mfg. Group
21.	Powerlite	Insulation fastener for CWF and Gypsum decks.		Powers Fasteners, Inc.
22.	Powerlite Plates	Galvalume AZ55 steel plate	3" round	Powers Fasteners, Inc.
23.	Powerlite Lap Plates	Galvalume AZ55 steel plate	2" round	Powers Fasteners, Inc.
24.	Rawl Drive/Spike	Insulation fastener for concrete decks		Powers Fasteners, Inc.
25.	Rawl Plate	Galvalume AZ55 steel plate	3" round	Powers Fasteners, Inc.
26.	Insul-Fixx Fastener	Insulation fastener for wood, steel and concrete.		SFS Stadler, Inc.
27.	Isofast IG Fastener	Insulation fastener for steel and wood decks		SFS Stadler, Inc.
28.	Isofast IG/IG Plate	Galvalume AZ50 steel plate	various	SFS Stadler, Inc.
29.	Insul-Fixx S Plate	Galvalume AZ50 steel plate	3" round	SFS Stadler, Inc.
30.	Insul-Fixx P Plate	Polyethylene plastic plate	3" round	SFS Stadler, Inc.
31.	Tru-Fast Fasteners	Insulation fastener for wood, steel and concrete.		The Tru-Fast Corp.
32.	Tru-Fast MP-3	Galvalume AZ50 steel plate	3" round	The Tru-Fast Corp.
33.	Tru-Fast Plates	Galvalume AZ55 steel plate	3" round	The Tru-Fast Corp.
34.	Tru-Fast Plates	Polyethylene plastic plate	3" round	The Tru-Fast Corp.



EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Test Name/Report</u>	<u>Date</u>
Factory Mutual	FMRC 4470	J.I. 1V9A3.AM	11/07/92
Factory Mutual	FMRC 4470	J.I. 0W7A4.AM	02/09/93
Factory Mutual	FMRC 4470	J.I. 0X2A0.AM	03/30/93
Factory Mutual	FMRC 4470	J.I. 0P3A6.AM	01/15/88
Factory Mutual	FMRC 4470	J.I. 1R4A2.AM	03/14/90
Factory Mutual	FMRC 4470	J.I. 1R6A2.AM	04/21/91
Factory Mutual	FMRC 4470	J.I. 1T7A2.AM	02/28/92
Factory Mutual	FMRC 4470	J.I. 1T7A1.AM	01/10/92
Factory Mutual	FMRC 4470	J.I. 0X0A9.AM	03/25/94
Factory Mutual	FMRC 4470	J.I. 0W6A2.AM	02/05/93
Factory Mutual	FMRC 4470	J.I. 0X7A4.AM	08/26/93
Factory Mutual	FMRC 4470	J.I. 3Y4A1.AM	09/20/95
Factory Mutual	FMRC 4470	J.I. 4D9A5.AM	01/15/99
Factory Mutual	FMRC 4470	J.I. 1D7A4.AM	11/09/98
Warnock Hersey	ASTM E 108	495-R-0344	01/01/90
Warnock Hersey	ASTM E 108	495-R-0400	01/01/90
Warnock Hersey	ASTM E 108	495-R-0430	01/01/90
Warnock Hersey	ASTM E 108	495-R-0447	01/01/90
Warnock Hersey	ASTM E 108	495-R-0526	01/01/90
Warnock Hersey	ASTM E 108	495-R-0400A	01/01/90
Exterior Research & Design, LLC	TAS 114(J)	#4473.10.97-1	11/17/97



APPROVED ASSEMBLIES:

Deck Type 7I: Recover

Deck Description: Wood

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

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam II, ENRGY-2, ENRGY-2 Plus, Isoroc, Multi-Max Minimum 1" thick	N/A	N/A
Base or Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
BP High Strength, GAFTEMP High Density, High Density Wood Fiberboard, Sturdi-Top, Fiber Base HD1, HD6, Structodeck, Esgard, Fiberboard, GAFTEMP Fiberboard, Huebert Fiberboard Minimum ½" thick	N/A	N/A
ConPerl, GAFTEMP Permalite, FescoBoard, Perlite Minimum ¾" thick	N/A	N/A

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 Roofing Application Standard RAS 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 side facing down.

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

Fastening (wood): Fasten anchor sheet with approved nails and tin caps at a 4" side lap 9" o.c. and two rows staggered in the center of the sheet 12" o.c.

Base Sheet: (Optional) One ply of Pika Ply SS-2, Premium Ply, HK Glass Ply, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply or an approved ASTM D 4601 base sheet adhered with approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or, one ply of Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, or Multi-Ply Glass CL adhered with BUR Plus 505 or HK Tar Plus at a rate of 20-40 lbs./sq.; or, one ply of Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, or Multi-Ply Glass CL/W adhered with Multi-Ply Adhesive at a rate of 2.5 to 3 gal./sq.



Ply Sheet: Two or more plies of Premium Ply, HK Glass Ply, BUR Plus Polyester Ply, Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply, Performance Ply W or an approved ASTM D 2178 ply sheet, in any combination, adhered to any of the base sheets noted above with approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or, two or more plies of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, HK Tarred Felt or HK Tarred Glass, in any combination, adhered to Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, or Multi-Ply Glass CL base sheets with BUR Plus 505 or HK Tar Plus at a rate of 20-40 lbs./sq.; or, two or more plies of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply or Performance Ply W, in any combination, adhered to Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply or Weather Ply base sheets with Multi-Ply Adhesive at a rate of 2.5 to 3 gal./sq.

Surfacing: (Optional) Install one of the following (review published fire classification listings for applicable installation requirements):

1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved asphalt at a rate of 40 lb./sq. or in a flood coat of BUR Plus 505 or HK Tar Plus at a rate of 75 lbs./sq.
2. 400 lb./sq. gravel or 300 lb./sq. slag in Multi-Ply Adhesive or Multi-Ply Adhesive SEBS at a rate of 4-5 gal./sq.
3. 60 lbs. of roofing granules embedded in Multi-Ply Adhesive at a rate of 3-4 gal./sq.
4. ElastoShield or HK ReCoat at a rate of 5 gal./sq. followed by HK Aluminum Shield at a rate of 0.75gal./sq.
5. HK Aluminum Shield Fibrated at a rate of 1.5-2.0 gal./sq.

Maximum Design Pressure: -45 psf; (See General Limitation #9.)



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.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam II, ENRGY-2, ENRGY-2 Plus, Isoroc, Multi-Max Minimum 1" thick	N/A	N/A
Base or Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
BP High Strength, GAFTEMP High Density, High Density Wood Fiberboard, Sturdi-Top, Fiber Base HD1, HD6, Structodeck, Esgard, Fiberboard, GAFTEMP Fiberboard, Huebert Fiberboard Minimum ½" thick	N/A	N/A
ConPerl, GAFTEMP Permalite, FescoBoard, Perlite 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. Please refer to Roofing Application Standard 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 side facing down.

Base Sheet: (Optional) One ply of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply or an approved ASTM D 4601 base sheet adhered with approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or, one ply of Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, or Multi-Ply Glass CL adhered with BUR Plus 505 or HK Tar Plus at a rate of 20-40 lbs./sq.; or, one ply of Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, or Multi-Ply Glass CL/W adhered with Multi-Ply Adhesive at a rate of 2.5 to 3 gal./sq.



Ply Sheet: Two or more plies of Premium Ply, HK Glass Ply, BUR Plus Polyester Ply, Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply, Performance Ply W or an approved ASTM D 2178 ply sheet, in any combination, adhered to any of the base sheets noted above with approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or, two or more plies of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, HK Tarred Felt or HK Tarred Glass, in any combination, adhered to Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, or Multi-Ply Glass CL base sheets with BUR Plus 505 or HK Tar Plus at a rate of 20-40 lbs./sq.; or, two or more plies of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply or Performance Ply W, in any combination, adhered to Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply or Weather Ply base sheets with Multi-Ply Adhesive at a rate of 2.5 to 3 gal./sq.

Surfacing: (Optional) Install one of the following (review published fire classification listings for applicable installation requirements):

1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved asphalt at a rate of 40 lb./sq. or in a flood coat of BUR Plus 505 or HK Tar Plus at a rate of 75 lbs./sq.
2. 400 lb./sq. gravel or 300 lb./sq. slag in Multi-Ply Adhesive or Multi-Ply Adhesive SEBS at a rate of 4-5 gal./sq.
3. 60 lbs. of roofing granules embedded in Multi-Ply Adhesive at a rate of 3-4 gal./sq.
4. ElastoShield or HK ReCoat at a rate of 5 gal./sq. followed by HK Aluminum Shield at a rate of 0.75gal./sq.
5. HK Aluminum Shield Fibrated at a rate of 1.5-2.0 gal./sq.

Maximum Design Pressure:

- 45 psf (all deck types and insulations other than those noted below)
- 167 psf (concrete deck, Isoroc insulation)
- 212 psf (concrete deck, polyiso. base layer, GAFTEMP Permalite top layer)
- 227 psf (concrete deck, polyiso. base layer, Celotex HD Wood Fiber top layer)
- 237 psf (concrete deck, polyiso. base layer, Dens Deck top layer)

(See General Limitations #9)



Deck Type 7I: Recover

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

System Type B(1): Base layers of insulation mechanically fastened, top layer adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
AC-Foam II Minimum 1.3" thick	Approved Fastener for Deck Type	1:3 ft²
ENRGY-2 Minimum 1.4" thick	Approved Fastener for Deck Type	1:3 ft²
Isoroc, ENRGY-2 Plus Minimum 1.5" thick	Approved Fastener for Deck Type	1:2.7 ft²
ConPerl, GAFTEMP Permalite, FescoBoard Perlite Minimum ¾" thick	Approved Fastener for Deck Type	1:2.7 ft²
Fiberglas Minimum 1⁵/₁₆" thick	Approved Fastener for Deck Type	1:2.7 ft²
BP High Strength, FM-90 Traffic Top/High Density, GAFTEMP High Density, High Density Wood Fiberboard, Sturdi-Top, Fiber Base HD1, HD6, Structodeck, Esgard, Fiberboard, GAFTEMP Fiberboard, Huebert Fiberboard Minimum 1" thick	Approved Fastener for Deck Type	1:2 ft²

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastener details).

Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
BP High Strength, FM-90 Traffic Top/High Density, GAFTEMP High Density, High Density Wood Fiberboard, Sturdi-Top, Fiber Base HD1, HD6, Structodeck, Esgard, Fiberboard, GAFTEMP Fiberboard, Huebert Fiberboard Minimum ½" thick	N/A	N/A
ConPerl, GAFTEMP Permalite, FescoBoard Perlite, Paroc Cap Board Minimum ¾" thick	N/A	N/A

Note: Optional top layer of insulation shall be adhered with approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.



Base Sheet: (Optional) One ply of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply or an approved ASTM D 4601 base sheet adhered with approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or, one ply of Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, or Multi-Ply Glass CL adhered with BUR Plus 505 or HK Tar Plus at a rate of 20-40 lbs./sq.; or, one ply of Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, or Multi-Ply Glass CL/W adhered with Multi-Ply Adhesive at a rate of 2.5 to 3 gal./sq.

Ply Sheet: Two or more plies of Premium Ply, HK Glass Ply, BUR Plus Polyester Ply, Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply, Performance Ply W or an approved ASTM D 2178 ply sheet, in any combination, adhered to any of the base sheets noted above with approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or, two or more plies of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, HK Tarred Felt or HK Tarred Glass, in any combination, adhered to Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, or Multi-Ply Glass CL base sheets with BUR Plus 505 or HK Tar Plus at a rate of 20-40 lbs./sq.; or, two or more plies of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply or Performance Ply W, in any combination, adhered to Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply or Weather Ply base sheets with Multi-Ply Adhesive at a rate of 2.5 to 3 gal./sq.

Surfacing: (Optional) Install one of the following (review published fire classification listings for applicable installation requirements):

1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved asphalt at a rate of 40 lb./sq. or in a flood coat of BUR Plus 505 or HK Tar Plus at a rate of 75 lbs./sq.
2. 400 lb./sq. gravel or 300 lb./sq. slag in Multi-Ply Adhesive or Multi-Ply Adhesive SEBS at a rate of 4-5 gal./sq.
3. 60 lbs. of roofing granules embedded in Multi-Ply Adhesive at a rate of 3-4 gal./sq.
4. ElastoShield or HK ReCoat at a rate of 5 gal./sq. followed by HK Aluminum Shield at a rate of 0.75 gal./sq.
5. HK Aluminum Shield Fibrated at a rate of 1.5-2.0 gal./sq.

Maximum Design Pressure: -45 psf; (See General Limitations #9)



Deck Type 7I: Recover

Deck Description: Wood / Steel.

System Type B(2): Base layers of insulation mechanically fastened, top layer adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY-2 (Wood Decks Only) Minimum 1.5" thick	27	1:1.33 ft²
AC-Foam II (Steel Decks Only) Minimum 1.5" thick	27	1:1.33 ft²

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastener details).

Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
High Density Wood Fiberboard Minimum ½" thick	N/A	N/A

Note: Optional top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: (Optional) One ply of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply or an approved ASTM D 4601 base sheet adhered with approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or, one ply of Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, or Multi-Ply Glass CL adhered with BUR Plus 505 or HK Tar Plus at a rate of 20-40 lbs./sq.; or, one ply of Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, or Multi-Ply Glass CL/W adhered with Multi-Ply Adhesive at a rate of 2.5 to 3 gal./sq.



Ply Sheet: Two or more plies of Premium Ply, HK Glass Ply, BUR Plus Polyester Ply, Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply, Performance Ply W or an approved ASTM D 2178 ply sheet, in any combination, adhered to any of the base sheets noted above with approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or, two or more plies of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, HK Tarred Felt or HK Tarred Glass, in any combination, adhered to Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, or Multi-Ply Glass CL base sheets with BUR Plus 505 or HK Tar Plus at a rate of 20-40 lbs./sq.; or, two or more plies of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply or Performance Ply W, in any combination, adhered to Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply or Weather Ply base sheets with Multi-Ply Adhesive at a rate of 2.5 to 3 gal./sq.

Surfacing: (Optional) Install one of the following (review published fire classification listings for applicable installation requirements):

1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved asphalt at a rate of 40 lb./sq. or in a flood coat of BUR Plus 505 or HK Tar Plus at a rate of 75 lbs./sq.
2. 400 lb./sq. gravel or 300 lb./sq. slag in Multi-Ply Adhesive or Multi-Ply Adhesive SEBS at a rate of 4-5 gal./sq.
3. 60 lbs. of roofing granules embedded in Multi-Ply Adhesive at a rate of 3-4 gal./sq.
4. ElastoShield or HK ReCoat at a rate of 5 gal./sq. followed by HK Aluminum Shield at a rate of 0.75gal./sq.
5. HK Aluminum Shield Fibrated at a rate of 1.5-2.0 gal./sq.

Maximum Design Pressure:

-75 psf (for steel decks) (See General Limitation #7.)
-82.5 psf (for wood decks) (See General Limitation #7.)



Deck Type 7: Recover

Deck Description: Wood

System Type E: Base sheet mechanically fastened.

All General and System Limitations apply.

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

Fastening (*wood*): Fasten anchor sheet with approved nails and tin caps at a 4" side lap 9" o.c. and two rows staggered in the center of the sheet 12" o.c.

Ply Sheet: Two or more plys of Premium Ply, HK Glass Ply, BUR Plus Polyester Ply, Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply, Performance Ply W or an approved ASTM D 2178 ply sheet, in any combination, adhered to any of the base sheets noted above with approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or, two or more plys of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, HK Tarred Felt or HK Tarred Glass, in any combination, adhered to Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, or Multi-Ply Glass CL base sheets with BUR Plus 505 or HK Tar Plus at a rate of 20-40 lbs./sq.; or, two or more plys of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply or Performance Ply W, in any combination, adhered to Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply or Weather Ply base sheets with Multi-Ply Adhesive at a rate of 2.5 to 3 gal./sq.

Surfacing: (Optional) Install one of the following (review published fire classification listings for applicable installation requirements):

1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved asphalt at a rate of 40 lb./sq. or in a flood coat of BUR Plus 505 or HK Tar Plus at a rate of 75 lbs./sq.
2. 400 lb./sq. gravel or 300 lb./sq. slag in Multi-Ply Adhesive or Multi-Ply Adhesive SEBS at a rate of 4-5 gal./sq.
3. 60 lbs. of roofing granules embedded in Multi-Ply Adhesive at a rate of 3-4 gal./sq.
4. ElastoShield or HK ReCoat at a rate of 5 gal./sq. followed by HK Aluminum Shield at a rate of 0.75gal./sq.
5. HK Aluminum Shield Fibrated at a rate of 1.5-2.0 gal./sq.

Maximum Design Pressure:

-45 psf (See General Limitation #7.)



Deck Type 7: Recover

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

System Type F: Base sheet adhered with approved asphalt.

All General and System Limitations apply.

Base Sheet: (Optional) One ply of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply or an approved ASTM D 4601 base sheet adhered with approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or, one ply of Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, or Multi-Ply Glass CL adhered with BUR Plus 505 or HK Tar Plus at a rate of 20-40 lbs./sq.; or, one ply of Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, or Multi-Ply Glass CL/W adhered with Multi-Ply Adhesive at a rate of 2.5 to 3 gal./sq.

Ply Sheet: Two or more plies of Premium Ply, HK Glass Ply, BUR Plus Polyester Ply, Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply, Performance Ply W or an approved ASTM D 2178 ply sheet, in any combination, adhered to any of the base sheets noted above with approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or, two or more plies of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, HK Tarred Felt or HK Tarred Glass, in any combination, adhered to Performance Ply, Weather Ply, Pika Ply SS-2, Multi-Ply Glass, or Multi-Ply Glass CL base sheets with BUR Plus 505 or HK Tar Plus at a rate of 20-40 lbs./sq.; or, two or more plies of Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply, Weather Ply or Performance Ply W, in any combination, adhered to Pika Ply SS-2, Multi-Ply Glass, Multi-Ply Glass CL, Multi-Ply Glass CL/W, Performance Ply or Weather Ply base sheets with Multi-Ply Adhesive at a rate of 2.5 to 3 gal./sq.

Surfacing: (Optional) Install one of the following (review published fire classification listings for applicable installation requirements):

1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved asphalt at a rate of 40 lb./sq. or in a flood coat of BUR Plus 505 or HK Tar Plus at a rate of 75 lbs./sq.
2. 400 lb./sq. gravel or 300 lb./sq. slag in Multi-Ply Adhesive or Multi-Ply Adhesive SEBS at a rate of 4-5 gal./sq.
3. 60 lbs. of roofing granules embedded in Multi-Ply Adhesive at a rate of 3-4 gal./sq.
4. ElastoShield or HK ReCoat at a rate of 5 gal./sq. followed by HK Aluminum Shield at a rate of 0.75gal./sq.
5. HK Aluminum Shield Fibrated at a rate of 1.5-2.0 gal./sq.

Maximum Design Pressure:

-45 psf (See General Limitations #9)



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 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 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.)**

END OF THIS ACCEPTANCE



NOA No.: 03-0611.15
Expiration Date: 08/01/08
Approval Date: 07/31/03
Page 17 of 17