



**DEPARTMENT OF PERMITTING, ENVIRONMENT, AND REGULATORY  
AFFAIRS (PERA)  
BOARD AND CODE ADMINISTRATION DIVISION  
NOTICE OF ACCEPTANCE (NOA)**

**MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION**  
11805 SW 26 Street, Room 208  
Miami, Florida 33175-2474  
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[www.miamidade.gov/pera](http://www.miamidade.gov/pera)

**Sika Sarnafil Inc.  
100 Dan Road  
Canton, MA 02021**

**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 PERA – 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. PERA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

**DESCRIPTION: Sika Sarnafil PVC Single Ply Roofing over Lightweight Insulating Concrete Deck.**

**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. 08-0717.07 and consists of pages 1 through 19.  
The submitted documentation was reviewed by Jorge L. Acebo.



**NOA No.: 12-0313.17  
Expiration Date: 07/17/13  
Approval Date: 06/28/12  
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## ROOFING SYSTEM APPROVAL

**Category:** Roofing  
**Sub-Category:** Single Ply  
**Material:** PVC  
**Deck Type:** Lightweight Concrete  
**Maximum Design Pressure** -270 psf

### 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>
G410	Various	ASTM D 4434	Fiberglass reinforced PVC roofing membrane.
G410 Felt	Various	ASTM D 4434	Fiberglass reinforced PVC roofing membrane with a non-woven felt backing.
G410 PS	Various	ASTM D 4434	Fiberglass reinforced PVC roofing membrane with a peel & stick self-adhering backing.
S327	Various	ASTM D 4434	Polyester reinforced PVC roofing membrane.
S327 Felt	Various	ASTM D 4434	Polyester reinforced PVC roofing membrane.
Sikaplan 45	45 mil thick	ASTM D 4434	White polyester reinforced PVC roofing membrane.
G459	Various	ASTM D 4434	Fiberglass reinforced PVC Alloy asphalt compatible flashing membrane.
Sarnacol 2170	5 gallons		Solvent based bonding adhesive.
Sarnacol 2121	5 gallons		Water based bonding adhesive.
Sarnacornr	5", 6", 8.5"		Prefabricated inside and outside corner flashing.
Sarnaflash	18" x 40"		Prefabricated expansion joints.
Sarnatred	3.25' x 32.8'		PVC walkway protection sheet.
SarnaWalkways	Various		PVC walkway protection sheet.
Sarnastack	Various		Prefabricated cone flashing.
Sarnadrain RAC	Various		Aluminum drain insert.
Sarnaclad	Various		Heat weldable PVC/galvanized steel flashing



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**APPROVED INSULATIONS:**

**TABLE 2**

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
Sarnatherm	Isocyanurate Insulation	Sarnafil, Inc.
ACFoam II	Isocyanurate Insulation	Atlas Roofing Corp.
ENRGY 3	Isocyanurate Insulation	Johns Manville
EPS	Type IX Expanded polystyrene with a minimum density of 1.8 pcf	Generic
DensDeck, DensDeck Prime	Silicon treated gypsum	G-P Products
H-Shield	Isocyanurate Insulation	Hunter Panels
Multi-Max FA-3	Isocyanurate Insulation	Rmax, Inc.
XPS	Type IV Extruded polystyrene with a minimum density of 1.6 pcf	Generic

**EVIDENCE SUBMITTED:**

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Exterior Research & Design	02767.02.06	TAS 114	02/08/06
Factory Mutual Research Corporation	0X3A3.AM	FM 4470	07/31/94
	0P6A6.AM	FM 4470	03/03/94
	2X2A5.AM	FM 4470	07/31/94
	OB9A0.AM	FM 4470	10/22/96
	4B3A2.AM	FM 4470	06/19/97
	2B8A4.AM	FM 4470	07/02/97
	IZ5A6.AM	FM 4470	07/18/97
	3016201	FM 4470	01/28/03
	3028309	FM 4470	03/30/07
	3032532	FM 4470	08/05/08
	Addendum Letter for Report: 3032532		11/26/08
IRT-Arcon	06-055	TAS 114-J	11/20/06



**APPROVED ASSEMBLIES:**

- Membrane Type:** Single Ply, Thermoplastic, PVC  
**Deck Type 4I:** Lightweight Concrete, Insulated  
**Deck Description:** Min. 200 psi Celcore or Mearlcrete cast over structural concrete  
**System Type A(1):** One or more layers of insulation adhered with approved adhesive

**All General and System Limitations apply.**

<u>Insulation Base Layer:</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
ACFoam II, Sarnatherm Minimum: 1.5” thick	N/A	N/A
<u>Insulation Top Layer (Optional):</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
ACFoam II, Sarnatherm Minimum: 1.5 ” thick	N/A	N/A

**Note:** All insulation shall be adhered to the LWC deck in TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12” o.c. 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.

**Membrane:** Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a ¼” x ¼” notched squeegee or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

***Maximum Design Pressure -210 psf (See General Limitation #9)***

Sarnafil G410 or S327 adhered with Sarnacol 2170 applied at 1.25gal/sq. to the substrate and .5 gal/sq. to the back of the membrane.

***Maximum Design Pressure -127.5 psf (See General Limitation #9)***

**Maximum Design Pressure:** See Membrane Options Above



**Membrane Type:** Single Ply, Thermoplastic, PVC  
**Deck Type 4I:** Lightweight Concrete, Insulated  
**Deck Description:** Min. 200 psi Celcore cast over structural concrete  
**System Type A(2):** One or more layers of insulation adhered with approved adhesive

**All General and System Limitations apply.**

<u>Insulation Base Layer:</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
<b>Multi-Max FA-3, H-Shield, ENRGY 3, Sarnatherm</b> Minimum: 1.5" thick	N/A	N/A

<u>Insulation Top Layer (Optional):</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
<b>Multi-Max FA-3, H-Shield, ENRGY 3, Sarnatherm</b> Minimum: 1.5" thick	N/A	N/A

**Note: All insulation shall be adhered to the LWC deck in TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. 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.**

**Membrane:** Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

***Maximum Design Pressure -222.5 psf (See General Limitation #9)***

Sarnafil G410 or S327 adhered with Sarnacol 2170 applied at 1.25gal/sq. to the substrate and .5 gal/sq. to the back of the membrane.

***Maximum Design Pressure -127.5 psf (See General Limitation #9)***

**Maximum Design Pressure:** See Membrane Options Above



**Membrane Type:** Single Ply, Thermoplastic, PVC  
**Deck Type 4I:** Lightweight Concrete, Insulated  
**Deck Description:** Min. 200 psi Mearlcrete cast over structural concrete  
**System Type A(3):** One or more layers of insulation adhered with approved adhesive

**All General and System Limitations apply.**

<u>Insulation Base Layer:</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
Multi-Max FA-3, H-Shield, ENRGY 3, Sarnatherm Minimum: 1.5" thick	N/A	N/A

<u>Insulation Top Layer (Optional):</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
Multi-Max FA-3, H-Shield, ENRGY 3, Sarnatherm Minimum: 1.5" thick	N/A	N/A

**Note: All insulation shall be adhered to the LWC deck in TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. 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.**

**Membrane:** Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

***Maximum Design Pressure -225 psf (See General Limitation #9)***

Sarnafil G410 or S327 adhered with Sarnacol 2170 applied at 1.25gal/sq. to the substrate and .5 gal/sq. to the back of the membrane.

***Maximum Design Pressure -127.5 psf (See General Limitation #9)***

**Maximum Design Pressure:** See Membrane Options Above



**Membrane Type:** Single Ply, Thermoplastic, PVC  
**Deck Type 4I:** Lightweight Concrete, Insulated  
**Deck Description:** Min. 200 psi Elastizell cast over structural concrete  
**System Type A(4):** One or more layers of insulation adhered with approved adhesive

**All General and System Limitations apply.**

<u>Insulation Base Layer:</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
ACFoam II, Multi-Max FA-3, H-Shield, ENRGY 3, Sarnatherm Minimum: 1.5" thick	N/A	N/A

<u>Insulation Top Layer (Optional):</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
Multi-Max FA-3, H-Shield, ENRGY 3, Sarnatherm Minimum: 1.5" thick	N/A	N/A

**Note:** All insulation shall be adhered to the LWC deck in TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. 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.

**Membrane:** Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

***Maximum Design Pressure -180 psf (See General Limitation #9)***

Sarnafil G410 or S327 adhered with Sarnacol 2170 applied at 1.25gal/sq. to the substrate and .5 gal/sq. to the back of the membrane.

***Maximum Design Pressure -127.5 psf (See General Limitation #9)***

**Maximum Design Pressure:** See Membrane Options Above



**Membrane Type:** Single Ply, Thermoplastic, PVC  
**Deck Type 4I:** Lightweight Concrete, Insulated  
**Deck Description:** Min. 200 psi Celcore, Mearlcrete or Elastizell cast over structural concrete  
**System Type A(5):** One or more layers of insulation adhered with approved adhesive

**All General and System Limitations apply.**

<b><u>Insulation Base Layer (Optional):</u></b>	<b><u>Fastener Density</u></b>	<b><u>Fastener Type</u></b>
ACFoam II, Multi-Max FA-3, H-Shield, ENRGY 3, Sarnatherm Minimum: 1.5" thick	N/A	N/A

<b><u>Insulation Top Layer</u></b>	<b><u>Fastener Density</u></b>	<b><u>Fastener Type</u></b>
ACFoam II, Multi-Max FA-3, H-Shield, ENRGY 3, Sarnatherm Tapered	N/A	N/A

**Note: All insulation shall be adhered to the LWC deck in TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. 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.**

**Membrane:** Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Or

Sarnafil G410 or S327 adhered with Sarnacol 2170 applied at 1.25gal/sq. to the substrate and .5 gal/sq. to the back of the membrane.

**Maximum Design Pressure:** -117 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic, PVC  
**Deck Type 4I:** Lightweight Concrete, Insulated  
**Deck Description:** Min. 200 psi Celcore or Mearlcrete cast over structural concrete  
**System Type A(6):** One or more layers of insulation adhered with approved adhesive

**All General and System Limitations apply.**

<u>Insulation Base Layer (Optional):</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
ACFoam II, Multi-Max FA-3, H-Shield, ENRGY 3, Sarnatherm or minimum 2.0 pcf Approved extruded or expanded EPS insulation boards		
Minimum: 1.5" thick	N/A	N/A

<u>Insulation Top Layer:</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
DensDeck, DensDeck Prime		
Minimum: 0.25" thick	N/A	N/A

**Note: All insulation shall be adhered to the LWC deck in TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. 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.**

**Membrane:** Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

***Maximum Design Pressure -202.5 psf (See General Limitation #9)***

Sarnafil G410 or S327 adhered with Sarnacol 2170 applied at 1.25gal/sq. to the substrate and .5 gal/sq. to the back of the membrane.

***Maximum Design Pressure -127.5 psf (See General Limitation #9)***

**Maximum Design Pressure:** See Membrane Options Above



**Membrane Type:** Single Ply, Thermoplastic, PVC  
**Deck Type 4I:** Lightweight Concrete, Insulated  
**Deck Description:** Min. 200 psi Elastizell cast over structural concrete  
**System Type A(7):** One or more layers of insulation adhered with approved adhesive

**All General and System Limitations apply.**

<u>Insulation Base Layer (Optional):</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
ACFoam II, Multi-Max FA-3, H-Shield, ENRGY 3, Sarnatherm or minimum 2.0 pcf Approved extruded or expanded EPS insulation boards		
Minimum: 1.5" thick	N/A	N/A

<u>Insulation Top Layer:</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
DensDeck, DensDeck Prime		
Minimum: 0.25" thick	N/A	N/A

**Note: All insulation shall be adhered to the LWC deck in TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. 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.**

**Membrane:** Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

***Maximum Design Pressure -180.0 psf (See General Limitation #9)***

Sarnafil G410 or S327 adhered with Sarnacol 2170 applied at 1.25gal/sq. to the substrate and .5 gal/sq. to the back of the membrane.

***Maximum Design Pressure -127.5 psf (See General Limitation #9)***

**Maximum Design Pressure:** See Membrane Options Above



**Membrane Type:** Single Ply, Thermoplastic, PVC  
**Deck Type 4I:** Lightweight Concrete, Insulated  
**Deck Description:** Min. 200 psi Celcore, Mearlcrete or Elastizell cast over structural concrete  
**System Type A(8):** One or more layers of insulation adhered with approved adhesive

**All General and System Limitations apply.**

<u>Insulation Base Layer:</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
<b>Minimum 1.6 pcf extruded or min. 1.8 pcf Approved expanded EPS insulation boards</b>		
Minimum: 1.5" thick	N/A	N/A

<u>Insulation Top Layer:</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
<b>DensDeck, DensDeck Prime</b>		
Minimum: 0.25" thick	N/A	N/A

**Note: All insulation shall be adhered to the LWC deck in TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. 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.**

**Membrane:** Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

***Maximum Design Pressure -180.0 psf (See General Limitation #9)***

Sarnafil G410 or S327 adhered with Sarnacol 2170 applied at 1.25gal/sq. to the substrate and .5 gal/sq. to the back of the membrane.

***Maximum Design Pressure -127.5 psf (See General Limitation #9)***

**Maximum Design Pressure:** See Membrane Options Above



**Membrane Type:** Single Ply, Thermoplastic, PVC  
**Deck Type 4:** Lightweight Concrete, Non-Insulated  
**Deck Description:** Celcore Cellular Lightweight Concrete over 18-22 ga Steel Deck  
**System Type F(1):** Membrane adhered.

**All General and System Limitations apply.**

**Deck:** 18-22 ga vented steel deck shall be secured to ¼” thick structural supports spaced a maximum spacing as listed below in Table 1 with ITW Buildex Traxx/5 at the bottom of each rib (6” o/c.)

**The following assembly is approved to a maximum design pressure as listed below in Table A. No substitutions shall be made. All General and System Limitations apply.**

Approved rigid insulation panels listed in the current Celcore Cellular Lightweight Concrete NOA shall be placed in a minimum 1/8” slurry-coat of insulating concrete, while the material is still in a plastic state.

**Insulation panels and slurry coat shall be left to cure overnight before the installation of the topcoat.**

The following day a 2” minimum topcoat shall be poured and screeded to a smooth finish surface free of ridges and at the proper thickness and slope prior to the installation of the roofing membrane.

After setting of the topcoat to support foot traffic, Celcore PVA compound shall be applied at a minimum rate of 300 ft<sup>2</sup> per gallon (7.2m<sup>2</sup>/l).

**Membrane:** Sarnafil G410 Felt or S327 Felt, roof membrane shall be adhered with Sarnacol 2121 Adhesive. Applied with a squeegee having ¼ by ¼ notches applied in one coat at rate of 2.25 gallons/100 ft<sup>2</sup>. Or, G410 Felt roof membrane shall be adhered with Sarnacol 2170 Adhesive, roller applied at a rate of 0.8 gallons/100ft<sup>2</sup> as primer and allowed to dry. Followed by a second coat of Sarnacol 2170 Adhesive, roller applied at same rate.

<b>Table A</b>	
<b>Max. Design Pressure (See General Limitation #7)</b>	<b>Max. Structural Support Spacing</b>
-60 psf	6 ft.
-75 psf	5 ft.
-90 psf	4 ft.



**Membrane Type:** Single Ply, Thermoplastic, PVC

**Deck Type 4:** Lightweight Concrete, Non-Insulated

**Deck Description:** Celcore Lightweight Insulating Concrete over Structural Concrete Deck

**System Type F(2):** Membrane adhered.

**All General and System Limitations shall apply.**

**Deck:** Structural Concrete Deck

**The following assembly is approved to a maximum design pressure of -135 psf. No substitutions shall be made. All General and System Limitations apply.**

Approved rigid insulation panels listed in the current Celcore Cellular Lightweight Concrete NOA shall be placed in a minimum 1/8" slurry-coat of insulating concrete, while the material is still in a plastic state.

**Insulation panels and slurry coat shall be left to cure overnight before the installation of the topcoat.**

The following day a 2" minimum topcoat shall be poured and screeded to a smooth finish surface free of ridges and at the proper thickness and slope prior to the installation of the roofing membrane.

After setting of the topcoat to support foot traffic, Celcore PVA compound shall be applied at a minimum rate of 300 ft<sup>2</sup> per gallon (7.2m<sup>2</sup>/l).

**Membrane:** Sarnafil G410 Felt or S327 Felt, roof membrane shall be adhered with Sarnacol 2121 Adhesive. Applied with a squeegee having ¼ by ¼ notches applied in one coat at rate of 2.25 gallons/100 ft<sup>2</sup>.

Or,

Sarnafil G410 Felt or S327 Felt, roof membrane shall be adhered with Sarnacol 2170 Adhesive, roller applied at a rate of 0.8 gallons/100ft<sup>2</sup> as primer and allowed to dry. Followed by a second coat of Sarnacol 2170 Adhesive, roller applied at same rate.

**Maximum Design**

**Pressure:** -135 psf (See General Limitation #9)



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**Membrane Type:** Single Ply, Thermoplastic, PVC  
**Deck Type 4:** Lightweight Concrete, Non-Insulated  
**Deck Description:** Celcore Cellular Lightweight Insulating Concrete over Structural Concrete Deck  
**System Type F(3):** Membrane adhered

**All General and System Limitations shall apply.**

**Deck:** Structural Concrete Deck

**The following assembly is approved to a maximum design pressure of -135 psf. No substitutions shall be made. All General and System Limitations apply.**

Approved rigid insulation panels listed in the current Celcore Cellular Lightweight Concrete NOA shall be placed in a minimum 1/8" slurry-coat of insulating concrete, while the material is still in a plastic state.

**Insulation panels and slurry coat shall be left to cure overnight before the installation of the topcoat.**

The following day a 2" minimum topcoat shall be poured and screeded to a smooth finish surface free of ridges and at the proper thickness and slope prior to the installation of the roofing membrane.

**Membrane:** Sarnafil G410 Felt or S327 Felt, roof membrane shall be adhered with Sarnacol 2121 Adhesive, applied with a squeegee having 1/4" by 1/4" notches applied in one coat at rate of 2.25 gallons/100 ft<sup>2</sup>

**Maximum Design Pressure:** -135 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic, PVC  
**Deck Type 4:** Lightweight Concrete, Non-Insulated  
**Deck Description:** Elastizell Cellular Lightweight Insulating Concrete over Structural Concrete Deck  
**System Type F(4):** Membrane Adhered.

**All General and System Limitations shall apply.**

**Deck:** Structural Concrete Deck

**The following assembly is approved to a maximum design pressure of -270 psf. No substitutions shall be made. All General and System Limitations apply.**

A 2" minimum topcoat shall be poured and screeded to a smooth finish surface free of ridges and at the proper thickness and slope prior to the installation of the roofing membrane.

**Membrane:** Sarnafil G410 Felt or S327 Felt, roof membrane shall be adhered with Sarnacol 2121 Adhesive, applied with a squeegee having 1/4" by 1/4" notches applied in one coat at rate of 2.25 gallons/100 ft<sup>2</sup>.

**Maximum Design Pressure:** -270 psf (See General Limitations #9)



**Membrane Type:** Single Ply, Thermoplastic, PVC  
**Deck Type 4:** Lightweight Concrete, Non-Insulated  
**Deck Description:** Concrecel Cellular Lightweight Concrete (250-300 psi minimum) over 18-22 ga Steel Deck or Structural Concrete Deck with ARBS System  
**System Type F(5):** Membrane adhered.

**All General and System Limitations apply.**

**Deck:** Minimum 22 ga Type BW36-22 slotted steel decking attached to supports spaced 6' o.c. maximum using 5/8" puddle welds (every bottom flute). Steel deck laps are attached with #12 x .75 Tek screws at a maximum spacing of 6" o.c.

Or

Structural Concrete Deck.

EPS 1 lb. density Holey Board Rigid insulation panels shall be placed in a minimum 1/8" slurry-coat of insulating concrete, while the material is still in a plastic state.

**Insulation panels and slurry coat shall be left to cure for four (4) hours before the installation of the topcoat.**

A 2" minimum topcoat shall be poured and screeded to a smooth finish surface free of ridges and at the proper thickness and slope prior to the installation of the roofing membrane.

**Membrane:** Sarnafil G410 Felt roof membrane shall be adhered with Sarnacol 2121 Adhesive. Applied with a squeegee having 1/4 by 1/4 notches applied in one coat at rate of 2.25 gallons/100 ft<sup>2</sup>.

**Maximum Design Pressure:** -135 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic, PVC  
**Deck Type 4:** Lightweight Concrete, Non-Insulated  
**Deck Description:** Insulcel Lightweight Concrete (200 psi minimum) over 18-22 ga Steel Deck  
**System Type F(6):** Membrane adhered.

**All General and System Limitations apply.**

**Deck:** Minimum 18-22 ga Type B-36galvanized steel decking, welded to structural supports spaced 5' o.c. maximum using 3/8" puddle welds at every corrugation (every bottom flute). Steel deck laps are attached with Elco 10-16 x3 and #8260 4in. HWH Type 1, Elco 10-16 x 3 and #8260 4in. HWH Type 3 Drilltite, Hilti S-MD 10-16 x 7/8 HHWH Pilot Point, ITW ICH Traxx/1, or ITW Stitch Teksl at a maximum spacing of 20" o.c.

**LWIC:** 1" to 12" thick Mearl Corrugated EPS Board or Holey Board Rigid insulation panels shall be placed in a minimum 2" of Insulcel Lightweight insulating concrete (min 200psi). Immediately apply a minimum 2" thick top coat of Insulcel Lightweight Insulating concrete (min. 200psi).

Topcoat shall be poured and screeded to a smooth finish surface free of ridges and at the proper thickness and slope prior to the installation of the roofing membrane

**Membrane:** Sarnafil G410, G410 Felt, S327 or S327 Felt adhered with Sarnacol 2121 Adhesive. Applied with a squeegee having 1/4 by 1/4 notches applied in one coat at rate of 2.25 gallons/100 ft<sup>2</sup>.

Or

Sarnacol 2170 applied in a primer coat of 0.8 – 1.0 gal/sq, allowed to dry and applied in a final coat of 0.8 – 1.0 gal/sq.

**Maximum Design Pressure:**

-45 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic, PVC  
**Deck Type 4:** Lightweight Concrete, Non-Insulated  
**Deck Description:** Insulcel Lightweight Concrete (200 psi minimum) over Structural Concrete Deck  
**System Type F(7):** Membrane adhered.

**All General and System Limitations apply.**

**Deck:** Structural Concrete Deck  
**LWIC:** Minimum 2" of Insulcel Lightweight insulating concrete (min 200psi). Topcoat shall be poured and screeded to a smooth finish surface free of ridges and at the proper thickness and slope prior to the installation of the roofing membrane. Roof cover shall be applied within 36-72 hours.  
**Membrane:** Sarnafil G410, G410 Felt, S327 or S327 Felt adhered with Sarnacol 2121 Adhesive. Applied with a squeegee having ¼ by ¼ notches applied in one coat at rate of 2.25 gallons/100 ft<sup>2</sup>.  
**Maximum Design Pressure:** -270 psf (See General Limitation #9)

**Membrane Type:** Single Ply, Thermoplastic, PVC  
**Deck Type 4:** Lightweight Concrete, Non-Insulated  
**Deck Description:** Insulcel Lightweight Concrete (200 psi minimum) over Structural Concrete Deck  
**System Type F(8):** Membrane adhered.

**All General and System Limitations apply.**

**Deck:** Structural Concrete Deck  
**LWIC:** 1" to 12" thick Mearl Corrugated EPS Board or Holey Board Rigid insulation panels shall be placed in a minimum 1/8" of Insulcel Lightweight insulating concrete (min 200psi) applied to water sprayed concrete. Apply a minimum 2" thick top coat of Insulcel Lightweight Insulating concrete (min. 200psi).  
Topcoat shall be poured and screeded to a smooth finish surface free of ridges and at the proper thickness and slope prior to the installation of the roofing membrane.  
**Membrane:** Sarnafil G410, G410 Felt, S327 or S327 Felt adhered with Sarnacol 2121 Adhesive. Applied with a squeegee having ¼ by ¼ notches applied in one coat at rate of 2.25 gallons/100 ft<sup>2</sup>.  
**Maximum Design Pressure:** -270 psf (See General Limitation #9)



## 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 equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117 and/or RAS 137, calculations shall be signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.
3. For Systems where specific lightweight insulating concrete is referenced consult current lightweight insulating concrete NOA for specific deck construction and limitations. For systems where specific lightweight insulating concrete is not referenced, the minimum design mix shall be a minimum of 300 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 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 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 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 products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9N-3 of the Florida Administrative Code.

## END OF THIS ACCEPTANCE



NOA No.: 12-0313.17  
Expiration Date: 07/17/13  
Approval Date: 06/28/12  
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