DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
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NOTICE OF ACCEPTANCE (NOA)

Carlisle Syntec, Inc.
1285 Ritner Highway
Carlisle, PA 17013

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 RER - 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. RER 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: Carlisle Sure-Flex Single Ply PVC 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 revises NOA# 11-0718.03 and consists of pages 1 through 7.
The submitted documentation was reviewed by Alex Tigera.

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Single Ply
Material:	PVC
Deck Type:	Recover
Maximum Design Pressure	See Specific System Assemblies

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product Name	Dimensions	Test Specifications	Product Description
Sure-Flex	various	TAS131	Reinforced white or colored PVC membrane.
FAST 100-LV Adhesive	various	TAS 110	Spray Polyurethane Adhesive
OlyBond 500 BA	various	TAS 110	Spray Polyurethane Adhesive
Low VOC PVC Bonding Adhesive CTM 20	various	TAS 110	Solvent-based bonding adhesive.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ACFoam Composite	Isocyanurate Insulation with perlite facer	Atlas Roofing Corp.
ACFoam II	Isocyanurate Insulation	Atlas Roofing Corp.
Polyisocyanurate HP, HP-N, HP-H, HP-W	Polyisocyanurate roof insulation.	Carlisle Syntec, Inc.
ISO 95+ GL, 95+ GW	Polyisocyanurate foam insulation	Firestone
Ultra/M-II	Isocyanurate Insulation	Homasote Co.
Hunter H-Shield NB	Polyisocyanurate roof insulation.	Hunter Panels
ENRGY 2, ENERGY 3, PSI-25	Isocyanurate Insulation	Johns Manville
Fesco Foam	Isocyanurate Insulation with perlite facer	Johns Manville
High Density Wood Fiberboard	High Density Wood Fiber insulation board.	Generic
Multi-Max, FA	Polyisocyanurate foam insulation	Rmax, Inc.
Structodeck	High Density Wood Fiber insulation board.	Wood Fiber Industries

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
N/A	N/A	N/A	N/A	N/A

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Description	Date
Factory Mutual Research Corp.	3021764	4470	01/11/06
	3009502	4470	12/21/00
	3014692	4470	08/05/03
Trinity ERD	C14040.03.12-R1	ASTM D 2196-99	03/28/12

APPROVED ASSEMBLIES

Membrane Type: Single Ply, Thermoplastic, PVC

Deck Type 7I: Recover

Deck Description: 2500 psi structural concrete.

System Type A(1): One or more layers of insulation adhered with approved asphalt, OlyBond 500 BA or FAST 100-LV Adhesive; Membrane fully adhered.

All General and System Limitations apply.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Polyisocyanurate HP-HNB, Hunter H-Shield NB Minimum 1.5" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft^2, OlyBond 500 BA Adhesive at minimum rate 1 gal/sq or FAST 100-LV Adhesive at a rate of 1.2 gal./sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Vapor Retarder: None.

Barrier: None.

Membrane: Sure-Flex, 50, 60 or 80 mil membrane fully adhered to the insulation using Low VOC PVC Bonding Adhesive CTM 20 applied to the substrate at a rate of 1 gal/60 ft.^{2}

Maximum Design Pressure: -180 psf (See General Limitation #9) with Fast 100-LV Adhesive
-120 psf (See General Limitation #9) with OlyBond 500 BA

Membrane Type: Single Ply, Thermoplastic, PVC

Deck Type 7I: Recover

Deck Description: 2500 psi structural concrete.

System Type A(2): One or more layers of insulation adhered with approved asphalt, OlyBond 500 BA or FAST 100-LV Adhesive; Membrane fully adhered.

All General and System Limitations apply.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
One of the following covered with the boards listed in Top Layer or Base or Top Layer.		
Dens Deck, Dens Deck Prime Minimum ¼" thick	**N/A**	**N/A**

Base or Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
One or more layers of the following as a Base or Top Layer or over the Base Layer listed above:		
ISO 95+ GL, Multi-Max FA, Polyisocyanurate HP, HP-H or HP-N Minimum 1.2" thick	**N/A**	**N/A**
ENRGY-3, ENRGY-2, PSI-25, UltraGard Gold Minimum 1.4" thick	**N/A**	**N/A**
ACFoam II, ACFoam Composite, Fesco Foam, Polyisocyanurate HP-W Minimum 1.5" thick	**N/A**	**N/A**
Structodeck Minimum ½" thick	**N/A**	**N/A**
High Density Fiberboard Minimum ¾" thick	**N/A**	**N/A**
Dens Deck, Dens Deck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft^2, OlyBond 500 BA Adhesive at minimum rate 1 gal/sq or FAST 100-LV Adhesive at a rate of 1.2 gal./sq. 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 used as a top layer shall be placed with the polyisocyanurate side facing down. Insulation can be adhered to the deck with Fast Adhesive.

Vapor Retarder: (Optional) Any UL of FMRC approved vapor Retarder applied to the roof deck or over a base layer of insulation.

Barrier: None.

Membrane: Sure-Flex, 50, 60 or 80 mil membrane fully adhered to the insulation using Low VOC PVC Bonding Adhesive CTM 20 applied to the substrate at a rate of 1 gal/60 ft.^{2}

Maximum Design Pressure:
-120 psf (For Gypsum board top layer) with OlyBond 500 BA (See General Limitation #9)
-120 psf (For Fiberboard top layer) with OlyBond 500 BA (See General Limitation #9)
-330 psf (DensDeck, DensDeck Prime) with Fast 100-LV Adhesive or Asphalt (See General Limitation #9)
-180 psf (HP Recovery Board) with Fast 100-LV Adhesive or Asphalt (See General Limitation #9)
-225 psf (Polyisocyanurate) with Fast 100-LV Adhesive or Asphalt (See General Limitation #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 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. 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