



**BUILDING CODE COMPLIANCE OFFICE (BCCO)  
PRODUCT CONTROL DIVISION**

**MIAMI-DADE COUNTY, FLORIDA  
METRO-DADE FLAGLER BUILDING  
140 WEST FLAGLER STREET, SUITE 1603  
MIAMI, FLORIDA 33130-1563  
(305) 375-2901 FAX (305) 375-2908**

**NOTICE OF ACCEPTANCE (NOA)**

**The Garland Company, Inc.  
3800 East 91<sup>st</sup> Street  
Cleveland, OH 44105-2197**

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

**DESCRIPTION: Garland SA Modified Bitumen Roof System Over Steel 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 new NOA consists of pages 1 through 8.  
The submitted documentation was reviewed by Jorge L. Acebo.



**NOA No.: 09-0205.03  
Expiration Date: 08/04/15  
Approval Date: 08/04/10  
Page 1 of 8**

## ROOFING ASSEMBLY NOTICE OF ACCEPTANCE

Category: Roofing  
Sub-Category: Modified Bitumen  
Material: SBS  
Deck Type: Steel  
Maximum Design Pressure -90 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>
HPR SA FR Base Sheet	39" x 51'	ASTM D 6163	SBS modified, fiberglass reinforced self-adhered base sheet.
StressPly SA FR Mineral	39" x 34'8"	ASTM D 6163, Grade G	SBS modified, fire retardant, fiberglass reinforced, mineral surfaced, self-adhering membrane.
GarMesh	6" x 150' 12" x 150'	ASTM D 1668	SBR coated woven fiberglass reinforcing membrane.
Flashing Bond, Ultra-Shield Flashing Cement, Ultra-Shield Plastic Roof Cement, Silver-Flash, Weatherking Flashing Adhesive	5 gallon	ASTM D 4586	Trowel grade, asphalt based roofing mastic for use in repair and patching against leaks in built-up asphalt roofs.
Garla-Brite	5 gallon	ASTM D 2824, Type I	Aluminum roof coating.
Ultra-Shield Built-Up Mastic FR, WeatherScreen	5, 55 gallon	ASTM D 4479, Type I	Asbestos-free, heavy-bodied, fiber-reinforced, fire-rated asphalt roof coating.
Energizer K Plus FR or Energizer FR	5, 55 gallon	ASTM D 4479, Type I	Multipurpose, rubberized, liquid waterproofing membrane.
Green-Lock Membrane Adhesive	5 gallon	Proprietary	Cold process roof coating and adhesive.
Garla-Prime, Garla-Prime WB, Ultra-Shield Primer	5, 55 gallon	ASTM D 41	Non-fibered, quick drying asphalt roof primer
Silver-Shield	5, 55 gallon	ASTM D 2824, Type III	High solids, aluminized roof coating.
Insul-Lock HR	1.5 liters	Proprietary	Polyurethane two component high rise insulation adhesive
Pyramic	5, 55 gallon		White acrylic reflective roof coating
Solex	5, 55 gallon	Proprietary	White kynar Reflective roof coating
White-Knight	5, 55 gallon		White urethane reflective roof coating.



NOA No.: 09-0205.03  
 Expiration Date: 08/04/15  
 Approval Date: 08/04/10  
 Page 2 of 8

**APPROVED INSULATIONS:**

<b>Product Name</b>	<b>Product Description</b>	<b>Manufacturer (With Current NOA)</b>
ACFoam II, ACFoam III	Polyisocyanurate foam insulation	Atlas Energy Products
H-Shield	Polyisocyanurate foam insulation	Hunter Panels, Inc.
ENRGY-3	Polyisocyanurate foam insulation	Johns Manville
Multi-Max FA-3	Polyisocyanurate foam insulation	RMax
SECUROCK®	Gypsum board	US Gypsum

**APPROVED FASTENERS:**

<b>Fastener Number</b>	<b>Product Name</b>	<b>Product Description</b>	<b>Dimensions</b>	<b>Manufacturer (With Current NOA)</b>
1.	Dekfast Fasteners #14 & #15	Insulation fastener for wood, steel and concrete decks		Construction Fasteners Inc.
2.	Omega	Insulation fastener for wood and steel		Construction Fasteners Inc.
3.	Dekfast Hex Plate	Galvalume hex stress plate.	2 7/8" x 3 1/4"	Construction Fasteners Inc.
4.	Dekfast Lock Plate	Polypropylene locking plate.	3" x 3 1/4"	Construction Fasteners Inc.
5.	#14 & #15 Roofgrip 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.	Olympic Fastener #14	Insulation fastener		OMG, Inc.
9.	Olympic CD-10	Insulation fastener for concrete deck.		OMG, Inc.
10.	Olympic Fluted Nail	Insulation fastener for concrete deck.		OMG, Inc.
11.	Olympic Fastener ASAP	Pre-assembled Insulation fastener and plate		OMG, Inc.
12.	Olympic Polypropylene	Polypropylene plastic plate	3.25" round	OMG, Inc.
13.	Olympic G-2	3.5" round galvalume AZ55 steel plate	3.5" round	OMG, Inc.
14.	Olympic Standard	3" round galvalume AZ50 steel plate	3" round	OMG, Inc.



**APPROVED FASTENERS:**

**TABLE 3**

<b>Fastener Number</b>	<b>Product Name</b>	<b>Product Description</b>	<b>Dimensions</b>	<b>Manufacturer (With Current NOA)</b>
15.	Insul-Fixx Fastener #14	Insulation fastener for concrete, steel and wood decks		SFS Stadler, Inc.
16.	System ES-1 #14	Pre-assembled Insulation fastener and plate		SFS Stadler, Inc.
17.	Insul-Fixx S Plate	3" round galvalume AZ50 steel plate	3" round	SFS Stadler, Inc.
18.	Insul-Fixx P Plate	3" round polyethylene stress plate	3" round	SFS Stadler, Inc.
19.	Tru-Fast HD	Insulation fastener for concrete, steel and wood decks		The Tru-Fast Corp.
20.	Tru-Fast Plates	3" round galvalume AZ55 steel plate	3" round	The Tru-Fast Corp.
21.	Tru-Fast Plates	Polyethylene plastic plate	3" round	The Tru-Fast Corp.
22.	Olympic HD Fastener	Insulation fastener for wood, steel and concrete.		OMG, Inc.
23.	Drill-Tec™ #15 XHD Fastener	Insulation fastener and Base Ply fastener for steel	various	GAF Materials Corp.
24.	Drill-Tec™ Standard Steel Plate	Galvalume coated steel membrane plate	2" -2-3/8"	GAF Materials Corp.

**EVIDENCE SUBMITTED:**

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Factory Mutual Research Corporation	3032021	FM 4470	8/25/08
Atlantic & Caribbean Roof Consulting, LLC	ACRC 07-085	TAS 114-J	04/22/08
	ACRC 08-005	TAS 114-J	04/23/08
	ACRC 08-027	TAS 114-J	04/23/08
Momentum Technologies, Inc.	AX18C9A	ASTM D6163	07/30/09
	AX18C9B	ASTM D6163	07/30/09
Trinity   ERD	C8500SC.11.07-R1	TAS 117 / ASTM D6862	08/07/09
	G31970.05.10	ASTM D4798 / TAS 110	05/04/10



NOA No.: 09-0205.03  
 Expiration Date: 08/04/15  
 Approval Date: 08/04/10  
 Page 4 of 8

**APPROVED ASSEMBLIES**

- Deck Type 2I:** Steel, Insulated
- Deck Description:** 18-22 ga. steel 1.5” Type B, G-90, steel deck attached to steel channel-framing joists. Steel supports spaced 6’ o.c. Deck fastened with 5/8” puddle welds one in each flute of the deck (but no less than 6” o.c.) and 12” o.c. the side laps with #12 self drilling screws.
- System Type B:** Base layer of insulation mechanically attached and second layer adhered in insulation adhesive.

All General and System Limitations apply.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> <u>Density/ft<sup>2</sup></u>
ACFoam II, ENRGY 3, H-Shield, Multi-Max FA-3 Minimum 1.5” thick	14 & 22	1:1.6

**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>Top Insulation Layer</u>	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> <u>Density/ft<sup>2</sup></u>
SECUROCK Minimum ½” thick	N/A	N/A

**Note: Top layer of insulation shall be adhered with Insul-Lock HR or Weathertite One Step Foamable Insulation Adhesive applied in ½”- ¾” wide ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as the top layer shall only be used as the top layer as the final membrane substrate.**

- Primer:** Prime Securock insulation board with ASTM D-41 asphalt primer at 1 gallon per square.
- Base/Ply Sheet:** One or more plies of HPR SA FR Base Sheet are self-adhered to top insulation layer.
- Membrane:** One ply of StressPly SA FR Mineral is self-adhered to the basesheets. .
- Surfacing:** Optional for StressPly SA FR Mineral. Apply as described below or any approved coatings:  
  
Minimum two coats of Garla-Brite applied at min. 0.5 gal/sq/coat, minimum two coats of Pyramic applied at min. 1.0 gal/sq/coat or minimum one coat of Pyramic applied at a min. 1.0 gal/sq and a minimum one coat of Solex applied at a min. 0.50 gal/sq.
- Maximum Design Pressure:** -45 psf (See General Limitation #7)



**Deck Type 2I:** Steel, Insulated

**Deck Description:** 18-22 ga. steel 1.5" Type B, G-90, steel deck attached to steel channel-framing joists. Steel supports spaced 6' o.c. Deck fastened with 5/8" puddle welds one in each flute of the deck (but no less than 6" o.c.) and 12" o.c. the side laps with #12 self drilling screws.

**System Type C(1):** All layers of insulation simultaneously attached.

**All General and System Limitations apply.**

<u>Base Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft<sup>2</sup></u>
ACFoam II, ENRGY 3, H-Shield, Multi-Max FA-3 Minimum 1.5" thick	N/A	N/A

**Note:** All layers shall be simultaneously fastened; see top layer below for fasteners and density.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft<sup>2</sup></u>
SECUROCK Minimum 1/2" thick	14 & 22	1:1.6

**Note:** All layers of insulation shall be mechanically attached using the fastener density listed above unless noted in the maximum design pressure. The 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. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Primer:** Prime Securock insulation board with ASTM D-41 asphalt primer at 1 gallon per square.

**Base/Ply Sheet:** One or more plies of HPR SA FR Base Sheet are self-adhered to top insulation layer.

**Membrane:** One ply of StressPly SA FR Mineral is self-adhered to the basesheets. .

**Surfacing:** Optional for StressPly SA FR Mineral. Apply as described below or any approved coatings:

Minimum two coats of Garla-Brite applied at min. 0.5 gal/sq/coat, minimum two coats of Pyramic applied at min. 1.0 gal/sq/coat or minimum one coat of Pyramic applied at a min. 1.0 gal/sq and a minimum one coat of Solex applied at a min. 0.50 gal/sq.

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



**Deck Type 2I:** Steel, Insulated  
**Deck Description:** 18-22 ga. steel 1.5" Type B, G-90, steel deck attached to steel channel-framing joists. Steel supports spaced 5' o.c. Deck fastened with 5/8" puddle welds one in each flute of the deck (but no less than 6" o.c.) and 12" o.c. the side laps with #12 self drilling screws.

**System Type C(2):** All layers of insulation simultaneously attached.

All General and System Limitations apply.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener Density/ft<sup>2</sup></u>
ACFoam II, ENRGY 3, H-Shield, Multi-Max FA-3 Minimum 1.5" thick	N/A	N/A

**Note:** All layers shall be simultaneously fastened; see top layer below for fasteners and density.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener Density/ft<sup>2</sup></u>
SECUROCK Minimum 1/4" thick	23 & 24	1:1

**Note:** All layers of insulation shall be mechanically attached using the fastener density listed above unless noted in the maximum design pressure. The 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. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Primer:** Prime SecuRock insulation board with Garland Garla-Prime 7612 primer at 1 gallon per square..

**Base/Ply Sheet:** One or more plies of HPR SA FR Base Sheet are self-adhered to top insulation layer.

**Membrane:** One ply of StressPly SA FR Mineral is self-adhered to the basesheets. .

**Surfacing:** Optional for StressPly SA FR Mineral. Apply as described below or any approved coatings:  
 Minimum two coats of Garla-Brite applied at min. 0.5 gal/sq/coat, minimum two coats of Pyramic applied at min. 1.0 gal/sq/coat or minimum one coat of Pyramic applied at a min. 1.0 gal/sq and a minimum one coat of Solex applied at a min. 0.50 gal/sq.

**Maximum Design Pressure:** -90 psf (See General Limitation #7)



## STEEL 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 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; calculations shall be signed and sealed by a Florida Registered Engineer, 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 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.: 09-0205.03  
Expiration Date: 08/04/15  
Approval Date: 08/04/10  
Page 8 of 8