



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

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208
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www.miamidade.gov/economy

Gaco a div. of Firestone Building Products Company, LLC
200 4th Ave. South
Nashville, TN 37201

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: GacoRoofFoam™ over Steel Decks.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city and state of manufacturing facility, 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. 18-1030.03 and consists of pages 1 through 11.

The submitted documentation was reviewed by Jorge L. Acebo.



NOA No.: 23-0405.08
Expiration Date: 05/31/28
Approval Date: 06/29/23
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ROOFING SYSTEM APPROVAL

<u>Category:</u>	Roofing
<u>Sub-Category:</u>	Spray Applied Polyurethane Roof System
<u>Materials:</u>	Polyurethane
<u>Deck Type:</u>	Steel
<u>Maximum Design Pressure:</u>	-105 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

<u>Product</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
GacoRoofFoam™ 2733	2.5 to 3.0 lbs./ft³ density	TAS 110	Polyurethane spray applied foam that utilizes an HFC blowing agent intended for roofing applications.
GacoFlex® A-31	3 coats, 3.75gal/100ft² min. total	ASTM D6083	Acrylic one-component elastomeric coating
GacoFlex® S-21	1 or 2 coats, 1.5gal/100ft² min. total	ASTM D6694	Silicone one-component, solvent-free, moisture-cured, elastomeric coating
GacoFlex® S-20	1 or 2 coats, 1.5gal/100ft² min. total	ASTM D6694	Silicone one-component, solvent-free, moisture-cured, elastomeric coating
GacoRoof® GR-16	1 or 2 coats, 2.0gal/100ft² min. total	ASTM D6694	Silicone one-component elastomeric coating
GacoFlex® S-10	1 or 2 coats, 2.2gal/100ft² min. total	ASTM D6694	Silicone one-component elastomeric coating
GacoFlex® S-42	1 or 2 coats, 1.25gal/100ft² min. total	ASTM D6694	Silicone one-component, solvent-free, moisture-cured, elastomeric coating
Firestone SBS Base	39.4" x 50'	ASTM D6163	Fiberglass reinforced, SBS modified bitumen ply with sanded surfaces.

APPROVED INSULATIONS:

TABLE 2

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
DensDeck Prime	Silicon treated gypsum	Georgia-Pacific Gypsum, LLC
ISO 95+ GL (flat or tapered)	Polyisocyanurate foam insulation	Firestone Bldg. Products Company, LLC.
GenFlex ISO Insulation (flat or tapered)	Polyisocyanurate foam insulation	GenFlex Roofing Systems

APPROVED FASTENERS/ADHESIVES:**TABLE 3**

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
1.	Firestone Insulation Fastening Plate	Insulation plate for use with Firestone Fasteners	3" round	Firestone Building Products Company, LLC.
2.	Firestone All-Purpose	Insulation and membrane fastener for the attachment of roofing insulation and base sheets	Various	Firestone Building Products Company, LLC.

EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Test Name/Report</u>	<u>Date</u>
PRI Construction Materials Technologies, LLC	GWI-045-02-01	ASTM D6083/Fed Spec TT-C-555B	07/21/17
	GWI-042-02-01	ASTM D6694/Fed Spec TT-C-555B	01/09/18
	GWI-044-02-01	ASTM D6694/Fed Spec TT-C-555B	01/09/18
	GWI-060-02-03.1	TAS 114 J	12/07/18
	GWI-067-02-01	FM 4474 / TAS 114 C	04/03/19
	FBP-141-02-01	FM 4474 / TAS 114 J	12/18/13
	GWI-071-02-01	ASTM D6694	09/12/19
UL LLC	348T0093	ASTM D6163 / TAS 110	02/15/21
	R5663	UL 790	03/08/23
	3023644	4470	02/02/07
FM Approvals	3052963	4470	10/21/14
	102219761MID-001	TAS 110 SPUF Physical Properties	07/22/15
Intertek	102206114MID-001	ASTM C273/D1622	07/22/15

DECK STRESS ANALYSIS CALCULATIONS/REPORTS

<u>Engineer/Agency</u>	<u>Identifier</u>	<u>Assemblies:</u>	<u>Date</u>
FM Approval Deck Limitations	N/A	A(1)	01/01/13
Zachary R. Priest, P.E.	Signed/Sealed Calculations	A(2), A(3), C(1), C(2)	12/07/18
		D(1)	02/08/16

APPROVED ASSEMBLIES:

Deck Type 2: Steel

Deck Description: Minimum 22 ga. (0.0281" thick), Type B-WR, Grade 33, FM approved painted or galvanized steel deck with maximum 6' spans secured to the min. ¼" thick steel deck supports with Buildex Tek's 5 fasteners 6" o.c. (every rib). Side laps secured with Buildex Tek's 1 fasteners at 30" o.c. Deck is washed with a trisodium phosphate (TSP) and water solution, rinsed and allowed to dry

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type A(1): Sprayed polyurethane foam applied directly to steel deck and covered with the specified Miami-Dade Approved roof coating.

All General and System Limitations apply.

Surface

Preparation: Metal surfaces should be primed according to the coating manufacturer's current published application instructions. Primer shall be thoroughly cured prior to application of foam.

For ferrous metal, remove loose rust and unsound primer from shop-primed iron and steel surfaces by scraping, wire brushing or sandblasting. Prime according to the coating manufacturer's current published application instructions. For non-ferrous metals, clean and prime aluminum, copper and stainless steel surfaces according to the coating manufacturer's current published application instructions.

Polyurethane Foam Application:

GacoRoofFoam™ 2733 shall be applied uniformly over the entire surface at the specified thickness in compliance with the requirements set forth in Roofing Application Standard RAS 109, but in no case shall it be less than 1 in. thick. The sprayed polyurethane foam shall be feathered at the edges to produce a smooth transition.

Protective Coating Application:

GacoFlex® A-31, GacoFlex® S-21, GacoFlex® S-20, GacoRoof® GR-16 GacoFlex® S-10 or GacoFlex® S-42 shall be applied according to the coating manufacturer's current published application instructions.

Polyurethane foam surface shall be free of moisture, dust, debris, oils, tars, grease or other materials that will impair adhesion of the protective coverings. Any damage or defects to the polyurethane foam surface shall be repaired prior to the coating application. The coating shall be applied the same day as the foam when possible. If more than 72 hours elapse prior to the application of the coatings, the polyurethane foam shall be inspected for UV degradation.

Maximum Design Pressure:

-105 psf. (See General Limitation # 6)

Deck Type 2: Steel

Deck Description: Minimum 22 ga., Type B, Grade 50 steel deck with maximum 6' spans secured to the supports with #12-24 HWH screws fastened to structural supports at each flute. Side laps secured with ¼'-14 x 7/8" HWH screws at 24" o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type A(2): Sprayed polyurethane foam applied directly to steel deck and covered with the specified Miami-Dade Approved roof coating.

All General and System Limitations apply.

Surface

Preparation: Metal surfaces should be primed according to the coating manufacturer's current published application instructions. Primer shall be thoroughly cured prior to application of foam.

For ferrous metal, remove loose rust and unsound primer from shop-primed iron and steel surfaces by scraping, wire brushing or sandblasting. Prime according to the coating manufacturer's current published application instructions. For non-ferrous metals, clean and prime aluminum, copper and stainless steel surfaces according to the coating manufacturer's current published application instructions.

Polyurethane Foam Application:

GacoRoofFoam™ 2733 shall be applied uniformly over the entire surface at the specified thickness in compliance with the requirements set forth in Roofing Application Standard RAS 109, but in no case shall it be less than 1 in. thick. The sprayed polyurethane foam shall be feathered at the edges to produce a smooth transition.

Protective Coating Application:

GacoFlex® A-31, GacoFlex® S-21, GacoFlex® S-20, GacoRoof® GR-16 GacoFlex® S-10 or GacoFlex® S-42 shall be applied according to the coating manufacturer's current published application instructions.

Polyurethane foam surface shall be free of moisture, dust, debris, oils, tars, grease or other materials that will impair adhesion of the protective coverings. Any damage or defects to the polyurethane foam surface shall be repaired prior to the coating application. The coating shall be applied the same day as the foam when possible. If more than 72 hours elapse prior to the application of the coatings, the polyurethane foam shall be inspected for UV degradation.

Maximum Design Pressure:

-105 psf. (See General Limitation #6)

Deck Type 2: Steel

Deck Description: Minimum 22 ga., Type B, Grade 33 steel deck with maximum 6' spans secured to the supports with 5/8" diameter puddle welds welded to structural supports at each flute. Side laps secured with 1/4"-14 x 7/8" HWH screws at 24" o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type A(3): Sprayed polyurethane foam applied directly to steel deck and covered with the specified Miami-Dade Approved roof coating.

All General and System Limitations apply.

Surface

Preparation: Metal surfaces should be primed according to the coating manufacturer's current published application instructions. Primer shall be thoroughly cured prior to application of foam.

For ferrous metal, remove loose rust and unsound primer from shop-primed iron and steel surfaces by scraping, wire brushing or sandblasting. Prime according to the coating manufacturer's current published application instructions. For non-ferrous metals, clean and prime aluminum, copper and stainless steel surfaces according to the coating manufacturer's current published application instructions.

Polyurethane Foam Application:

GacoRoofFoam™ 2733 shall be applied uniformly over the entire surface at the specified thickness in compliance with the requirements set forth in Roofing Application Standard RAS 109, but in no case shall it be less than 1 in. thick. The sprayed polyurethane foam shall be feathered at the edges to produce a smooth transition.

Protective Coating Application:

GacoFlex® A-31, GacoFlex® S-21, GacoFlex® S-20, GacoRoof® GR-16, GacoFlex® S-10 or GacoFlex® S-42 shall be applied according to the coating manufacturer's current published application instructions.

Polyurethane foam surface shall be free of moisture, dust, debris, oils, tars, grease or other materials that will impair adhesion of the protective coverings. Any damage or defects to the polyurethane foam surface shall be repaired prior to the coating application. The coating shall be applied the same day as the foam when possible. If more than 72 hours elapse prior to the application of the coatings, the polyurethane foam shall be inspected for UV degradation.

Maximum Design Pressure:

-75 psf. (See General Limitation #6)

Deck Type 2: Steel

Deck Description: Minimum 22 ga., Type B, Grade 40 steel deck with maximum 6' spans secured to the supports with #12-24 HWH screws fastened to structural supports at each flute. Side laps secured with ¼'-14 x 7/8" HWH screws at 24" o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type C(1): Sprayed polyurethane foam applied directly to thermal barrier and covered with the specified Miami-Dade Approved roof coating installed over a mechanically fastened thermal barrier.

All General and System Limitations apply.

Thermal Barrier: Min. ½" DensDeck Prime mechanically fastened to steel deck with 1-5/8" Firestone All-Purpose fasteners and Firestone Insulation Fastening Plates fastened at a rate of 20 fasteners per 4-ft x 8-ft board (1 fastener per 1.6 ft²).

Surface Preparation: Substrate shall be free of loose dirt, grease, oil or other contaminants prior to priming or foam application. Remove all loose dirt or debris by use of compressed air, vacuum or brooming. No washing shall be permitted. Oil, grease, release agents or other contaminants shall be removed with proper cleaning solutions.

Polyurethane Foam Application:

GacoRoofFoam™ 2733 shall be applied uniformly over the entire surface at the specified thickness in compliance with the requirements set forth in Roofing Application Standard RAS 109, but in no case shall it be less than 1 in. thick. The sprayed polyurethane foam shall be feathered at the edges to produce a smooth transition.

Protective Coating Application:

GacoFlex® A-31, GacoFlex® S-21, GacoFlex® S-20, GacoRoof® GR-16, GacoFlex® S-10 or GacoFlex® S-42 shall be applied according to the coating manufacturer's current published application instructions.

Polyurethane foam surface shall be free of moisture, dust, debris, oils, tars, grease or other materials that will impair adhesion of the protective coverings. Any damage or defects to the polyurethane foam surface shall be repaired prior to the coating application. The coating shall be applied the same day as the foam when possible. If more than 72 hours elapse prior to the application of the coatings, the polyurethane foam shall be inspected for UV degradation.

Maximum Design Pressure:

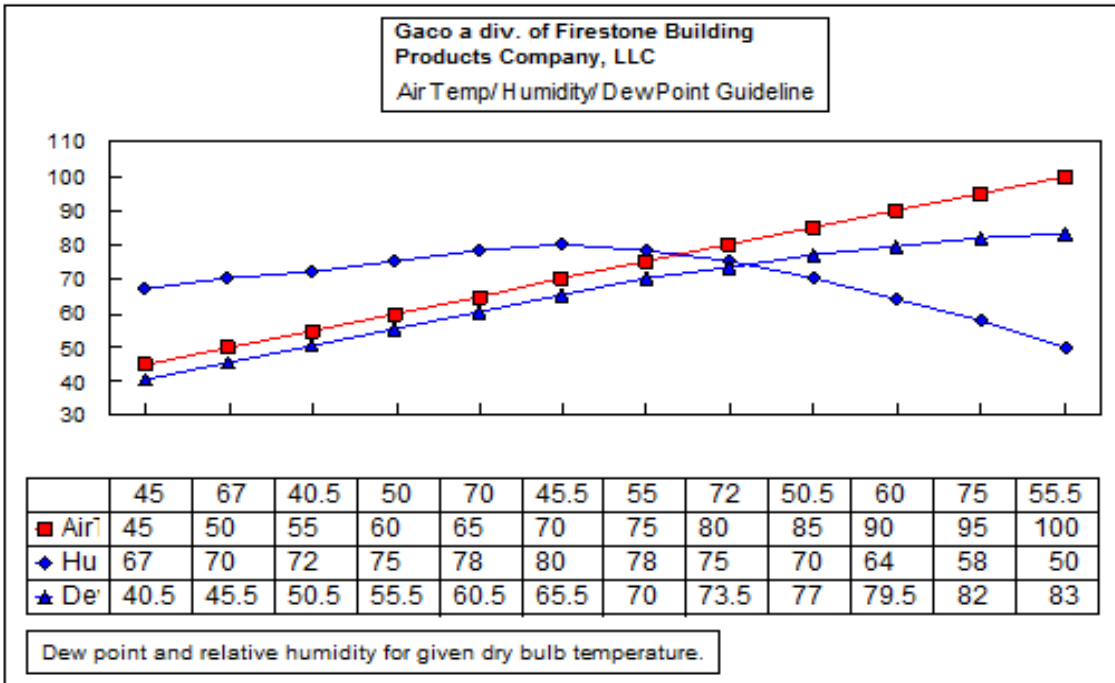
-97.5 psf. (See General Limitation #7)

Deck Type 2:	Steel
Deck Description:	<p>Minimum 22 ga., Type B, Grade 33 steel deck with maximum 6' spans secured to the supports with 5/8" diameter puddle welds welded to structural supports at each flute. Side laps secured with 1/4"-14 x 7/8" HWH screws at 24" o.c.</p> <p>This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.</p>
System Type C(2):	Sprayed polyurethane foam applied directly to thermal barrier and covered with the specified Miami-Dade Approved roof coating installed over a mechanically fastened thermal barrier.
All General and System Limitations apply.	
Thermal Barrier:	Min. 1/2" DensDeck Prime mechanically fastened to steel deck with 1-5/8" Firestone All-Purpose fasteners and Firestone Insulation Fastening Plates fastened at a rate of 20 fasteners per 4-ft x 8-ft board (1 fastener per 1.6 ft ²).
Surface Preparation:	Substrate shall be free of loose dirt, grease, oil or other contaminants prior to priming or foam application. Remove all loose dirt or debris by use of compressed air, vacuum or brooming. No washing shall be permitted. Oil, grease, release agents or other contaminants shall be removed with proper cleaning solutions.
Polyurethane Foam Application:	GacoRoofFoam™ 2733 shall be applied uniformly over the entire surface at the specified thickness in compliance with the requirements set forth in Roofing Application Standard RAS 109, but in no case shall it be less than 1 in. thick. The sprayed polyurethane foam shall be feathered at the edges to produce a smooth transition.
Protective Coating Application:	<p>GacoFlex® A-31, GacoFlex® S-21, GacoFlex® S-20, GacoRoof® GR-16, GacoFlex® S-10 or GacoFlex® S-42 shall be applied according to the coating manufacturer's current published application instructions.</p> <p>Polyurethane foam surface shall be free of moisture, dust, debris, oils, tars, grease or other materials that will impair adhesion of the protective coverings. Any damage or defects to the polyurethane foam surface shall be repaired prior to the coating application. The coating shall be applied the same day as the foam when possible. If more than 72 hours elapse prior to the application of the coatings, the polyurethane foam shall be inspected for UV degradation.</p>
Maximum Design Pressure:	-75 psf. (See General Limitation #7)

Deck Type 7:	Steel
Deck Description:	<p>Minimum 22 ga., Type B, Grade 33 steel deck with maximum 6' spans secured to the supports with #12-24 HWH screws fastened to structural supports at each flute. Side laps secured with ¼'-14 x 7/8" HWH screws at 24" o.c.</p> <p>This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.</p>
System Type D(1):	Sprayed polyurethane foam applied directly to anchor sheet over insulated steel deck and covered with the specified Miami-Dade Approved roof coating installed over a mechanically fastened anchor sheet.
All General and System Limitations apply.	
Insulation:	ISO 95+ GL (flat or tapered) or GenFlex ISO Insulation (flat or tapered), min. 1-inch, loose-laid.
Anchor Sheet:	One ply of Firestone SBS Base sheet, mechanically fastened to the deck as described below:
Fastening:	Attach anchor sheet using approved Firestone All-Purpose Fasteners and Insulation Fastening Plates spaced 12" o.c. in the 3.4" side laps and 12" o.c. in two staggered rows in the field of the sheet.
Surface Preparation:	Substrate shall be free of loose dirt, grease, oil or other contaminants prior to priming or foam application. Remove all loose dirt or debris by use of compressed air, vacuum or brooming. No washing shall be permitted. Oil, grease, release agents or other contaminants shall be removed with proper cleaning solutions.
Polyurethane Foam Application:	<p>GacoRoofFoam™ 2733 shall be applied uniformly over the entire surface at the specified thickness in compliance with the requirements set forth in Roofing Application Standard RAS 109, but in no case shall it be less than 1 in. thick. The sprayed polyurethane foam shall be feathered at the edges to produce a smooth transition.</p>
Protective Coating Application:	<p>GacoFlex® A31, GacoFlex® S-21, GacoFlex® S-20, GacoRoof® GR-16, GacoFlex® S-10 or GacoFlex® S-42 shall be applied according to the coating manufacturer's current published application instructions.</p> <p>Polyurethane foam surface shall be free of moisture, dust, debris, oils, tars, grease or other materials that will impair adhesion of the protective coverings. Any damage or defects to the polyurethane foam surface shall be repaired prior to the coating application. The coating shall be applied the same day as the foam when possible. If more than 72 hours elapse prior to the application of the coatings, the polyurethane foam shall be inspected for UV degradation.</p>
Maximum Design Pressure:	-60 psf. (See General Limitation #7.)

TABLE 1
AMBIENT HUMIDITY APPLICATION LIMITS
SPRAYED POLYURETHANE FOAM

Gaco a div. of Firestone Building
Products Company, LLC
 Air Temp/ Humidity/ Dew Point Guideline



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. Spray polyurethane foam shall not be sprayed when ambient temperature is within 5 degrees of the dew point. Ambient humidity applications limits shall be as listed in Table 1 herein. Contractor shall monitor and record environmental conditions in the Job Log in compliance with RAS 109. Job Log shall be maintained at the job site and accessible to The Building Official.
3. Flashings and waterproof coverings for expansion joints shall be of compatible materials and according to the sprayed polyurethane foam manufacture's published literature.
4. Miscellaneous materials such as adhesives, elastomeric caulking compounds, metal, vents and drains shall be a composite part of the roof system and shall be compatible with the foam and coating.
5. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and the wind load requirements of applicable building code.
6. 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).
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

END OF THIS ACCEPTANCE

