



**BUILDING AND NEIGHBORHOOD COMPLIANCE
DEPARTMENT (BNC)
BOARD AND CODE ADMINISTRATION DIVISION**

**MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION**

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NOTICE OF ACCEPTANCE (NOA)

**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 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 including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Sika Sarnafil PVC Single Ply Roofing Membrane Over Wood 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. 08-0717.08 and consists of pages 1 through 11.
The submitted documentation was reviewed by Jorge L. Acebo.



**NOA No.: 11-0526.02
Expiration Date: 08/02/12
Approval Date: 09/01/11
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ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Single Ply
Material: PVC
Deck Type: Wood
Maximum Design Pressure -52.5 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.
Sarnatape	Various		Air flow barrier tape
Sarnacol 2170	5 gallons		Solvent based bonding adhesive.
Sarnacol 2121	5 gallons		Water based bonding adhesive.
Sarnacol 2163			Insulation adhesive.
Sarnacol 2164			Insulation adhesive.
Sarnacorner	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



NOA No.: 11-0526.02
 Expiration Date: 08/02/12
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TRADE NAMES OF PRODUCTS MANUFACTURED BY OTHERS:

TABLE 2

<u>Product</u>	<u>Product Description</u>	<u>Manufacturer (with current NOA)</u>
Sarnatherm	Isocyanurate Insulation	Sarnafil, Inc.
Sarnatherm 25 PSI	Polyisocyanurate insulation board.	Sarnafil, Inc.
ACFoam 25 PSI	Isocyanurate Insulation	Atlas Roofing Corp.
ACFoam Composite	Isocyanurate Insulation with perlite facer	Atlas Roofing Corp.
ACFoam II, ACFoam III	Isocyanurate Insulation	Atlas Roofing Corp.
ACFoam Supreme	Isocyanurate Insulation	Atlas Roofing Corp.
DensDeck, DensDeck Prime, DensDeck DuraGuard	Silicon treated gypsum	G-P Products
ENRGY3	Isocyanurate Insulation	Johns Manville
ENRGY 3 Plus	Isocyanurate Insulation with wood fiberboard facer	Johns Manville
ENRGY-3 PSI-25	Isocyanurate Insulation	Johns Manville
High Density Wood Fiberboard	Wood fiber insulation	Generic
H-Shield, H-Shield CG	Isocyanurate Insulation	Hunter Panels
ISO 95+ GL	Isocyanurate Insulation	Firestone
Multi-Max FA-3	Isocyanurate Insulation	Rmax, Inc.
Multi-Max FA 25 PSI	Isocyanurate Insulation	Rmax, Inc.
Perlite Insulation Board	Perlite Insulation	Generic
Thermarroof-3	Isocyanurate Insulation	Rmax, Inc.
Thermarroof Plus-3	Isocyanurate Insulation	Rmax, Inc.
Type X Gypsum	Gypsum Wallboard	Generic
Ultra M-II Iso/glas, Ultra M-II AEF	Isocyanurate Insulation	Homasote Co.



APPROVED FASTENERS:

TABLE 3

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
1.	Olympic Fasteners	Insulation and membrane fastener	Various	OMG, Inc.
2.	Rawl Fasteners	Insulation and membrane fastener	Various	Powers Fasteners, Inc.
3.	SFS Fasteners	Insulation and membrane fastener	Various	SFS Intec, Inc.
4.	Tru-Fast Fasteners	Insulation and membrane fastener	Various	The Tru-Fast Corp.
5.	Sarnafil Fasteners	Insulation and membrane fastener	Various	Sarnafil, Inc.
6.	Sarnadisc	Membrane fastening stress plate.	2" Round	Sarnafil, Inc.
7.	Sarnaplate	Insulation fastening plate.	3" Round	Sarnafil, Inc.
8.	Sarnabars	Galvanized or stainless steel membrane fastening bar.	Various	Sarnafil, Inc.
9.	Sarnareglet	Aluminum surface mount reglet (term. bar).	2.15" x 10'	Sarnafil, Inc.
10.	Sarnastop	Aluminum termination bar.	1" x 10'	Sarnafil, Inc.

EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Celotex Technical Center	MTS Job No. 258215	Wind Uplift	09/09/97
Factory Mutual Research Corporation	J.I. 0X3A3.AM	Wind Uplift	07/31/94
	J.I. 0P6A6.AM	Wind Uplift	03/03/94
	J.I.2X2A5.AM	Wind Uplift	07/31/94
	J.I.10B9A0.AM	Wind Uplift	10/22/96
	J.I.1Z5A6.AM	Wind Uplift	07/18/97
	J.I.4B3A2.AM	Wind Uplift	06/19/97
	3016201	FM 4470	01/28/03
	3021131	FM 4470	07/07/05
	3028309	FM 4470	03/30/07
3032532	FM 4470	08/05/08	
Underwriters Laboratories, Inc.	R8992	Fire Classification	1994



APPROVED ASSEMBLIES:

- Membrane Type:** Single Ply, Thermoplastic, PVC
- Deck Type II:** Wood, Insulated, New Construction
- Deck Description:** 19/32" or greater plywood or wood plank
- System Type B(1):** Base layer of insulation mechanically fastened top layer fully adhered with Approved asphalt, membrane adhered.

All General and System Limitations apply:

- Vapor Retarder:** (Optional) An FMRC approved vapor retarder approved for use with hot asphalt may be applied to the deck or base layer.
- Barrier:** (Optional) Minimum 5/8" Type X Gypsum , 1/4" DensDeck

<u>Base Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
ACFoam II, ACFoam - 25 PSI, ACFoam Composite, H-Shield		
Minimum 1.3" thick or tapered	1, 2, 3, 4, or 5	1:2 ft ²
Minimum 2" thick or tapered	1, 2, 3, 4, or 5	1:4 ft ²
Sarnatherm, Sarnatherm-25 PSI, ENRGY 3, ENRGY 3 Plus, ENRGY 3 PSI-25		
Minimum 1.4" thick or tapered	1, 2, 3, 4, or 5	1:2.9 ft ²
Minimum 2" thick or tapered	1, 2, 3, 4, or 5	1:4 ft ²
DensDeck, DensDeck Prime		
Minimum 1/4" thick	1, 2, 3, 4, or 5	1:1.2 ft ²
Minimum 1/2" thick	1, 2, 3, 4, or 5	1:1.7 ft ²
High Density Wood Fiberboard		
Minimum 1" thick	1, 2, 3, 4, or 5	1:2 ft ²
Ultra M-II Iso/glas, Ultra M-II AEF		
Minimum 1.2" thick or tapered	1, 2, 3, 4, or 5	1:2 ft ²
Minimum 2" thick or tapered	1, 2, 3, 4, or 5	1:4 ft ²
Multi-Max FA-3, Multi-Max FA - 25 PSI, Thermarroof-3		
Minimum 1.25" thick or tapered	1, 2, 3, 4, or 5	1:2 ft ²
Minimum 2" thick or tapered	1, 2, 3, 4, or 5	1:4 ft ²
Perlite		
Minimum 3/4" thick	1, 2, 3, 4, or 5	1:2 ft ²

Note: Base layer shall be mechanically attached with fasteners and density described. 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).



<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam II, AC Foam - 25 PSI Minimum 1.3" thick or tapered	N/A	N/A
Sarnatherm, Sarnatherm-25 PSI, ENRGY 3, ENRGY 3 Plus, ENRGY 3 PSI-25, Minimum 1.4" thick or tapered	N/A	N/A
DensDeck, DensDeck Prime Minimum 1/4" thick	N/A	N/A
Ultra M-II Iso/glas, Ultra M-II AEF Minimum 1.2" thick or tapered	N/A	N/A
Multi-Max FA-3, Multi-Max FA - 25 PSI, Thermarroof-3 Minimum 1.25" thick or tapered	N/A	N/A

Note: Optional top layer of insulation shall be bonded in a hot mopping of approved asphalt at an application rate of 25 lbs./sq. +/- 15%.

Membrane: Sarnafil G410 or S327 adhered with Sarnacol 2170 adhesive applied at 1.25 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or 2121 adhesive applied at a rate of 1.75 gal/sq. to the substrate. G410 feltback adhered with Sarnacol 2170 applied at 1.25 gal/sq. to the substrate followed by a second coat at 1.0 gal/sq. to the substrate.

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



Membrane Type: Single Ply, Thermoplastic, PVC
Deck Type II: Wood, Insulated
Deck Description: 19/32" or greater plywood or wood plank
System Type B(2): Base Layer of insulation mechanically attached, optional top insulation layer adhered with approved adhesive.

All General and System Limitations apply:

Vapor Retarder: (Optional) Any UL or FMRC approved vapor barrier approved for use with hot asphalt may be applied to the deck or perlite base layer.

Barrier: Min. 0.5" thick DensDeck, DensDeck Prime, DensDeck DuraGuard

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam Supreme, H-Shield, Sarnatherm or H-Shield CG Minimum 1.5" thick or tapered	1, 2, 3, 4, or 5	1:4 ft ²

Note: Base layer shall be mechanically attached with fasteners and density described. 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 fastening details).

<u>(Optional) Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam Supreme, H-Shield, Sarnatherm or H-Shield CG Minimum 1.5" thick or tapered	N/A	N/A
DensDeck Prime, DensDeck DuraGuard Minimum 1/4" 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 25 lbs/sq. or 0.75" wide beads of Olympic OlyBond 500 or Spot Shot spaced 12" o.c.

Membrane: Sarnafil G410 PS, self-adhered to insulation and installed with a 3" wide heat welded seam. Membrane is rolled into insulation with a weighted roller.

Maximum Design

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



Membrane Type: Single Ply, Thermoplastic, PVC
Deck Type 1I: Wood, Insulated
Deck Description: 19/32" or greater plywood or wood plank
System Type C: All layers of insulation simultaneously fastened, membrane adhered

All General and System Limitations apply:

Vapor Retarder: (Optional) An FMRC approved vapor retarder approved for use with hot asphalt may be applied to the deck or base layer.

Barrier: (Optional) Minimum 5/8" Type X Gypsum , 1/4" DensDeck.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam II, ACFoam III, ACFoam - 25 PSI, ACFoam Composite, ACFoam Supreme H-Shield Minimum 1.3" thick or tapered	N/A	N/A
Sarnatherm, Sarnatherm-25 PSI, ENRGY 3, ENRGY 3 Plus, ENRGY 3 PSI-25, ISO 95+ GL Minimum 1.4" thick or tapered	N/A	N/A
DensDeck, DensDeck Prime Minimum: ¼ " Thick	N/A	N/A
Multi-Max FA-3, Multi-Max FA - 25 PSI, Thermarroof-3, Thermarroof Plus-3 Minimum: 1.25" Thick or tapered	N/A	N/A
High Density Wood Fiberboard Minimum: 1" Thick	N/A	N/A
Ultra M-II Iso/glas Minimum: 1.2" Thick or tapered	N/A	N/A
Perlite Minimum: ¾" Thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. 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 RAS 117 for fastener details).

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam II, ACFoam - 25 PSI Minimum 1.3" thick or tapered	1, 2, 3, 4, or 5	1:2 ft ²
Minimum 2" thick or tapered	1, 2, 3, 4, or 5	1:4 ft ²
Sarnatherm, Sarnatherm 25 PSI, ENRGY 3, ENRGY 3 Plus, ENRGY 3 PSI-25, ISO 95+ GL Minimum 1.4" thick or tapered	1, 2, 3, 4, or 5	1:2.9 ft ²
Minimum 2" thick or tapered	1, 2, 3, 4, or 5	1:4 ft ²
DensDeck, DensDeck Prime Minimum: ¼ " Thick	1, 2, 3, 4, or 5	1:1.2 ft ²
Minimum: ½ " Thick	1, 2, 3, 4, or 5	1:1.7 ft ²



Top Insulation Layer (Continued)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

High Density Wood Fiberboard

Minimum: 1" Thick or tapered

1, 2, 3, 4, or 5

1:2 ft²

Ultra M-II Iso/glas

Minimum 1.2" thick or tapered

1, 2, 3, 4, or 5

1:2 ft²

Minimum 2" thick or tapered

1, 2, 3, 4, or 5

1:4 ft²

Note: 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 RAS 117 for fastener details).

Membrane:

Sarnafil G410 or S327 adhered with Sarnacol 2170 adhesive applied at 1.25 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or 2121 adhesive applied at a rate of 1.75 gal/sq. to the substrate. G410 feltback adhered with Sarnacol 2170 applied at 1.25 gal/sq. to the substrate followed by a second coat at 1.0 gal/sq. to the substrate.

Maximum Design

Pressure:

-45 psf (See General Limitation #9)



Membrane Type: Single Ply, Thermoplastic, PVC
Deck Type II: Wood, Insulated
Deck Description: 19/32" or greater plywood or wood plank
System Type D: Membrane attached over preliminary fastened insulation.

All General and System Limitations apply:

Barrier: (Optional) Minimum 5/8" Type X Gypsum , 1/4" DensDeck

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam II, ACFoam III, ACFoam Composite (bottom layer only), ACFoam Supreme, ACFoam - 25 PSI, H-Shield Minimum 1.3" thick or tapered	N/A	N/A
Sarnatherm, Sarnatherm-25 PSI, ENRGY 3, ENRGY 3 Plus, ENRGY 3 PSI-25 Minimum 1.4" thick or tapered	N/A	N/A
DensDeck, DensDeck Prime Minimum: ¼ " Thick	N/A	N/A
Multi-Max FA-3, Multi-Max FA - 25 PSI, Thermarroof-3, Thermarroof Plus-3 Minimum: 1.25" Thick or tapered	N/A	N/A
High Density Wood Fiberboard Minimum: 1" Thick	N/A	N/A
ISO 95+ GL Minimum: 1.4" Thick or tapered	N/A	N/A
Ultra M-II Iso/glas Minimum: 1.2" Thick or tapered	N/A	N/A
Perlite Minimum: ¾" Thick	N/A	N/A

Note: All insulation require preliminary attachment prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft. and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 or Sikiplan 45 attached to deck as specified below.

Fastening: Sarnafasteners or SFS Fasteners with approved discs spaced 6" o.c. within the 5.5" side lap spaced 73" o.c. and sealed with a minimum 1.5" weld or Sarnafasteners with approved discs spaced 6" o.c. in rows 12' o.c. maximum, or Sarnabars spaced 12' o.c. maximum fastened with Sarnafasteners spaced 6 in. o.c., through the field of the membrane and covered with a 7" minimum width coverstrip with 1.5" welds on each side.

Maximum Design Pressure: -52.5 psf. (See General Limitation # 7)



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 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 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

