MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786)315-2590 F (786) 315-2599
www.miamidade.gov/economy

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

NOTICE OF ACCEPTANCE (NOA)

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 Recover 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. 18-1030.04 and consists of pages 1 through 26.
The submitted documentation was reviewed by Jorge L. Acebo.

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Spray Applied Polyurethane Roof System
Materials:	Polyurethane
Deck Type:	Recover
Maximum Design Pressure:	- 502.5 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

Product	Dimensions	Test Specifications	Product Description
GacoRoofFoam 2733	N/A	TAS 110	Polyurethane spray applied foam that utilizes an HFC blowing agent intended for roofing applications.
GacoFlex® A-31	3 coats, 3.75gal/100ft^2 min. total	ASTM D6083	Acrylic one-component elastomeric coating
GacoFlex® S-21	1 or 2 coats, 1.5gal/100ft^2 min. total	ASTM D6694	Silicone one-component, solvent-free, moisture-cured, elastomeric coating
GacoFlex® S-20	1 or 2 coats, 1.5gal/100ft^2 min. total	ASTM D6694	Silicone one-component, solvent-free, moisture-cured, elastomeric coating
GacoFlex® S-42	1 or 2 coats, 1.25gal/100ft^2 min. total	ASTM D6694	Silicone one-component, solvent-free, moisture-cured, elastomeric coating
GacoRoof® GR-16	1 or 2 coats, 2.0gal/100ft^2 min. total	ASTM D6694	Silicone one-component elastomeric coating
GacoFlex® S-10	1 or 2 coats, 2.2gal/100ft^2 min. total	ASTM D6694	Silicone one-component elastomeric coating
GacoFlex® E-5320	N/A	Proprietary	Epoxy two-component general purpose primer.
Firestone MB Base	36" x 108'	ASTM D4601	Fiberglass reinforced base sheet; asphalt coated on both sides.
Firestone SBS Base	39.4" x 50’	ASTM D6163	Fiberglass reinforced, SBS modified bitumen ply with sanded surfaces.
Firestone SBS Premium Base	39.4" x 50'	ASTM D6163	Fiberglass reinforced SBS modified bitumen with sanded surfaces.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
DensDeck Prime	Silicon treated gypsum	Georgia-Pacific Gypsum, LLC
SECUROCK Gypsum-Fiber Roof Board	Rigid, gypsum-based board stock	United States Gypsum Corp.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
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.
3.	Firestone 1.8" Two-Piece Impact Nail	Base Ply fastening systems for lightweight concrete deck	Various	Firestone Building Products Company, LLC.

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Test Name/Report	Date
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-046-02-01	ASTM D93/D1644/D1475/D2196	05/24/17
	GWI-060-02-01	TAS 114 D	10/25/18
	GWI-057-02-02	TAS 114 D	08/16/18
	GWI-060-02-02	TAS 114 J	10/26/18
	GWI-060-02-03.1	TAS 114 J	12/07/18
	GWI-057-02-01.1	TAS 114 J	08/16/18
	GWI-067-02-01	FM 4474 / TAS 114 C	04/03/19
	GWI-067-02-02A	FM 4474 / TAS 114 D	04/03/19
	GWI-076-02-01	FM 4474 / TAS 114 J	04/03/19
	FBP-059-02-01.6	Various	03/15/18
	GWI-071-02-01	ASTM D6694	09/12/19
	FBP-104-02-01.1	FM 4474 / TAS 114 J	06/19/13
	FBP-141-02-01	FM 4474 / TAS 114 J	12/18/13
	FBP-271-02-01	FM 4474 / TAS 114 J	02/04/16
	FBP-283-02-02A	FM 4474 / TAS 114 J	05/02/16
	FBP-357-02-01	TAS 114 D	09/08/17
	GWI-060-02-04.1	FM 4474 / TAS 114 J	09/11/19
	GWI-075-02-02	FM 4474 / TAS 114 J	05/09/19
	348T0093	ASTM D6163 / TAS 110	02/15/21
UL LLC	R5663	UL 790	03/08/23
FM Approvals	3023644	4470	02/02/07
	3052963	4470	10/21/14
Intertek	102219761MID-001	TAS 110 SPUF Physical Properties	07/22/15
	102206114MID-001	ASTM C273/D1622	07/22/15
NEMO ETC LLC	4q-FBP-22-SSMBB-01.A	ASTM D6163	09/09/22

DECK STRESS ANALYSIS CALCULATIONS/REPORTS

Engineer/Agency	Identifier	Assemblies:	Date
FM Approval Deck Limitations	N/A	F(7)	01/01/13
Zachary R. Priest, P.E.	Signed/Sealed Calculations	C(1), C(2)	12/07/18
		D	02/08/16
		E(5)	02/04/16
		E(6)	05/02/16
		C(4)	09/11/19
		C(5)	05/09/19

APPROVED ASSEMBLIES:

Deck Type 7I: Recover

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. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 312 lbf. when tested with Firestone All Purpose installed through to the deck in accordance with TAS 105.

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

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

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 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: **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 7I: Recover

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 ¼'-14 x 7/8" HWH screws at 24" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 240 lbf. when tested with Firestone All Purpose installed through to the deck in accordance with TAS 105.

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

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

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 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: **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 #7)

Deck Type 7I: Recover

Deck Description: 19/32" or greater plywood or wood plank

System Type C(3): Sprayed polyurethane foam applied directly to thermal barrier over wood deck and covered with the specified Miami-Dade Approved roof coating.

Deck Attachment: In accordance with applicable Building Code, but in no case shall it be less than; #8 Ring shank nails spaced 6" o.c. at the field and the perimeter of the plywood sheet. With support members having a maximum spacing of 24" o.c. The above attachment method must be in addition to existing attachment. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 264 lbf. when tested with Firestone All Purpose installed through to the deck in accordance with TAS 105.

All General and System Limitations apply.

Thermal Barrier: Min. ½" thick DensDeck Prime, mechanically fastened to the wood deck as described below:

Fastening: Attach thermal barrier using approved 1-5/8" Firestone All Purpose Fasteners and Firestone Insulation Fastening Plates 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.

Primer: **GacoFlex® A-46,** shall be applied 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 1in. 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: -82.5 psf. (See General Limitation #7.)

Deck Type 7I: Recover

System Type C(4): Sprayed polyurethane foam applied directly to cover board mechanically fastened to lightweight concrete poured over steel deck and covered with the specified Miami-Dade Approved roof coating.

Deck Description: Min. 22 ga. Grade 33 Type B, steel deck installed over structural supports spaced 6 ft. o.c. with 5/8" diameter puddle welds at each flute. Deck side laps stitched 18" o.c. with 1/4'-14 x 7/8" HWH screws. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 240 lbf. when tested with Firestone All Purpose installed through to the deck in accordance with TAS 105.

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

All General and System Limitations apply.

Lightweight Concrete: Min. 460 psi Concrecel lightweight concrete poured over steel deck. Min. ¼" thick slurry coat followed by min. 1" thick EPS Holey Board and a min. 2" thick top coat.

Cover Board: Min. ½" thick SECUROCK Gypsum-Fiber Roof Board applied over a barrier membrane between the coverboard and the LWC.

Fastening: Attach cover board using approved Firestone All Purpose fasteners and Insulation Fastening Plates spaced at a rate of 16 fasteners per 4-ft x 8-ft board (1 fastener per 2 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 1in. 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: -60 psf. (See General Limitation #7.)

Deck Type 7I: Recover

System Type C(5):	Sprayed polyurethane foam applied directly to cover board mechanically fastened to lightweight concrete poured over steel deck and covered with the specified Miami-Dade Approved roof coating.
Deck Description:	Min. 22 ga. Grade 33 Type B, steel deck installed over structural supports spaced 6 ft. o.c. with 5/8" diameter puddle welds at each flute. Deck side laps stitched 18" o.c. with 1/4'-14 x 7/8" HWH screws. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 264 lbf. when tested with Firestone All Purpose installed through to the deck in accordance with TAS 105. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**

All General and System Limitations apply.

Lightweight Concrete:	Min. 520 psi Concrecel lightweight concrete poured over steel deck. Min. 1/8" thick slurry coat followed by min. 1" thick EPS Holey Board and a min. 2" thick top coat.
Cover Board:	Min. ½" thick DensDeck Prime applied over a barrier membrane between the coverboard and the LWC.
Fastening:	Attach cover board using approved Firestone Heavy Duty fasteners and Insulation Fastening Plates spaced 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 1in. 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:	-82.5 psf. (See General Limitation #7.)

Deck Type 7I: Recover

Deck Description: 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. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 120 lbf. when tested with Firestone All Purpose installed through to the deck in accordance with TAS 105.

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

System Type D: Sprayed polyurethane foam applied directly to anchor sheet over insulated steel deck and covered with the specified Miami-Dade Approved roof coating.

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 Firestone 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: **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 1in. 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: -60 psf. (See General Limitation #7.)

Deck Type 7: Recover

Deck Description: 19/32" or greater plywood or wood plank

System Type E(1): Sprayed polyurethane foam is applied to base sheet mechanically fastened over wood deck and covered with the specified Miami-Dade Approved roof coating.

Deck Attachment: In accordance with applicable Building Code, but in no case shall it be less than; #8 Ring shank nails spaced 6" o.c. at the field and the perimeter of the plywood sheet. With support members having a maximum spacing of 24" o.c. The above attachment method must be in addition to existing attachment. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 136 lbf. when tested with Firestone All Purpose installed through to the deck in accordance with TAS 105.

All General and System Limitations apply.

Anchor Sheet: One ply of Firestone MB Base sheet, mechanically fastened to the deck as described below:

Fastening: Attach anchor sheet using approved 1-5/8" Firestone All Purpose Fasteners and Firestone Insulation Fastening Plates spaced 12" o.c. in the 3" 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: **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 1in. 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: -67.5 psf. (See General Limitation #7.)

Deck Type 7: Recover

Deck Description: 19/32" or greater plywood or wood plank

System Type E(2): Sprayed polyurethane foam is applied to base sheet mechanically fastened over wood deck and covered with the specified Miami-Dade Approved roof coating installed over a mechanically fastened anchor sheet. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 136 lbf. when tested with Firestone All Purpose installed through to the deck in accordance with TAS 105.

Deck Attachment: In accordance with applicable Building Code, but in no case shall it be less than; #8 Ring shank nails spaced 6" o.c. at the field and the perimeter of the plywood sheet. With support members having a maximum spacing of 24" o.c. The above attachment method must be in addition to existing attachment.

All General and System Limitations apply.

Anchor Sheet: One ply of Firestone SBS Base sheet, mechanically fastened to the deck as described below:

Fastening: Attach anchor sheet using approved 1 5/8" Firestone All Purpose Fasteners and Firestone Insulation Fastening Plates spaced 12" o.c. in the 3" 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.

Primer: **GacoFlex® A-46,** shall be applied 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 1in. 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: -67.5 psf. (See General Limitation #7.)

Deck Type 7: Recover

Deck Description: 19/32" or greater plywood or wood plank. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 63 lbf. when tested with 0.120" x 1-1/4" ring shank roofing nails installed through to the deck in accordance with TAS 105.

System Type E(3): Sprayed polyurethane foam is applied to base sheet mechanically fastened over wood deck and covered with the specified Miami-Dade Approved roof coating.

Deck Attachment: In accordance with applicable Building Code, but in no case shall it be less than; #8 Ring shank nails spaced 6" o.c. at the field and the perimeter of the plywood sheet. With support members having a maximum spacing of 24" o.c. The above attachment method must be in addition to existing attachment.

All General and System Limitations apply.

Anchor Sheet: One ply of Firestone SBS Premium Base sheet, mechanically fastened to the deck as described below:

Fastening: Attach anchor sheet using approved 0.120" x 1-1/4" ring shank roofing nails with 1-5/8" diameter, 32 ga. tin tabs spaced 6" o.c. in the 3.5" side laps and 6" o.c. in three 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: **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 1in. 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: -82.5 psf. (See General Limitation #7.)

Deck Type 7: Recover

Deck Description: 19/32" or greater plywood or wood plank. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 63 lbf. when tested with 12 ga. x 1-1/4" ring shank roofing nails installed through to the deck in accordance with TAS 105.

System Type E(4): Sprayed polyurethane foam is applied to base sheet mechanically fastened over wood deck and covered with the specified Miami-Dade Approved roof coating.

Deck Attachment: In accordance with applicable Building Code, but in no case shall it be less than; #8 Ring shank nails spaced 6" o.c. at the field and the perimeter of the plywood sheet. With support members having a maximum spacing of 24" o.c. The above attachment method must be in addition to existing attachment.

All General and System Limitations apply.

Anchor Sheet: One ply of Firestone MB Base sheet, mechanically fastened to the deck as described below:

Fastening: Attach anchor sheet using approved 12 ga. x 1-1/4" ring shank roofing nails with 1-5/8" diameter, 32 ga. tin tabs spaced 9" o.c. in the 2" side laps and 9" o.c. in three 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: **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 1in. 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: -52.5 psf. (See General Limitation #7.)

Deck Type 7: Recover

Deck Description: Min. 22 ga. Grade 33, Type B steel deck attached to supports spaced 6 ft. o.c. or concrete deck. Steel deck attached at each flute with 5/8" diameter puddle welds. Side laps stitched 18" o.c. with #1/4" – 14 x 7/8" HWH screws. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 70 lbf. when tested with 1.8" Two-Piece Impact Nails installed through to the deck in accordance with TAS 105.

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

System Type E(5): Sprayed polyurethane foam applied to base sheet fastened over lightweight concrete poured over steel deck or concrete deck covered with the specified Miami-Dade Approved roof coating.

All General and System Limitations apply.

Lightweight Concrete: Min. 410 psi Celcore MF with Celcore HS Rheology Modifying Admixture poured over steel or concrete deck deck. Steel deck treated with Celcore S-1 prior to pouring the lightweight. Min. 1/4" thick slurry coat followed by min. 1" thick EPS Holey Board and a min. 2" thick top coat. Curing compound applied at a rate of 300 ft^2/gal. after setting of top coat.

Base Sheet: Firestone SBS Base with min. 3" wide side laps.

Fastening: Attached with Firestone 1.8" Two-Piece Impact Nails spaced 8" o.c. in the laps and 8" o.c. in two (2) equally spaced, staggered rows in the field.

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 1in. 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: -52.5 psf. (See General Limitation #7.)

Deck Type 7: Recover

Deck Description: Min. 22 ga. Grade 33, Type B steel deck attached to supports spaced 6 ft. o.c. or concrete deck. Steel deck attached at each flute with 5/8" diameter puddle welds. Side laps stitched 18" o.c. with #1/4" – 14 x 7/8" HWH screws. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 78 lbf. when tested with 1.8" Two-Piece Impact Nails installed through to the deck in accordance with TAS 105.

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

System Type E(6): Sprayed polyurethane foam applied to base sheet fastened over lightweight concrete poured over steel deck or concrete deck covered with the specified Miami-Dade Approved roof coating.

All General and System Limitations apply.

Lightweight Concrete: Min. 360 psi Celcore MF with Celcore HS Rheology Modifying Admixture poured over steel or concrete deck deck. Steel deck treated with Celcore S-1 prior to pouring the lightweight. Min. 1/4" thick slurry coat followed by min. 1" thick EPS Holey Board and a min. 2" thick top coat. Curing compound applied at a rate of 300 ft^2/gal. after setting of top coat.

Base Sheet: Firestone SBS Base with min. 3" wide side laps.

Fastening: Attached with Firestone 1.8" Two-Piece Impact Nails spaced 7" o.c. in the laps and 7" o.c. in two (2) equally spaced, staggered rows in the field.

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 1in. 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: -67.5 psf. (See General Limitation #7.)

Deck Type 7: Recover

Deck Description: Existing granule surfaced APP modified bituminous membrane roof over min. 2500 psi structural concrete deck or 22ga. ASTM A 653 G90 Grade 33, Type B steel deck.

System Type F(1): Sprayed polyurethane foam applied directly to an existing roof 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: -502.5 psf. over concrete deck (See General Limitation # 6)
-167.5 psf. over steel deck (See General Limitation # 6)

Deck Type 7: Recover

Deck Description: Existing sanded surfaced APP modified bituminous membrane roof over min. 2500 psi structural concrete deck or 22ga. ASTM A 653 G90 Grade 33, Type B steel deck.

System Type F(2): Sprayed polyurethane foam applied directly to an existing roof 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: -430 psf. over concrete deck (See General Limitation # 6)
-106.5 psf. over steel deck (See General Limitation # 6)

Deck Type 7: Recover

Deck Description: Existing granule surfaced SBS modified bituminous membrane roof over min. 2500 psi structural concrete deck or 22ga. ASTM A 653 G90 Grade 33, Type B steel deck.

System Type F(3): Sprayed polyurethane foam applied directly to an existing roof 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: -155 psf. over concrete deck (See General Limitation # 6)
-292.5 psf. over steel deck (See General Limitation # 6)

Deck Type 7: Recover

Deck Description: Existing sanded surfaced SBS modified bituminous membrane roof over min. 2500 psi structural concrete deck or 22ga. ASTM A 653 G90 Grade 33, Type B steel deck.

System Type F(4): Sprayed polyurethane foam applied directly to an existing roof 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: -502.5 psf. over concrete deck (See General Limitation # 6)
-162.5 psf. over steel deck (See General Limitation # 6)

Deck Type 7: Recover

Deck Description: Existing build-up roofing with flood coat and gravel surfacing over min. 2500 psi structural concrete deck or 22ga. ASTM A 653 G90 Grade 33, Type B steel deck.

System Type F(5): Sprayed polyurethane foam applied directly to an existing roof 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: -220 psf. over concrete deck (See General Limitation # 6)
-155 psf. over steel deck (See General Limitation # 6)

Deck Type 7: Recover

Deck Description: Existing build-up roofing with flood coat over min. 2500 psi structural concrete deck or 22ga. ASTM A 653 G90 Grade 33, Type B steel deck.

System Type F(6): Sprayed polyurethane foam applied directly to an existing roof 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, or 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: -135 psf. over concrete deck (See General Limitation # 6)
-90 psf. over steel deck (See General Limitation # 6)

Deck Type 7: Recover

Deck Description: Minimum 22 ga. (0.0281" thick), Type B-WR, Grade 33, steel deck with maximum 6' spans secured to the min. ¼" thick steel deck supports with Buildex Teks 5 fasteners 6" o.c. (every rib). Side laps secured with Buildex Teks 1 fasteners at 30" o.c.

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

System Type F(7): Sprayed polyurethane foam applied directly to an existing roof covered with the specified Miami-Dade Approved roof coating.

All General and System Limitations apply.

Deck Requirement: Existing roof shall be in compliance with applicable Building Code and Roofing Application Standard RAS 109.

Surface Preparation: Substrate shall be primed, if required, according to the foam manufacturer's current published application instructions, and 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.

Primers shall be applied, if required, according to their manufacturer's current published application. All primers must be thoroughly dry and cured prior to foam application.

Polyurethane Foam Application: Maximum 3" thick **GacoRoofFoam™ 2733** shall be applied directly and 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: -90 psf. (See General Limitation #6)

Deck Type 7: Recover

Deck Description: Min. 2500 psi structural concrete deck.

System Type F(8): Sprayed polyurethane foam applied directly to an existing roof and covered with the specified Miami-Dade Approved roof coating.

All General and System Limitations apply.

Surface Preparation: Existing roof shall be in compliance with applicable Building Code and Roofing Application Standard RAS 109.

Substrate shall be primed, if required, according to the foam manufacturer's current published application instructions and 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.

Primers shall be applied, if required, according to their manufacturer's current published application. All primers must be thoroughly dry and cured prior to foam application.

Polyurethane Foam Application: Maximum 3" thick **GacoRoofFoam™ 2733** shall be applied directly and 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 published application instructions.

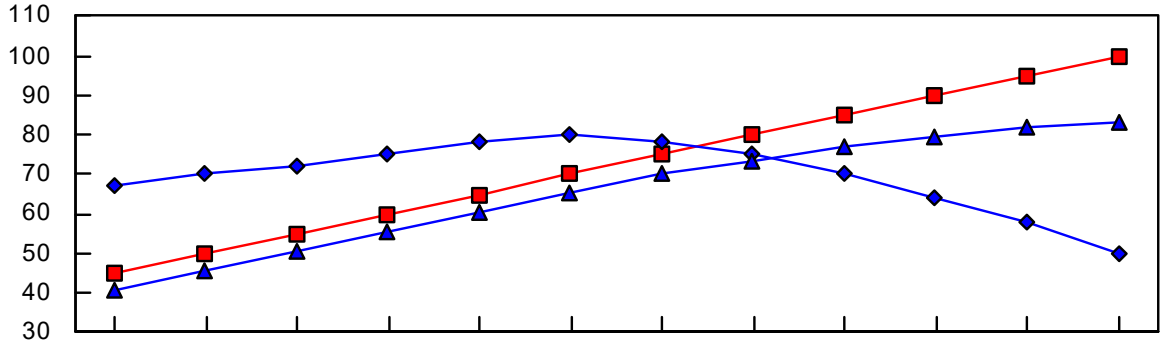
Polyurethane foam surface shall be free of moisture, dust, debris, oils, tars, grease or other materials that will impair adhesion of the protective coverings. Any damage or defects to the polyurethane foam surface shall be repaired prior to the coating application. The coating shall be applied the same 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: -90 psf. (See General Limitation #6)

TABLE 1
AMBIENT HUMIDITY APPLICATION LIMITS
SPRAYED POLYURETHANE FOAM

Gaco a div. of Firestone Building Products Company, LLC

Air Temp/ Humidity / Dew Point Guideline



	45	67	40.5	50	70	45.5	55	72	50.5	60	75	55.5
Air	45	50	55	60	65	70	75	80	85	90	95	100
Hu	67	70	72	75	78	80	78	75	70	64	58	50
De	40.5	45.5	50.5	55.5	60.5	65.5	70	73.5	77	79.5	82	83

Dew point and relative humidity for given dry bulb temperature.

RECOVER SYSTEM LIMITATIONS:

1. The moisture content of an existing roof system shall be in compliance with applicable Building Code.

2. Existing low slope roof systems shall be tested for uplift resistance in compliance with Testing Application Standard TAS 124 to the calculated design pressures of the field, perimeter and corner areas, determined in compliance with applicable Building Code.

3. Lightning rods shall be masked prior to foaming. Lightning rod cables shall not be embedded in the polyurethane foam and should be removed prior to foaming. Electrical and mechanical conduits should be relocated or raised above the finished roof surface.

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