



MIAMI-DADE COUNTY
 BUILDING AND NEIGHBORHOOD COMPLIANCE
 DEPARTMENT (BNC)
 BOARD AND CODE ADMINISTRATION DIVISION

**MIAMI-DADE COUNTY
 PRODUCT CONTROL SECTION**

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www.miamidade.gov/building

NOTICE OF ACCEPTANCE (NOA)

Kemper System America, Inc.
1200 N. America Dr.
West Seneca, NY 14224

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 BNC - 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. BNC 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 and the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Kemperol Membrane System for Concrete 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 renews and revises NOA No. 05-0829.03 and consists of pages 1 through 9.
 The submitted documentation was reviewed by Jorge L. Acebo.



NOA No.: 11-0418.01
 Expiration Date: 02/23/16
 Approval Date: 06/16/11
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ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Liquid Applied Roof Systems
Material: Polyester
Deck Type: Concrete
Maximum Design Pressure -495 psf

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
Kemperol BR	10.88 gal. Workpack	Proprietary	Two-part polyester fluid applied membrane system.
Kempertec EP Primer	1.24 gal. Workpack	Proprietary	Two-part solvent free epoxy primer.
Kemperol Fleece 165	164 ft. long rolls of Various widths	Proprietary	Non-woven needle-punched polyester 165 g/m ² weight reinforcing fabric.
Kemperol Fleece 200	164 ft. long rolls of Various widths	Proprietary	Non-woven needle-punched polyester 200 g/m ² weight reinforcing fabric.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
AC Foam II	Polyisocyanurate foam insulation	Atlas Roofing Corporation
ISO 95+ GL	Polyisocyanurate foam insulation	Firestone Building Products
Multi-Max FA-3	Polyisocyanurate foam insulation	Rmax, Inc.
H-Shield	Polyisocyanurate foam insulation	Carlisle Syntec
ENRGY 3	Polyisocyanurate foam insulation	Johns Manville Corp.
Dens Deck Prime	Water resistant gypsum board	G-P Gypsum Corp.
Securock	Water resistant gypsum board	USG



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APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Deckfast Fasteners # 12 and #14	Insulation Fastener	various	Construction Fasteners, Inc
2.	Deckfast Hex Plate	Galvalume hex stress plate	2 7/8" x 3 1/4"	Construction Fasteners, Inc
3	Olympic Fastener #12 & #14	Insulation Fastener	various	OMG, Inc.
4.	Olympic Standard Plate	Round Galvalume AZ50 steel stress plate.	Plate Diameter: 3"	OMG, Inc.

EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Test Specification</u>	<u>Date</u>
Atlantic & Caribbean Roof Consulting, LLC	05-007	TAS 114-D	05/19/05
Factory Mutual	3009502	FM 4470	12/21/00
	OD646.AM	FM 4470	04/13/00
	3015444	FM 4450	07/11/03
	3023458	FM 4470	10/20/05
Underwriters Laboratories Inc	98NK26412	UL 790	02/09/99
PRI Asphalt Technologies	IRT-014-02-01	ASTM D638 ASTM G26	10/17/03
	IRT-016-02-01	TAS 114-I ASTM D5147 ASTM D5602 ASTM D4073	08/09/04



APPROVED ASSEMBLIES:

- Deck Type 3I:** Concrete Decks, Insulated
- Deck Description:** 2500 psi structural concrete or concrete plank
- System Type A(1):** Insulation adhered with Approved Adhesive.

All General and System Limitations apply.

Substrate Preparation: All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. Substrate shall be smooth, free of voids, spalled areas, laitance, honeycombs, and sharp protrusions.

One layer of any of the following insulations:

Insulation Layer	Insulation Fasteners Table 3	Fastener Density ft²
Dens-Deck Prime Minimum: 1/4" thick	N/A	N/A
Securock Minimum: 1/4" thick	N/A	N/A

Note: Insulation shall be adhered with Ashland Chemical Pliodeck adhesive applied in 3/8"- 1/2" beads at 6" on center or other approved adhesive as per manufacturer's specifications. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Primer: Kempertec EP Primer shall be applied to insulation at a minimum rate of 0.6 gal/100 ft²

Membrane: Apply Kemperol BR Resin: Mix Part A (with Catalyst) and Part B in 1:1 ratio and roller or brush apply to primed surface at a minimum rate of 4.5 gal/100 ft². Embed the Kemperol Fleece directly into the resin and use a roller to saturate the fleece from the bottom up, adding resin to the top to saturate dry spots. Additionally, add the topcoat of resin at a rate of up to 2 gal/100 ft² to complete fleece saturation before the resin cures. Roll excess resin toward any unsaturated fleece. Minimum membrane thickness of 70 dry mils.

Surfacing: Apply kiln dried silica sand (.4 - .8mm) broadcast immediately into the wet resin at the rate of 30lbs/100 ft² to the roof surface.

Maximum Design Pressure: -302.5 psf. (General Limitation #9)



Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(2): Insulation adhered with Approved Adhesive.

All General and System Limitations apply.

Substrate Preparation: All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. Substrate shall be smooth, free of voids, spalled areas, laitance, honeycombs, and sharp protrusions.

Base Insulation Layer	Insulation Fasteners Table 3	Fastener Density ft²
Any approved Polyisocyanurate Insulation listed in Table 2. Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners Table 3	Fastener Density ft²
Dens-Deck Prime Minimum: 1/4" thick	N/A	N/A
Securock Minimum: 1/4" thick	N/A	N/A

Note: Both layers of insulation shall be adhered with Ashland Chemical Pliodeck adhesive applied in 3/8"- 1/2" beads at 6" on center or other approved adhesive as per manufacturer's specifications. 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.

Primer: Kempertec EP Primer shall be applied to insulation at a minimum rate of 0.6 gal/100 ft²

Membrane: Apply Kemperol BR Resin: Mix Part A (with Catalyst) and Part B in 1:1 ratio and roller or brush apply to primed surface at a minimum rate of 4.5 gal/100 ft². Embed the Kemperol Fleece directly into the resin and use a roller to saturate the fleece from the bottom up, adding resin to the top to saturate dry spots. Additionally, add the topcoat of resin at a rate of up to 2 gal/100 ft² to complete fleece saturation before the resin cures. Roll excess resin toward any unsaturated fleece. Minimum membrane thickness of 70 dry mils.

Surfacing: Apply kiln dried silica sand (.4 - .8mm) broadcast immediately into the wet resin at the rate of 30lbs/100 ft² to the roof surface.

Maximum Design Pressure: -217.5 psf. (See General Limitations # 9)



Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(3): Insulation adhered with Approved Asphalt.

All General and System Limitations apply.

Substrate Preparation: All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. Substrate shall be smooth, free of voids, spalled areas, laitance, honeycombs, and sharp protrusions.

Base Insulation Layer	Insulation Fasteners Table 3	Fastener Density ft²
Any approved Polyisocyanurate Insulation listed in Table 2. Minimum 2" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners Table 3	Fastener Density ft²
Dens-Deck Prime Minimum: ¼" thick	N/A	N/A
Securock Minimum: ¼" thick	N/A	N/A

Note: All insulation shall be adhered in a solid mopping of any approved mopping type III or IV asphalt within the EVT range and at a rate of 20-40 lbs / 100 sf. 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.

Primer: Kempertec EP Primer shall be applied to insulation at a minimum rate of 0.6 gal/100 ft²

Membrane: Apply Kemperol BR Resin: Mix Part A (with Catalyst) and Part B in 1:1 ratio and roller or brush apply to primed surface at a minimum rate of 4.5 gal/100 ft². Embed the Kemperol Fleece directly into the resin and use a roller to saturate the fleece from the bottom up, adding resin to the top to saturate dry spots. Additionally, add the topcoat of resin at a rate of up to 2 gal/100 ft² to complete fleece saturation before the resin cures. Roll excess resin toward any unsaturated fleece. Minimum membrane thickness of 70 dry mils.

Surfacing: Apply kiln dried silica sand (.4 - .8mm) broadcast immediately into the wet resin at the rate of 30lbs/100 ft² to the roof surface.

Maximum Design Pressure: -302.5 psf. (See General Limitations#9)



Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type C: Insulation layer mechanically fastened.

All General and System Limitations apply.

Substrate Preparation: All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. Substrate shall be smooth, free of voids, spalled areas, laitance, honeycombs, and sharp protrusions.

Insulation Layer	Insulation Fasteners Table 3	Fastener Density ft²
Any approved polyisocyanurate Insulation listed in table 2. Minimum 1.5" thick	1 & 2 or 3 & 4	1: 2
(Optional)Top Insulation Layer	Insulation Fasteners Table 3	Fastener Density ft²
Dens-Deck Prime Minimum: ¼" thick	1 & 2 or 3 & 4	1: 2
Securock Minimum: ¼" thick	1 & 2 or 3 & 4	1: 2

Note: 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.

Primer: Kempertec EP Primer shall be applied to insulation at a minimum rate of 0.6 gal/100 ft²

Membrane: Apply Kemperol BR Resin: Mix Part A (with Catalyst) and Part B in 1:1 ratio and roller or brush apply to primed surface at a minimum rate of 4.5 gal/100 ft². Embed the Kemperol Fleece directly into the resin and use a roller to saturate the fleece from the bottom up, adding resin to the top to saturate dry spots. Additionally, add the topcoat of resin at a rate of up to 2 gal/100 ft² to complete fleece saturation before the resin cures. Roll excess resin toward any unsaturated fleece. Minimum membrane thickness of 70 dry mils.

Surfacing: Apply kiln dried silica sand (.4 - .8mm) broadcast immediately into the wet resin at the rate of 30lbs/100 ft² to the roof surface.

Maximum Design Pressure: -60 psf. (See General Limitations#7)



Deck Type 3: Concrete Decks, Non-Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type F: Kemper system applied directly to concrete.

All General and System Limitations apply.

Substrate Preparation: All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. Substrate shall be smooth, free of voids, spalled areas, laitance, honeycombs, and sharp protrusions.

Primer: Kempertec EP Primer shall be applied to prepared concrete deck at a minimum rate of 0.6 gal/100 ft².

Membrane: Apply Kemperol BR Resin: Mix Part A (with Catalyst) and Part B in 1:1 ratio and roller or brush apply to primed surface at a minimum rate of 4.5 gal/100 ft². Embed the Kemperol Fleece directly into the resin and use a roller to saturate the fleece from the bottom up, adding resin to the top to saturate dry spots. Additionally, add the topcoat of resin at a rate of up to 2-gal/100 ft² to complete fleece saturation before the resin cures. Roll excess resin toward any unsaturated fleece. Minimum membrane thickness of 70 dry mils.

Surfacing: Apply kiln dried silica sand (.4 - .8mm) broadcast immediately into the wet resin at the rate of 30lbs/100 ft² to the roof surface.

Maximum Design Pressure: -495 psf (See General limitation #9)



CONCRETE 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 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.

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 Engineer, 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 and/or RAS 137. 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 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

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