MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING

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

CONTRACTOR LICENSING SECTION
(305) 375-2527 FAX (305) 375-2558

CONTRACTOR ENFORCEMENT DIVISION
(305) 375-2966 FAX (305) 375-2908

PRODUCT CONTROL DIVISION
(305) 375-2902 FAX (305) 372-6339

PRODUCT CONTROL NOTICE OF ACCEPTANCE

G.A.F. Materials Corporation
1361 Alps Road.
Wayne ,NJ 07470

Your application for Notice of Acceptance (NOA) of:
GAF Ruberoid Modified Bitumen Roof Systems for Lightweight Insulating Concrete Decks
under Chapter 8 of the Code of Miami-Dade County governing the use of Alternate Materials and Types of Construction, and completely described herein, has been recommended for acceptance by the Miami-Dade County Building Code Compliance Office (BCCO) under the conditions specified herein.

This NOA shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at any time from a jobsite or manufacturer's plant for quality control testing. If this product or material fails to perform in the approved manner, BCCO may revoke, modify, or suspend the use of such product or material immediately. BCCO reserves the right to revoke this approval, if it is determined by BCCO that this product or material fails to meet the requirements of the South Florida Building Code.

The expense of such testing will be incurred by the manufacturer.

ACCEPTANCE NO.: 01-0411.06
EXPIRES: 11/06/2003

Raul Rodriguez
Chief Product Control Division

THIS IS THE COVERSHEET, SEE ADDITIONAL PAGES FOR SPECIFIC AND GENERAL CONDITIONS
BUILDING CODE & PRODUCT REVIEW COMMITTEE

This application for Product Approval has been reviewed by the BCCO and approved by the Building Code and Product Review Committee to be used in Miami-Dade County, Florida under the conditions set forth above.

Francisco J. Quintana, R.A.
Director
Miami-Dade County
Building Code Compliance Office

APPROVED: 07/19/2001

ROOFING ASSEMBLY APPROVAL

Category: Roofing
Sub-Category: APP/SBS Modified Bitumen

Approval Date: **July 19, 2001**

Expiration Date: **November 6, 2003**

Deck Type: Lightweight Insulating Concrete
Maximum Design Pressure -112.50 psf
Fire Classification: See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

Product	Dimensions	Test Specification	Product Description
Matrix™ 307 Primer, (GAF Asphalt Concrete Primer)	5, 55 gallons	ASTM D 41	Asphalt concrete primer used to promote adhesion of asphalt in built-up roofing.
GAF Mineral Shield® Granules	60 lb. Bags & 100 lb. bags	ASTM D 1863	Granules for surfacing of exposed asphalt, cold process cement or emulsion. GAF Mineral Shield® Granules shall be used for flashing applications only.
Matrix 305 Fibered Emulsion, (GAF WeatherCoat® Emulsion)	5 gallons	ASTM 1227	Surface coating for smooth surfaced roofs.
Matrix™ System Pro Aluminum Roof Coating Fibered 301, (GAF Premium Fibered Aluminum Roof Coating)	1, 5 gallons	ASTM D 2824	Fibered aluminum coating.
Matrix™ Standard Wet/Dry Roof Cement 204, (GAF Jetblak All Weather Plastic Cement)	1, 5 gallons	ASTM D 3019 ASTM D 3409	Refined asphalt blended with a mineral stabilizer and fibers. Permits adhesion to wet and dry surfaces.
GAF Aluminum Emulsion	5 gallons		Mineral colloidial bituminous emulsion with reflective aluminum flakes.
Matrix™ System Pro Aluminum Roof Coating Non- Fibered 302, (GAF Aluminum Roof Paint)	5 gallons	ASTM D2824, Type I	Non-fibered. aluminum pigmented, asphalt roof coating.
GAF Built-Up Roofing Asphalt	100 lb. cartons, bulk	ASTM D312, Tpyes I, II, III and IV	Interply mopping and surfacing asphalt

Frank Zuloaga, RRC
Product Control Examiner

Product	Dimensions	Test Specification	Product Description
GAFGLAS #80 Ultima™ Base Sheet	1 meter (39.37") wide	ASTM D4601	Asphalt impregnated and coated, fiberglass base sheet.
GAFGLAS FlexPly™6	1 meter (39.37") wide	ASTM D 2178	Type VI asphalt impregnated glass felt with asphalt coating.
GAFGLAS Ply 4	1 meter (39.37") wide	ASTM D 2178	Type IV asphalt impregnated glass felt with asphalt coating.
GAFGLAS® Mineral Surfaced Cap Sheet	1 meter (39.37") wide	ASTM D 3909	Asphalt coated, glass fiber mat cap sheet surfaced with mineral granules.
GAFGLAS® Stratavent®-Eliminator™ Perforated	1 meter (39.37") wide	ASTM D3672 ASTM D 4897	Fiberglass base sheet coated on both sides with asphalt. Surfaced on the bottom side with mineral granules embedded in asphaltic coating. with factory perforation.
GAFGLAS® Stratavent®-Eliminator™ Nailable	1 meter (39.37") wide	ASTM D3672 ASTM D 4897	Fiberglass base sheet coated on both sides with asphalt. Surfaced on the bottom side with mineral granules embedded in asphaltic coating.
RUBEROID® SBS Heat-Weld™ Smooth	1 meter (39.37") wide	ASTM D-6164	Non-Woven Polyester mat coated with polymer modified asphalt and smooth surfaced.
RUBEROID® SBS Heat-Weld™ Granule	1 meter (39.37") wide	ASTM D-6164	Non-Woven Polyester mat coated with polymer modified asphalt and surfaced with mineral granules.
RUBEROID® SBS Heat-Weld™ 170 FR	1 meter (39.37") wide	ASTM D-6164	Non-Woven Polyester mat coated with fire retardant polymer modified asphalt and surfaced with mineral granules.
RUBEROID® SBS Heat-Weld™ PLUS	1 meter (39.37") wide	ASTM D-6164	Non-Woven Polyester mat coated with polymer modified asphalt and surfaced with mineral granules.
RUBEROID® SBS Heat-Weld PLUS FR	1 meter (39.37") wide	ASTM D-6164	Non-Woven Polyester mat coated with fire retardant polymer modified asphalt and surfaced with mineral granules.
RUBEROID® SBS Heat-Weld™ 25	1 meter (39.37") wide	ASTM D-6164	Non-Woven Polyester mat coated with polymer modified asphalt and smooth surfaced.
GAFTEMP Isotherm RA	various	PA 110	Polyisocyanurate foam insulation
GAFTEMP Isotherm RN	various	PA 110	Polyisocyanurate foam insulation
Permalite® Recover Board, (GAFTEMP)	1/2" thick	PA 110	Perlite recover board
GAFTEMP Composite RA	Various	PA 110	Polyisocyanurate/wood fiberboard composite

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Product Control Examiner

Product	Dimensions	Test Specification	Product Description
GAFTEMP Tapered Composite RA	Various	PA 110	Tapered Polyisocyanurate/wood fiberboard composite
GAFTEMP Composite RN	Various	PA 110	Polyisocyanurate/wood fiberboard composite
GAFTEMP Tapered Composite RN	Various	PA 110	Tapered Polyisocyanurate/wood fiberboard composite
GAFTEMP Tapered Isotherm R	Various	PA 110	Tapered isocyanurate foam
GAFTEMP Tapered Isotherm RA	Various	PA 110	Tapered isocyanurate foam
GAFTEMP Tapered Isotherm RN	Various	PA 110	Tapered isocyanurate foam
(GAFTEMP) Permalite®	Various	PA 110	Cut perlite board
GAFCANT™ (GAFTEMP) GAF Permalite GAFEDGE™ Tapered Edge Strip	Various	PA 110	Tapered perlite board
(GAFTEMP) PERMALITE® Tapered Roof Insulation	Various	PA 110	Tapered perlite board
(GAFTEMP) Permalite® Recover Board	1/2" thick, Various sizes	PA 110	Perlite board
GAFTEMP® Isotherm R	various	PA 110	Polyisocyanurate foam insulation.
GAFTEMP® Composite	various	PA 110	Polyisocyanurate foam insulation with high density fiberboard or Permalite perlite insulation.
GAFTEMP® Composite A	various	PA 110	Polyisocyanurate foam insulation with high density fiberboard or Permalite perlite insulation.
GAFTEMP® Composite N	various	PA 110	Polyisocyanurate foam insulation with high density fiberboard or Permalite perlite insulation.
(GAFTEMP®) BMCA Fiberboard	various	PA 110	Fiberboard insulation.
(GAFTEMP®) PERMALITE ®	various	PA 110	Perlite insulation board.
(GAFTEMP®) BMCA High Density Fiberboard	various	PA 110	High density wood fiberboard insulation.

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Product	Dimensions	Test Specification	Product Description
Drill-Tec 3" Steel Plate	3" Diameter	PA 114	Insulation stress plate
Drill-Tec 3-1/4" Plastic Plate	3-1/4" Diameter	PA 114	Insulation stress plate
Drill-Tec® Screws	#12 & #14, Various Lengths	PA 114	Insulation fasteners for steel, wood, and structural concrete decks
Drill-Tec ASAP Fastener	**Various Lengths**	**PA 114**	**Pre-assembled insulation screws and plates for steel, wood and structural concrete decks**
Drill-Tec, (GAFTITE®) Base Sheet Fastener and Plate	500 fasteners per box	PA 114	Base sheet fastening assembly.
NTB Fasteners		PA 114	Fastener for use in gypsum, tectum and lightweight insulating concrete decks.
Polypropylene Plates	3" and 3 ½"	PA 114	Round polypropylene stress plates
RUBEROID MOP Smooth	1 meter (39.37") wide	ASTM D5147 ASTM D6164	Non-woven polyester mat coated with polymer modified asphalt. Does not have a factory applied surfacing.
RUBEROID ULTRACLAD® SBS	1 meter (39.37") wide	ASTM D5147 ASTM D6298	Woven fiberglass mat coated with polymer modified asphalt and surfaced with aluminum, copper or stainless steel foil.
RUBEROID MOD Asphalt	60 lb. kegs	ASTM D 312	SEBS modified asphalt
RUBEROID MOD Asphalt L	60 lb. kegs	ASTM D 312	SEBS modified asphalt
RUBEROID MOD Asphalt P	60 lb. kegs	ASTM D 312	SEBS modified asphalt
RUBEROID® Modified Base Sheet	1 meter (39.37") wide	ASTM D4601 Type II, Type G2 BUR	Premium glass fiber reinforced SBS-modified base sheet.
Ruberoid® Mop Granule	1 meter (39.37") wide	ASTM D 5147 ASTM D-6222	Non-woven polyester mat coated with polymer modified asphalt and surfaced with mineral granules.
Ruberoid® Torch Smooth	1 meter (39.37") wide	ASTM D-6222 ASTM D 5147	Heavy duty, polyester reinforced, asphalt modified bitumen membrane.
Ruberoid® Torch 1	1 meter (39.37") wide	ASTM D-6222 ASTM D 5147	Heavy duty, polyester reinforced, asphalt modified bitumen membrane.
Ruberoid® 170 FR torch	1 meter (39.37") wide	ASTM D-6222 ASTM D 5147	Heavy duty, polyester reinforced, asphalt modified bitumen membrane.
Ruberoid® Torch Plus (Granule)	1 meter (39.37") wide	ASTM D-6222 ASTM D 5147	Heavy duty, polyester reinforced, asphalt modified bitumen membrane.
Ruberoid® Torch Granule	1 meter (39.37") wide	ASTM D-6222 ASTM D 5147	Asphalt impregnated, coated felt, surfaced with mineral granules.

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Product	Dimensions	Test Specification	Product Description
Ruberoid® Torch FR	1 meter (39.37") wide	ASTM D-6222 ASTM D 5147	Non-woven polyester mat coated with fire retardant polymer modified asphalt surfaced with mineral granules.
Ruberoid® Mop Plus (Granule)	1 meter (39.37") wide	ASTM D-6164 ASTM D 5147	Non-woven polyester mat coated with polymer modified asphalt and surfaced with mineral granules.
Ruberoid® Mop FR	1 meter (39.37") wide	ASTM D-6164 ASTM D 5147	Non-woven polyester mat coated with fire-retardant, polymer modified asphalt surfaced with mineral granules.
Ruberoid® 20	1 meter (39.37") wide	ASTM D-6163 ASTM D 5147	SBS modified asphalt base sheet reinforce with a glass fiber mat.
Ruberoid® 30	1 meter (39.37") wide	ASTM D-6163 ASTM D 5147	Non woven fiberglass mat coated with polymer modified asphalt and surfaced with mineral granules.
Ruberoid® 30 FR	1 meter (39.37") wide	ASTM D-6163 ASTM D 5147	Non woven fiberglass mat coated with fire retardant, polymer modified asphalt and surfaced with mineral granules.
Ruberoid® Mop 170 FR	1 meter (39.37") wide	ASTM D-6164 ASTM D 5147	Non-woven polyester mat coated with fire retardant polymer modified asphalt surfaced with mineral granules.
TopCoat® Surface Seal SB (Matrix)	5 gallons		Surface coating for smooth surfaced and mineral surfaced roofs.
GAF WeatherCote® MB+(Matrix)	5 gallons		Surface coating for smooth surfaced and mineral surfaced roofs.
TopCoat MB+	5 gallons		Surface coating for smooth surfaced and mineral surfaced roofs.
Matrix™ WeatherCote™	5 gallons		Surface coating for smooth surfaced and mineral surfaced roofs.
Matrix Low VOC	5 gallons		Surface coating for smooth surfaced and mineral surfaced roofs.
Matrix 101 System Pro SBS Adhesive	5 gallons	ASTM D3019	Cold Applied Modified SEBS Asphalt Adhesive
(Ruberoid®MB) Matrix 201 System Por SBS Flashing	5 gallons	ASTM D3019	Cold Applied Modified SEBS Asphalt Adhesive – Flashing Grade.
(Ruberoid®MB) Matrix 102 Select SBS Adhesive	5 gallons	ASTM D3019	Cold Applied Modified SEBS Asphalt Adhesive.
(Ruberoid®MB) Matrix 202 Select SBS Flashing	5 gallons	ASTM D4586	Cold Applied Modified SEBS Asphalt Adhesive – Flashing Grade.
Matrix 203 Standard Plastic Cement	5 gallons	ASTM D4586	Standard Plastic Asphalt Roofing Cement
Matrix 213 Gun Grade Plastic Cement	5 gallons	ASTM D4586	Standard Plastic Asphalt Roofing Cement Caulk Grade.

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Product	Dimensions	Test Specification	Product Description
Matrix 103 Cold Adhesive	5 gallons	ASTM D3019	Cold Applied Asphalt Adhesive.
Matrix 303 Select Fibered Aluminum	5 gallons	ASTM D 2824	Fibered aluminum coating.
Matrix 304 Select Non-Fibered	5 gallons	ASTM D2824, Type I	Non-fibered. aluminum pigmented, asphalt roof coating.
Vent Stacks (metal and plastic)		PA 100(A) ASTM D 1929 ASTM D 635	One way valve vent used to relieve built-up pressure within the roof system. GAF Vent Stacks are available in metal or plastic

TRADE NAMES OF PRODUCTS MANUFACTURED BY OTHERS:

Product	Dimensions	Test Specification	Product Description	Manufacturer
Pyrox	various	PA 110	Polyisocyanurate foam insulation	Apache Products Co. (with current PCA)
ACFoam I	various	PA 110	Polyisocyanurate foam insulation	Atlas Energy Products (with current PCA)
ACFoam II	various	PA 110	Polyisocyanurate foam insulation	Atlas Energy Products (with current PCA)
Celcore		PA 110	Cellular insulating concrete system	Celcore, Inc. (with current PCA)
TPR		PA 114	Titanium fastener for lightweight, gypsum and tectum decks	Creative Construction Components (with current PCA)
Elastizell		PA 110	Cellular insulating concrete system	Elastizell Corp. (with current PCA)
Zonocel		PA 110	Cellular insulating concrete system	Siplast Corp. (with current PCA)
Celcore		PA 110	Cellular insulating concrete system	Celcore Inc.
Mearlcrete		PA 110	Cellular insulating concrete system	Cellular Concrete LLC Mearlcrete Div. (with current PCA)
FM-30, FM-45, FM-60, FM-90 Fasteners		PA 114	Base ply fastening systems for lightweight concrete decks	ES Products, Inc. (with current PCA)
Nail-Tite Type 'A'		PA 114	Galvanized steel base ply fastener for lightweight concrete decks	ES Products, Inc. (with current PCA)

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Product	Dimensions	Test Specification	Product Description	Manufacturer
Nail-Tite Type 'R'		PA 114	Galvanized steel base ply fastener for lightweight concrete decks	ES Products, Inc. (with current PCA)
ISO 95+ Composite	various	PA 110	Polyisocyanurate / perlite ridged insulation	Firestone (with current PCA)
Asphalt		ASTM D 312	Type III or IV Hot asphalt bitumin adhesive	generic
Asphalt Primer		ASTM D 41	Asphalt Primer	generic
EPS	various	PA 110	Extruded polystyrene insulation	generic
High Density Wood Fiberboard	various	PA 110	Wood fiber insulation board	generic
Pelite/Urethane Composite	various	PA 110	Perlite / urethane composite board insulation	generic
Perlite Insulation	various	PA 110	Perlite insulation board	generic
Polyethylene	4 mil min.		Vapor barrier / Air barrier	generic
Red Rosin	various		Rosin paper for barrier layer on wood decks	generic
Roofing Nails	Minimum # 12	PA 114	Corrosion resistant annular ring shank nails	generic
Tin Caps	Min. 32 ga. x $1^5/_8$"		Corrosion resistant circular discs.	generic
Type X Gypsum	various		Fire resistant rated gypsum	Generic
Type X Gypsum	various		Fire resistant rated gypsum	Generic
al MB aluminum roof coating		PA 121	Aluminum roof coating	Grundy Industries (with current PCA)
Dens-Deck	various	PA 110	Gypsum insulation board.	Georgia Pacific (with current PCA)
Gripdek Fastener	various	PA 114	Insulation fastener	ITW Buildex (with current PCA)
Hexcel Fastener	various	PA 114	Insulation fastener	ITW Buildex (with current PCA)
Hextra	Various	PA 114	Insulation fastener and metal or plastic plate	ITW Buildex (with current PCA)
Standard Plastic Plate	3" round	PA 114	Polyolefin plastic plate	ITW Buildex (with current PCA)
ISO 95+	Various	PA 110	Polyisocyanurate foam insulation	International Permalite (with current PCA)
E'NRG'Y-2	Various	PA 110	Polyisocyanurate foam insulation	Johns Manville Insulation Co. (with current PCA)
ISORoc	various	PA 110	Polyisocyanurate foam / rockwool composite insulation	Johns Manville Insulation Co. (with current PCA)

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Product	Dimensions	Test Specification	Product Description	Manufacturer
Con-Tite	Various	PA 114	Conctrete deck insulation fastener	Olympic Manufacturing Group, Inc. (with current PCA)
N.T.B. Magnum	Various	PA 114	Glass reinforced nylon fastener for use in gypsum and cementitious wood fiber decks.	Olympic Manufacturing Group, Inc. (with current PCA)
N.T.B. Spin Weld Plate	2" round	PA 114	2" round amorphorus nylon locking plate for use with N.T.B. fasteners with 1" head	Olympic Manufacturing Group, Inc. (with current PCA)
N.T.B. Plastic Plate	3" round	PA 114	3" round polypropylene stress plate for use with N.T.B. fasteners	Olympic Manufacturing Group, Inc. (with current PCA)
N.T.B. Plate	3" round	PA 114	3" round galvalume AZ55 plate for use with N.T.B. fasteners	Olympic Manufacturing Group, Inc. (with current PCA)
Olympic CR Base Felt Fastener and Base Sheet Disc	various	PA 114	Insulation fastener assembly for Base Sheet fastening only	Olympic Manufacturing Group, Inc. (with current PCA)
GlasFast Fastener	Various	PA 114	Insulation fastener assembly with recessed plastic plate	Owens-Corning Fiberglas Corp. (with current PCA)
GlasFast/Striker	Various	PA 114	Insulation fastener assembly and metal plate for use over concrete decks	Owens-Corning Fiberglas Corp. (with current PCA)
Paroc Base Board	Various	PA 110	Rockwool insulation	Partek, Inc. (with current PCA)
Paroc Cap Board	various	PA 110	Rockwool insulation	Partek, Inc. (with current PCA)
Multi-Max	various	PA 110	Polyisocyanurate foam insulation	Rmax, Inc. (with current PCA)
Multi-Max FA	various	PA 110	Polyisocyanurate foam insulation	Rmax, Inc. (with current PCA)
UltraGard	various	PA 110	Polyisocyanurate foam insulation	Johns Manville Insulation Co. (with current PCA)
Insulcel		PA 110	Cellular insulating concrete system	Siplast (with current PCA)

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Product	Dimensions	Test Specification	Product Description	Manufacturer
Structodeck	various	PA 110	High density wood fiber	Wood Fiber Industries (with current PCA)

EVIDENCE SUBMITTED:

Test Agency/Identifier	Name	Report	Date
Factory Mutual Research Corporation	Current Insulation Attachment Requirements	FMRC 1996	01.01.96
Factory Mutual Research Corporation	Wind Uplift FMRC 4470 - PA 114	J.I. 1V8A4.AM	06.28.93
Factory Mutual Research Corporation	Wind Uplift FMRC 4470 - PA 114	J.I. 3X3A2.AM	08.02.94
Factory Mutual Research Corporation	Wind Uplift FMRC 4470 - PA 114	J.I. 0Y9Q5.AM	07.29.94
Factory Mutual Research Corp.	Wind Uplift, FMRC 4470 - PA 114	J.I. 0D0A8.AM	07.09.97
Factory Mutual Research Corp.	Wind Uplift, FMRC 4470 - PA 114	J.I. 2B8A4.AM	07.02.97
Factory Mutual Research Corp.	Wind Uplift, FMRC 4470 - PA 114	J.I. 3005640	11.09.00
Factory Mutual Research Corp.	Wind Uplift, FMRC 4470 - PA 114	J.I. 3006845	10.17.00
Factory Mutual Research Corp.	Wind Uplift, FMRC 4470 - PA 114	J.I. 3005175	05.23.00
Factory Mutual Research Corp.	Wind Uplift, FMRC 4470 - PA 114	J.I. 3005177	05.19.00
Factory Mutual Research Corp.	Wind Uplift, FMRC 4470 - PA 114	J.I. 3007500	06.15.00
Factory Mutual Research Corp.	Wind Uplift, FMRC 4470 - PA 114	J.I. 3008178	12.27.00
Independent Roof Testing & Consulting of South Florida	PA 114, Appendix "J"	IRT Reference No.00001, No.00002	03.30.00
Exterior Research & Design, LLC Trinity Engineering	PA 114	#4483.04.97-1	06-06-97
Underwriters Laboratories, Inc.	Fire Resistance Classification UL 790 - PA 114	R1306, 00NK07638	07.17.00

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APPROVED SYSTEMS:

Membrane Type: APP

Deck Type: Lightweight Concrete, Non-insulated, (See System Limitations)

Deck Description: Cellular or aggregate lightweight concrete

System Type E-1: Base sheet mechanically attached.

All General and System Limitations shall apply.

Base Sheet: Install one ply of Gafglas® #75 Base Sheet, Gafglas #80 Ultima™ Base Sheet or Gafglas Stratavent®-Eliminator™ Nailable mechanically fastened as described below.

Fasteners: Gaftite (Drill-Tec) assembled CTD base ply fasteners, FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners at a fastener spacing of 9" o.c. at the 2" wide side laps and 9" o.c. in two equally spaced rows in the field of the base sheet.

Ply Sheet: (Optional, required when using Ruberoid 20) one or more plies of Gafglas® PLY 4®, Gafglas® FlexPly 6 ply sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..

Membrane: One ply of Ruberoid® Torch Smooth, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule or Ruberoid® Torch FR torch, Ruberoid Torch 1,Ruberoid® 170 FR torch applied according to manufacturer's application instructions.

Surfacing: (Optional) Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..
2. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq. (Torch Smooth applications only)
3. GAF Weathercote® MB+, Applied at 1 to 1.5 gal./sq..
4. Top Coat® Surface Seal SB, Applied at 1 to 1.5 gal./sq..

Maximum Design Pressure: -45 psf (See General Limitation #7)

Maximum Fire Classification: See General Limitation #1.

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Membrane Type: APP

Deck Type : Lightweight Concrete, Non-insulated (See Systems Limitations)

Deck Description: Cellular or aggregate lightweight concrete

System Type E-1: Base sheet mechanically attached.

All General and System Limitations shall apply.

Base Sheet: Install one ply of Gafglas® #75 Base Sheet, Gafglas #80 Ultima ™ Base Sheet or Gafglas Stratavent®-Eliminator™ Nailable mechanically fastened as described below.

Fasteners: Gaftite (Drill-Tec) assembled CTD base ply fasteners, FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners at a fastener spacing of 7" o.c. at the 3" wide side laps and 7" o.c. in two equally spaced rows in the field of the base sheet.

Ply Sheet: (Optional, required when using Ruberoid 20) one or more plies of Gafglas ® PLY 4®, Gafglas ® FlexPly 6 ply sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..

Membrane: One ply of Ruberoid® Torch Smooth, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule or Ruberoid® Torch FR torch, Ruberoid Torch 1,Ruberoid® 170 FR torch applied according to manufacturer's application instructions.

Surfacing: (Optional) Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..

5. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq. (Torch Smooth applications only)

6. GAF Weathercote® MB+, Applied at 1 to 1.5 gal./sq..

7. Top Coat® Surface Seal SB, Applied at 1 to 1.5 gal./sq..

Maximum Design Pressure: -75 psf (See General Limitation #7)

Maximum Fire Classification: See General Limitation #1.

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Membrane Type: SBS – Hot Asphalt Applied or Cold Applied Matrix Adhesive

Deck Type: Lightweight Concrete, Non-insulated (See Systems Limitations)

Deck Description: Cellular, Mearlcrete Cellular Lightweight Insulating Concrete

System Type E-1: Base sheet mechanically attached.

All General and System Limitations shall apply.

Base Sheet: Install one ply of Gafglas ® #75 Base Sheet, Gafglas #80 Ultima™ Base Sheet or Gafglas Stratavent®-Eliminator™ Nailable mechanically fastened as described below.

Fasteners: Gaftite (Drill-Tec) assembled CTD base ply fasteners, FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners at a fastener spacing of 9" o.c. at the 2" wide sidelaps and 9" o.c. in two equally spaced rows in the field of the base sheet.

Ply Sheet: Optional one or more, plies of Ruberoid 20, Gafglas ® PLY 4®, Gafglas FlexPly 6 ply sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or Matrix 101 Pro SBS Adhesive or Matrix 102 Select SBS Adhesive at 1 to 2 gal./sq.

Membrane: One or more plies of Ruberoid MOP Smooth, Ruberoid® Mop 170 FR, Ruberoid® Mop Granule, Ruberoid 20, Ruberoid® Mop Plus Granule, Ruberoid® 30 or Ruberoid® 30 FR or Ruberoid® Mop FR or (Ruberoid UltraClad™ SBS adhered in hot asphalt only) adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or with Matrix 101 Pro SBS Adhesive or Matrix 102 Select SBS Adhesive at 1 to 2 gal./sq.

Surfacing: (Optional, required if Ruberoid MOP Smooth or Ruberoid 20 is top membrane)
Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..
2. Gafglas Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 25 lb./sq. ± 15%.
3. GAF Weathercote® MB+, at 1 to 1.5 gal./sq..
4. Top Coat® Surface Seal, Applied at 1 to 1.5 gal./sq..

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

Maximum Fire Classification: See General Limitation #1.

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Product Control Examiner

Membrane Type: SBS – Hot Asphalt Applied or Cold Applied Matrix Adhesive

Deck Type: Lightweight Concrete, Non-insulated (See System Limitation)

Deck Description: Cellular or aggregate lightweight concrete

System Type E-1: Base sheet mechanically attached.

All General and System Limitations shall apply.

Base Sheet: Install one ply of Gafglas ® #75 Base Sheet, Gafglas #80 Ultima™ Base Sheet or Gafglas Stratavent®-Eliminator™ Nailable mechanically fastened as described below.

Fasteners: Gaftite (Drill-Tec) assembled CTD base ply fasteners, FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners at a fastener spacing of 9" o.c. at the 2" wide sidelaps and 9" o.c. in two equally spaced rows in the field of the base sheet.

Ply Sheet: Optional one or more, plies of Ruberoid 20, Gafglas ® PLY 4®, Gafglas FlexPly 6 ply sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or Matrix 101 Pro SBS Adhesive or Matrix 102 Select SBS Adhesive at 1 to 2 gal./sq.

Membrane: One or more pli Ruberoid es of Ruberoid MOP Smooth, Ruberoid® Mop 170 FR, Ruberoid® Mop Granule, RUBRIC 20, Ruberoid® Mop Plus Granule, Ruberoid® 30 or Ruberoid® 30 FR or Ruberoid® Mop FR or (Ruberoid UltraClad™ SBS adhered in hot asphalt only) adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or with Matrix 101 Pro SBS Adhesive or Matrix 102 Select SBS Adhesive at 1 to 2 gal./sq.

Surfacing: (Optional, required if Ruberoid MOP Smooth or Ruberoid 20 is top membrane)
Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..
2. Gafglas Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 25 lb./sq. ± 15%.
3. GAF Weathercote® MB+, at 1 to 1.5 gal./sq..
4. Top Coat® Surface Seal, Applied at 1 to 1.5 gal./sq..

Maximum Design Pressure: -45 psf (See General Limitation #7)

Maximum Fire Classification: See General Limitation #1.

Frank Zuloaga, RRC
Product Control Examiner

Membrane Type: SBS – Hot Asphalt Applied or Cold Applied Matrix Adhesive

Deck Type: Lightweight Concrete, Non-insulated (See System Limitations)

Deck Description: Cellular or aggregate lightweight concrete

System Type E-1: Base sheet mechanically attached.

All General and System Limitations shall apply.

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet, GAFGLAS #80 Ultima™ Base Sheet or GAFGLAS Stratavent®-Eliminator™ Nailable mechanically fastened as described below.

Fasteners: Gaftite (Drill-Tec) assembled CTD base ply fasteners, FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners at a fastener spacing of 7" o.c. at the 3" wide sidelaps and 7" o.c. in two equally spaced rows in the field of the base sheet.

Ply Sheet: Optional one or more, plies of Ruberoid 20, Gafglas ® PLY 4®, Gafglas ® FlexPly 6 ply sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or Matrix 101 Pro SBS Adhesive or Matrix 102 Select SBS Adhesive at 1 to 2 gal./sq.

Membrane: One or more plies of Ruberoid MOP Smooth, Ruberoid® Mop 170 FR, Ruberoid® Mop Granule, Ruberoid 20, Ruberoid® Mop Plus Granule, Ruberoid® 30 or Ruberoid® 30 FR or Ruberoid® Mop FR or (Ruberoid UltraClad™ SBS adhered in hot asphalt only) adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or with Matrix 101 Pro SBS Adhesive or Matrix 102 Select SBS Adhesive at 1 to 2 gal./sq.

Surfacing: (Optional, required if Ruberoid MOP Smooth or Ruberoid 20 is top membrane)
Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..
2. Gafglas Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 25 lb./sq. ± 15%.
3. GAF Weathercote® MB+, at 1 to 1.5 gal./sq..
4. Top Coat® Surface Seal, Applied at 1 to 1.5 gal./sq..

Maximum Design Pressure: -75 psf (See General Limitation #7)

Maximum Fire Classification: See General Limitation #1.

Frank Zuloaga, RRC
Product Control Examiner

Membrane Type: SBS – Heat Weld

Deck Type : Lightweight Concrete, Non-insulated (See System Limitations)

Deck Description: Cellular or aggregate lightweight concrete

System Type E-1: Base sheet mechanically attached.

All General and System Limitations shall apply.

Base Sheet: Install one ply of Gafglas® #75 Base Sheet, Gafglas #80 Ultima ™ Base Sheet or Gafglas Stratavent®-Eliminator™ Nailable mechanically fastened as described below.

Fasteners: Gaftite (Drill-Tec) assembled CTD Base Ply fasteners, FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners at a fastener spacing of 9" o.c. at the 2" wide side laps and 9" o.c. in two equally spaced rows in the field of the base sheet.

Ply Sheet: Optional Ruberoid® SBS Heat-Weld™ Smooth, Ruberoid® SBS Heat-Weld™ 25.

Membrane: Ruberoid® SBS Heat-Weld™ Smooth, Ruberoid® SBS Heat-Weld™ FR, Ruberoid® SBS Heat-Weld™ Plus FR, Ruberoid® SBS Heat-Weld™ 25, Ruberoid® SBS Heat-Weld™ Granule, Ruberoid® SBS Heat-Weld™ 170 FR, Ruberoid® SBS Heat-Weld™ Plus FR

Surfacing: Optional: Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..
2. Gafglas Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 25 lb./sq. + 15%.
3. GAF Weathercote® MB+, at 1 to 1.5 gal./sq..
4. Top Coat® Surface Seal, Applied at 1 to 1.5 gal./sq..

Maximum Design Pressure: -45 psf (See General Limitation #7)

Maximum Fire Classification: See General Limitation #1.

Frank Zuloaga, RRC
Product Control Examiner

Membrane Type: SBS – Heat Weld

Deck Type : Elastizel Cellular lightweight concrete (See System Limitation)

Deck Description: Min. 22 ga. steel deck placed over 0.25 in. thick structural steel supports spaced max. 6 ft o.c. attached with 5/8" puddle welds and washers spaced max. 6 in. o.c. at every flute. Side laps secured with #10 TEK screws fastened at a max. of 18 in o.c.

System Type E-1: Base sheet mechanically attached.

All General and System Limitations shall apply.

Base Sheet: Install one ply of Gafglas ® #75 Base Sheet, Gafglas #80 Ultima ™ Base Sheet or Gafglas Stratavent®-Eliminator™ Nailable mechanically fastened as described below.

Fasteners: Gaftite (Drill-Tec) assembled CTD Base Ply fasteners, spaced one row 7" o.c. in the 3" wide side laps and 7" o.c. in two equally spaced rows in the field of the sheet.

Ply Sheet: Optional Ruberoid® SBS Heat-Weld™ Smooth, Ruberoid® SBS Heat-Weld™ 25 torched applied.
Or,
Optional one or more plies of Ruberoid 20, Gafglas ® PLY 4®, Gafglas ® PLY 6® or Gafglas FlexPly 6 ply sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..

Membrane: One or more plies of Ruberoid MOP Smooth, Ruberoid® Mop 170 FR, Ruberoid® Mop Granule, Ruberoid® Mop Plus Granule, Ruberoid® 20, Ruberoid® 30 or Ruberoid® 30 FR or Ruberoid® Mop FR or Ruberoid UltraClad™ SBS in adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..
Or
Ruberoid® SBS Heat-Weld™ Smooth, Ruberoid® SBS Heat-Weld™ FR, Ruberoid® SBS Heat-Weld™ Plus FR, Ruberoid® SBS Heat-Weld™ 25, Ruberoid® SBS Heat-Weld™ Granule, Ruberoid® SBS Heat-Weld™ 170 FR, Ruberoid® SBS Heat-Weld™ Plus FR

Surfacing: Optional: Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..
2. Gafglas Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 25 lb./sq. + 15%.
3. GAF Weathercote® MB+, at 1 to 1.5 gal./sq..
4. Top Coat® Surface Seal Applied at 1 to 1.5 gal./sq..

Maximum Design Pressure: -82.5psf (See General Limitation #7)

Maximum Fire Classification: See General Limitation #1.

Frank Zuloaga, RRC
Product Control Examiner

Membrane Type: SBS – Heat Weld

Deck Type : Elastizel Cellular lightweight concrete (See System Limitation)

Deck Description: Min. 22 ga. steel deck placed over 0.25 in. thick structural steel supports spaced max. 5 ft o.c. attached with 5/8" puddle welds and washers spaced max. 6 in. o.c. at every flute. Side laps secured with #10 TEK screws fastened at a max. of 24 in o.c.

System Type E-1: Base sheet mechanically attached.

All General and System Limitations shall apply.

Base Sheet: Install one ply of Ruberoid® SBS Heat-Weld™ Smooth, Ruberoid® SBS Heat-Weld™ Granule, Ruberoid® Mop Smooth, Ruberoid® Mop Granules (Inverted) with granular surfaced face down against the deck with 4" heat welded side lap, mechanically fastened as described below.

Fasteners: Gaftite #12 [Drill-Tec #12] fastener with 3" steel plate, fastened 12"o.c. in the 4" heat welded side lap and screwed through the lightweight concrete into the deck. With two additional rows of fasteners spaced 12" o.c. in the field of the sheet.

Ply Sheet: Optional Ruberoid® SBS Heat-Weld™ Smooth, Ruberoid® SBS Heat-Weld™ 25 torched applied, or Ruberoid® Mop Smooth adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..

Membrane: Ruberoid® SBS Heat-Weld™ Smooth, Ruberoid® SBS Heat-Weld™ FR, Ruberoid® SBS Heat-Weld™ Plus FR, Ruberoid® SBS Heat-Weld™ 25, Ruberoid® SBS Heat-Weld™ Granule, Ruberoid® SBS Heat-Weld™ 170 FR, Ruberoid® SBS Heat-Weld™ Plus FR or Ruberoid UltraClad™ SBS.
Or
One or more plies of Ruberoid MOP Smooth, Ruberoid® Mop 170 FR, Ruberoid® Mop Granule, Ruberoid® Mop Plus Granule, Ruberoid® 30 or Ruberoid® 30 FR or Ruberoid® Mop FR or Ruberoid UltraClad™ SBS in adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..

Surfacing: Optional: Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..
2. Gafglas Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 25 lb./sq. ± 15%.
3. GAF Weathercote® MB+, at 1 to 1.5 gal./sq..
4. Top Coat® Surface Seal, Applied at 1 to 1.5 gal./sq..

Maximum Design Pressure: -97.5psf (See General Limitation #7)

Maximum Fire Classification: See General Limitation #1.

Frank Zuloaga, RRC
Product Control Examiner

Membrane Type: SBS

Deck Type : Elastizel (II Special Mix) min 350 psi. mix, with Zell-Crete fibers and Zell-Erator curing sealer.

Deck Description: Min. 22 ga. steel deck placed over 0.25 in. thick structural steel supports spaced max. 5 ft o.c. attached with 5/8" puddle welds and washers spaced max. 5 in. o.c. at every flute. Side laps shall be secured with #10 TEK screws fastened at a max. spacing of 15 in. o.c.

System Type E-1: Base sheet Spot attached.

All General and System Limitations shall apply.

Primed Deck: Deck is primed with ASTM D-41 Asphalt primer 1 to 2 gal./sq..

Base Sheet: Install one ply of Gafglas Stratavent®-Eliminator™ Perforated laid Dry over deck.

Ply Sheet: Optional one or more plies of Ruberoid 20, Ruberoid MOP Smooth, Gafglas ® PLY 4® or Gafglas FlexPly™ 6 ply sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..

Membrane: One or more plies of Ruberoid Mop Smooth, Ruberoid® Mop 170 FR, Ruberoid® Mop Granule, Ruberoid® Mop Plus Granule, Ruberoid® 20, Ruberoid® 30 or Ruberoid® 30 FR or Ruberoid® Mop FR or Ruberoid UltraClad™ SBS in adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..

Surfacing: (Optional, required if Ruberoid MOP Smooth or Ruberoid 20 is top membrane) Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..
2. Gafglas Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 25 lb./sq. + 15%.
3. GAF Weathercote® MB+, at 1 to 1.5 gal./sq..
4. Top Coat® Surface Seal, Applied at 1 to 1.5 gal./sq..

Maximum Design Pressure: -112.5 psf (See General Limitation #9)

Maximum Fire Classification: See General Limitation #1.

Frank Zuloaga, RRC
Product Control Examiner

Membrane Type: SBS – Heat Weld

Deck Type : Lightweight Concrete, (See System Limitation)

Deck Description: Cellular or aggregate lightweight concrete

System Type E-1: Base sheet mechanically attached.

All General and System Limitations shall apply.

Base Sheet: Install one ply of Gafglas ® #75 Base Sheet, Gafglas #80 Ultima™ Base Sheet or Gafglas Stratavent®-Eliminator™ Nailable mechanically fastened as described below.

Fasteners: Gaftite (Drill-Tec) assembled CTD base ply fasteners, FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners at a fastener spacing of 7" o.c. at the 3" wide side laps and 7" o.c. in two equally spaced rows in the field of the base sheet.

Ply Sheet: Optional Ruberoid® SBS Heat-Weld™ Smooth, Ruberoid® SBS Heat-Weld™ 25.

Membrane: Ruberoid® SBS Heat-Weld™ Smooth, Ruberoid® SBS Heat-Weld™ FR, Ruberoid® SBS Heat-Weld™ Plus FR, Ruberoid® SBS Heat-Weld™ 25, Ruberoid® SBS Heat-Weld™ Granule, Ruberoid® SBS Heat-Weld™ 170 FR, Ruberoid® SBS Heat-Weld™ Plus FR

Surfacing: Optional: Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..
2. Gafglas Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 25 lb./sq. + 15%.
3. GAF Weathercote® MB+, at 1 to 1.5 gal./sq..
4. Top Coat® Surface Seal, Applied at 1 to 1.5 gal./sq..

Maximum Design Pressure: -75 psf (See General Limitation #7)

Maximum Fire Classification: See General Limitation #1.

Frank Zuloaga, RRC
Product Control Examiner

Membrane Type: APP

Deck Type: Lightweight Concrete, (See System Limitation)

Deck Description: Cellular or aggregate lightweight concrete

System Type E-2: Base sheet mechanically attached.

All General and System Limitations shall apply.

Base Sheet: Install one ply of Gafglas ® #75 Base Sheet, Gafglas #80 Ultima™ Base Sheet or Gafglas Stratavent®-Eliminator™ Nailable mechanically fastened as described below.

Fasteners: Gaftite (Drill-Tec) assembled CTD base ply fasteners, FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners at a fastener spacing of 12" o.c. at the 2" wide sidelaps and 9" o.c. in three equally spaced rows in the field of the base sheet.

Ply Sheet: (Optional, required when using Ruberoid 20) one or more plies of Ruberoid 20, Gafglas ® PLY 4® or Gafglas FlexPly™ 6 ply sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..

Membrane: One ply of Ruberoid® Torch Smooth, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule, Ruberoid Torch 1 or Ruberoid® Torch FR torch applied according to manufacturer's application instructions.

Surfacing: (Optional) Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..
2. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq. (Torch Smooth applications only)
3. GAF Weathercote® MB+, at 1 to 1.5 gal./sq..
4. Top Coat® Surface Seal, Applied at 1 to 1.5 gal./sq..

Maximum Design Pressure: -45 psf (See General Limitation #7)

Maximum Fire Classification: See General Limitation #1.

Frank Zuloaga, RRC
Product Control Examiner

Membrane Type: SBS

Deck Type: Lightweight Concrete, Non-insulated, (See System Limitation)

Deck Description: Cellular or aggregate lightweight concrete

System Type E-2: Base sheet mechanically attached.

All General and System Limitations shall apply.

Base Sheet: Install one ply of Gafglas ® #75 Base Sheet, Gafglas #80 Ultima™ Base Sheet or Gafglas Stratavent®-Eliminator™ Nailable mechanically fastened as described below.

Fasteners: Gaftite (Drill-Tec) assembled CTD base ply fasteners, FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners at a fastener spacing of 12" o.c. at the 2" wide sidelaps and 9" o.c. in three equally spaced rows in the field of the base sheet.

Ply Sheet: Optional one or more plies of Ruberoid 20, Gafglas® PLY 4®, Gafglas ® FlexPly 6 ply sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..

Membrane: One or more plies of Ruberoid MOP Smooth, Ruberoid® Mop 170 FR, Ruberoid® Mop Granule, Ruberoid 20, Ruberoid® Mop Plus Granule, Ruberoid® 30 or Ruberoid® 30 FR or Ruberoid® Mop FR or (Ruberoid UltraClad™ SBS adhered in hot asphalt only) adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or with Matrix 101 Pro SBS Adhesive or Matrix 102 Select SBS Adhesive at 1 to 2 gal./sq.

Surfacing: (Optional, required if Ruberoid MOP Smooth or Ruberoid 20 is top membrane) Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..
2. GAFGLAS Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 25 lb./sq. + 15%.
3. GAF Weathercote® MB+, at 1 to 1.5 gal./sq..
4. Top Coat® Surface Seal, Applied at 1 to 1.5 gal./sq..

Maximum Design Pressure: -45 psf (See General Limitation #7)

Maximum Fire Classification: See General Limitation #1.

Frank Zuloaga, RRC
Product Control Examiner

Membrane Type: APP / SBS HEAT WELD

Deck Type: Lightweight Concrete, Non-insulated, (See System Limitation)

Deck Description: Cellular, Mearlcrete Cellular Lightweight Insulating concrete

System Type E-3: Base sheet mechanically attached.

All General and System Limitations shall apply.

Base Sheet: Install one ply of Gafglas ® #75 Base Sheet, Gafglas #80 Ultima™ Base Sheet or Gafglas Stratavent®-Eliminator™ Nailable mechanically fastened as described below.

Fasteners: Gaftite (Drill-Tec) assembled CTD base ply fasteners, FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners at a fastener spacing of 7" o.c. at the 3" wide side laps and 7" o.c. in two equally spaced rows in the field of the base sheet.

Ply Sheet: (Optional, required when using Ruberoid 20) one or more plies of Ruberoid 20, Gafglas ® PLY 4® or Gafglas FlexPly™ 6 ply sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..

Membrane: One or more plies of Ruberoid® Torch Smooth, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule, Ruberoid Torch 1 or Ruberoid® Torch FR torch applied according to manufacturer's application instructions.
Or,
Ruberoid® SBS Heat-Weld™ Smooth, Ruberoid® SBS Heat-Weld™ FR, Ruberoid® SBS Heat-Weld™ Plus FR, Ruberoid® SBS Heat-Weld™ 25, Ruberoid® SBS Heat-Weld™ Granule, Ruberoid® SBS Heat-Weld™ 170 FR, Ruberoid® SBS Heat-Weld™ Plus FR, Ruberoid UltraClad™ SBS

Surfacing: (Optional) Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..
2. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq. (Torch Smooth applications only)
3. GAF Weathercote® MB+, at 1 to 1.5 gal./sq..
4. Top Coat® Surface Seal, Applied at 1 to 1.5 gal./sq..

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

Maximum Fire Classification: See General Limitation #1.

Frank Zuloaga, RRC
Product Control Examiner

Membrane Type: APP / SBS HEAT WELD

Deck Type: Lightweight Concrete, Non-insulated, New and Tear Off Construction

Deck Description: Cellular or aggregate lightweight concrete

System Type E-3: Base sheet mechanically attached.

All General and System Limitations shall apply.

Base Sheet: Install one ply of Gafglas® #75 Base Sheet, Gafglas #80 Ultima™ Base Sheet or Gafglas Stratavent®-Eliminator™ Nailable mechanically fastened as described below.

Fasteners: Gaftite (Drill-Tec) assembled CTD base ply fasteners, FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners at a fastener spacing of 7" o.c. at the 3" wide side laps and 7" o.c. in two equally spaced rows in the field of the base sheet.

Ply Sheet: (Optional, required when using Ruberoid 20) one or more plies of Ruberoid 20, Gafglas ® PLY 4® or GAFGLAS FlexPly 6 ply sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq..

Membrane: One or more plies of Ruberoid® Torch Smooth, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule, Ruberoid Torch 1 or Ruberoid® Torch FR torch applied according to manufacturer's application instructions.

Or,

Ruberoid® SBS Heat-Weld™ Smooth, Ruberoid® SBS Heat-Weld™ FR, Ruberoid® SBS Heat-Weld™ Plus FR, Ruberoid® SBS Heat-Weld™ 25, Ruberoid® SBS Heat-Weld™ Granule, Ruberoid® SBS Heat-Weld™ 170 FR, Ruberoid® SBS Heat-Weld™ Plus FR, Ruberoid UltraClad™ SBS applied according to manufactures application instructions.

Surfacing: (Optional) Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..
2. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq. (Torch Smooth applications only)
3. GAF Weathercote® MB+, at 1 to 1.5 gal./sq..
4. Top Coat® Surface Seal, Applied at 1 to 1.5 gal./sq..

Maximum Design Pressure: -75 psf (See General Limitation #7)

Maximum Fire Classification: See General Limitation #1.

Frank Zuloaga, RRC
Product Control Examiner

Membrane Type: APP

Deck Type: Lightweight Concrete, Insulated, (See System Limitation)

Deck Description: Cellular or Aggregate Lightweight Concrete

System Type A-1: Anchor sheet mechanically fastened; one or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

Insulation Base or Top Layer Approved Type(s):	Fastener type	Fastening Detail No.	Fasteners Per Board	Fastener Density
ACFoam-II				
Minimum: 1¾" x 4' x 4'	N/A	N/A	N/A	N/A
ACFoam Composite				
Minimum: 1½" x 4' x 4'	N/A	N/A	N/A	N/A
Barrier Board Plus, E'NRG'Y-1 Plus, E'NRG'Y-2 Plus				
Minimum: 1½" x 3' x 4'	N/A	N/A	N/A	N/A
GAFTEMP® Permalite				
Minimum: ½" x 2' x 4'	N/A	N/A	N/A	N/A
Fiberglas				
Minimum: 15/16" x 4' x 4'	N/A	N/A	N/A	N/A
GAFTEMP® Composite, GAFTEMP Composite A, GAFTEMP Composite N				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Gypsum Board				
Minimum: ½" x 4' x 8'	N/A	N/A	N/A	N/A
GAFTEMP® High Density Fiberboard, GAFTEMP® Fiberboard				
Minimum: ½" x 4' x 8'	N/A	N/A	N/A	N/A
Pyrox, White Line, UltraGard Gold, GAFTEMP® Isotherm R				
Minimum: 1.3" x 4' x 4'	N/A	N/A	N/A	N/A
GAFTEMP Isotherm RA, Isotherm RN				
Minimum: 1½" x 4' x 4'	**N/A**	**N/A**	**N/A**	**N/A**
ISO-95, Composite Plus, GL, GW, E'NRG'Y-2, PSI-25				
Minimum: 1.4" x 3' x 4'	N/A	N/A	N/A	N/A

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Thermax Hy-Tec, Hy-Tec 2, Energy Lok				
Minimum: 1.2" x 4' x 4'	N/A	N/A	N/A	N/A
Thermax TRI-STAR, Hytherm Premier, ACFoam-I				
Minimum: 1.2" x 3' x 4'	N/A	N/A	N/A	N/A

Note: All insulation shall be adhered to the anchor sheet in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down. See General Limitation #4.

Anchor Sheet: Install one ply of Gafglas ® #75 Base Sheet, Gafglas #80 Ultima™ Base Sheet or Gafglas Stratavent®-Eliminator™ Nailable mechanically fastened as described below.

Fasteners: Gaftite (Drill-Tec) assembled CTD base ply fasteners, FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners at a fastener spacing of 9" o.c. at the 2" wide side laps and 9" o.c. in two equally spaced rows in the field of the base sheet.

Base Sheet: One ply of Ruberoid 20, Gafglas ® Ply 4, Gafglas ® FlexPly™ 6, Gafglas ® Stratavent® Perforated, Gafglas #80 Ultima™ Base Sheet, Ruberoid Modified Base Sheet or Gafglas ® #75 adhered to the insulation in a full mopping of an approved asphalt at an application rate of 25 lbs./sq. ± 15% see General Limitation #4.

Ply Sheet: One or more plies of Gafglas ® Ply 4 or Gafglas ® Ply 6® or Gafglas FlexPly ™ 6 in an approved asphalt at an application rate of 25 lb./sq. ± 15%.

Membrane: One ply of Ruberoid® Torch Smooth, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule, Ruberoid Torch 1 or Ruberoid® Torch FR torch applied according to manufacturer's application instructions.

Surfacing: (Optional) Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..
2. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq. (Torch Smooth applications only)
3. GAF Weathercote® MB+, at 1 to 1.5 gal./sq..
4. Top Coat® Surface Seal, Applied at 1 to 1.5 gal./sq..

Maximum Design Pressure: -75 psf (See General Limitation #7)

Maximum Fire Classification: See General Limitation #1.

Frank Zuloaga, RRC
Product Control Examiner

Membrane Type: SBS Heat Weld

Deck Type: Lightweight Concrete, Insulated, (See System Limitation)

Deck Description: Cellular or Aggregate Lightweight Concrete

System Type A-1: Base Sheet mechanically fastened through one or more layers of insulation.

All General and System Limitations apply.

Insulation Base or Top Layer	Fastener type	Fastening Detail No.	Fasteners Per Board	Fastener Density
Approved Type(s):				
ACFoam-II				
Minimum: 1¾" x 4' x 4'	N/A	N/A	N/A	N/A
ACFoam Composite				
Minimum: 1½" x 4' x 4'	N/A	N/A	N/A	N/A
Barrier Board Plus, E'NRG'Y-1 Plus, E'NRG'Y-2 Plus				
Minimum: 1½" x 3' x 4'	N/A	N/A	N/A	N/A
GAFTEMP® Permalite				
Minimum: ½" x 2' x 4'	N/A	N/A	N/A	N/A
Fiberglas				
Minimum: 15/16" x 4' x 4'	N/A	N/A	N/A	N/A
GAFTEMP® Composite, GAFTEMP Composite A, GAFTEMP Composite N				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Gypsum Board				
Minimum: ½" x 4' x 8'	N/A	N/A	N/A	N/A
GAFTEMP® High Density Fiberboard, GAFTEMP® Fiberboard				
Minimum: ½" x 4' x 8'	N/A	N/A	N/A	N/A
Pyrox, White Line, UltraGard Gold, GAFTEMP® Isotherm R				
Minimum: 1.3" x 4' x 4'	N/A	N/A	N/A	N/A
GAFTEMP Isotherm RA, Isotherm RN				
Minimum: 1½" x 4' x 4'	N/A	N/A	N/A	N/A
ISO-95, Composite Plus, GL, GW, E'NRG'Y-2, PSI-25				
Minimum: 1.4" x 3' x 4'	N/A	N/A	N/A	N/A
Thermax Hy-Tec, Hy-Tec 2, Energy Lok				
Minimum: 1.2" x 4' x 4'	N/A	N/A	N/A	N/A
Thermax TRI-STAR, Hytherm Premier, ACFoam-I				
Minimum: 1.2" x 3' x 4'	N/A	N/A	N/A	N/A

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Product Control Examiner

All General and System Limitations shall apply.

Separator Sheet Required between the rigid insulation boards and the lightweight insulating concrete deck. Install one of the following products loose laid: Gafglas®#75, Gafglas®Ultima ™#80, Gafglas®Nailable Stratavent, or 20 mil polyethylene sheet.

Base Sheet: Install one ply of Ruberoid® SBS Heat-Weld™ Smooth, Ruberoid® SBS Heat-Weld™ 25 mechanically fastened through insulation as described below.

Fasteners: Gaftite #12 [Drill-Tec] fastener with 2" diameter EverGuard [Olympic] Barbed metal plate. Screws and Plates are placed through 4" wide bottom lap spaced at 12" o.c., lap is then torched sealed.

Ply Sheet: Optional one ply Ruberoid® SBS Heat-Weld™ Smooth, Ruberoid® SBS Heat-Weld™ 25

Membrane: Ruberoid® SBS Heat-Weld™ Smooth, Ruberoid® SBS Heat-Weld™ FR, Ruberoid® SBS Heat-Weld™ Plus FR, Ruberoid® SBS Heat-Weld™ 25, Ruberoid® SBS Heat-Weld™ Granule, Ruberoid® SBS Heat-Weld™ 170 FR, Ruberoid® SBS Heat-Weld™ Plus FR

Surfacing: Optional: Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..
2. GAFGLAS Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 25 lb./sq. + 15%.
3. GAF Weathercote® MB+, at 1 to 1.5 gal./sq..
4. Top Coat® Surface Seal, Applied at 1 to 1.5 gal./sq..

Maximum Design Pressure: -45 psf (See General Limitation #7)

Maximum Fire Classification: See General Limitation #1.

Frank Zuloaga, RRC
Product Control Examiner

Membrane Type: APP

Deck Type: Lightweight Concrete, Insulated, (See System Limitations)

Deck Description: Cellular or Aggregate Lightweight Concrete

System Type A-1: Anchor sheet mechanically fastened; one or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

Insulation Base or Top Layer	Fastener type	Fastening Detail No.	Fasteners Per Board	Fastener Density
Approved Type(s):				
ACFoam-II				
Minimum: 1¾" x 4' x 4'	N/A	N/A	N/A	N/A
ACFoam Composite				
Minimum: 1½" x 4' x 4'	N/A	N/A	N/A	N/A
Barrier Board Plus, E'NRG'Y-1 Plus, E'NRG'Y-2 Plus				
Minimum: 1½" x 3' x 4'	N/A	N/A	N/A	N/A
GAFTEMP® Permalite				
Minimum: ½" x 2' x 4'	N/A	N/A	N/A	N/A
Fiberglas				
Minimum: 15/16" x 4' x 4'	N/A	N/A	N/A	N/A
GAFTEMP® Composite, GAFTEMP Composite A, GAFTEMP Composite N				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Gypsum Board				
Minimum: ½" x 4' x 8'	N/A	N/A	N/A	N/A
GAFTEMP® High Density Fiberboard, GAFTEMP® Fiberboard				
Minimum: ½" x 4' x 8'	N/A	N/A	N/A	N/A
Pyrox, White Line, UltraGard Gold, GAFTEMP® Isotherm R				
Minimum: 1.3" x 4' x 4'	N/A	N/A	N/A	N/A
GAFTEMP Isotherm RA, Isotherm RN				
Minimum: 1½" x 4' x 4'	N/A	N/A	N/A	N/A
ISO-95, Composite Plus, GL, GW, E'NRG'Y-2, PSI-25				
Minimum: 1.4" x 3' x 4'	N/A	N/A	N/A	N/A

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Product Control Examiner

Thermax Hy-Tec, Hy-Tec 2, Energy Lok				
Minimum: 1.2" x 4' x 4'	N/A	N/A	N/A	N/A
Thermax TRI-STAR, Hytherm Premier, ACFoam-I				
Minimum: 1.2" x 3' x 4'	N/A	N/A	N/A	N/A

Note: All insulation shall be adhered to the anchor sheet in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down. See General Limitation #4.

Anchor Sheet: Install one ply of Gafglas ® #75 Base Sheet, Gafglas #80 Ultima™ Base Sheet or Gafglas Stratavent®-Eliminator™ Nailable mechanically fastened as described below.

Fasteners: Gaftite (Drill-Tec) assembled CTD base ply fasteners, FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners at a fastener spacing of 9" o.c. at the 2" wide sidelaps and 9" o.c. in two equally spaced rows in the field of the base sheet.

Base Sheet: One ply of Ruberoid 20, Gafglas ® Ply 4, Gafglas FlexPly™ 6, Gafglas ® Stratavent®-Eliminator™ Perforated, Gafglas #80 Ultima™ Base Sheet, Gafglas Modified Base Sheet or Gafglas ® #75 adhered to the insulation in a full mopping of an approved asphalt at an application rate of 25 lbs./sq. ± 15%; see General Limitation #4.

Ply Sheet: One or more plies of Gafglas ® Ply 4 or Gafglas FlexPly™ 6 in an approved asphalt at an application rate of 25 lb./sq. ± 15%.

Membrane: One ply of Ruberoid® Torch Smooth, c® Torch Granule, Ruberoid® Torch Plus Granule, Ruberoid Torch 1 or Ruberoid® Torch FR torch applied according to manufacturer's application instructions.

Surfacing: (Optional) Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..
2. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq. (Torch Smooth applications only)
3. GAF Weathercote® MB+, at 1 to 1.5 gal./sq..
4. Top Coat® Surface Seal, Applied at 1 to 1.5 gal./sq..

Maximum Design Pressure: -45 psf (See General Limitation #7)

Maximum Fire Classification: See General Limitation #1.

Frank Zuloaga, RRC
Product Control Examiner

Membrane Type: SBS

Deck Type: Lightweight Concrete, (See System Limitation)

Deck Description: Cellular or Aggregate Lightweight Concrete

System Type A-1: Anchor sheet mechanically fastened; one or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

Insulation Base or Top Layer Approved Type(s):	Fastener type	Fastening Detail No.	Fasteners Per Board	Fastener Density
ACFoam-II				
Minimum: 1¾" x 4' x 4'	N/A	N/A	N/A	N/A
ACFoam Composite				
Minimum: 1½" x 4' x 4'	N/A	N/A	N/A	N/A
Barrier Board Plus, E'NRG'Y-1 Plus, E'NRG'Y-2 Plus				
Minimum: 1½" x 3' x 4'	N/A	N/A	N/A	N/A
GAFTEMP® Permalite				
Minimum: ½" x 2' x 4'	N/A	N/A	N/A	N/A
Fiberglas				
Minimum: 15/16" x 4' x 4'	N/A	N/A	N/A	N/A
GAFTEMP® Composite, GAFTEMP Composite A, GAFTEMP Composite N				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Gypsum Board				
Minimum: ½" x 4' x 8'	N/A	N/A	N/A	N/A
GAFTEMP® High Density Fiberboard, GAFTEMP® Fiberboard				
Minimum: ½" x 4' x 8'	N/A	N/A	N/A	N/A
Pyrox, White Line, UltraGard Gold, GAFTEMP® Isotherm R				
Minimum: 1.3" x 4' x 4'	N/A	N/A	N/A	N/A
GAFTEMP Isotherm RA, Isotherm RN				
Minimum: 1½" x 4' x 4'	N/A	N/A	N/A	N/A
ISO-95, Composite Plus, GL, GW, E'NRG'Y-2, PSI-25				
Minimum: 1.4" x 3' x 4'	N/A	N/A	N/A	N/A
Thermax Hy-Tec, Hy-Tec 2, Energy Lok				
Minimum: 1.2" x 4' x 4'	N/A	N/A	N/A	N/A
Thermax TRI-STAR, Hytherm Premier, ACFoam-I				
Minimum: 1.2" x 3' x 4'	N/A	N/A	N/A	N/A

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Product Control Examiner

Note: All insulation shall be adhered to the anchor sheet in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down. See General Limitation #4.

Anchor Sheet:	Install one ply of Gafglas ® #75 Base Sheet, Gafglas #80 Ultima ™ Base Sheet or Gafglas Stratavent®-Eliminator™ Nailable mechanically fastened as described below.
Fasteners:	Gaftite (Drill-Tec) assembled CTD base ply fasteners, FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners at a fastener spacing of 9" o.c. at the 2" wide sidelaps and 9" o.c. in two equally spaced rows in the field of the base sheet.
Base Sheet:	One ply of Gafglas ® Ply 4, Gafglas FlexPly™ 6, Gafglas ® Stratavent®-Eliminator™ Perforated, Gafglas #80 Ultima™ Base Sheet, Ruberoid Modified Base Sheet, Ruberoid 20 or Gafglas ® #75 adhered to the insulation in a full mopping of an approved asphalt at an application rate of 25 lbs./sq. ± 15%; see General Limitation #4.
Ply Sheet:	Optional one or more plies of Ruberoid 20, Gafglas ® Ply 4 or Gafglas FlexPly 6 in an approved asphalt at an application rate of 25 lb./sq. ± 15%.
Membrane:	One or more plies of Ruberoid 20 , Ruberoid 30, Ruberoid 30 FR Ruberoid MOP Smooth, Ruberoid® Mop 170 FR, Ruberoid® Mop Granule, Ruberoid MOP PLUS, Ruberoid MOP FR, Ruberoid Ultraclad®, fully adhered in type III or IV of an approved asphalt at an application rate 20-40 lbs./sq. or Ruberoid® SBS Heat-Weld™ Smooth, Ruberoid® SBS Heat-Weld™ FR, Ruberoid® SBS Heat-Weld™ Plus FR, Ruberoid® SBS Heat-Weld™ 25, Ruberoid® SBS Heat-Weld™ Granule, Ruberoid® SBS Heat-Weld™ 170 FR, Ruberoid® SBS Heat-Weld™ Plus FR, Ruberoid UltraClad™ SBS torched or heat welded.
Surfacing:	(Optional, required if Ruberoid MOP Smooth or Ruberoid 20 is top membrane) Install one of the following: 1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq.. 2. GAFGLAS Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 25 lb./sq. + 15%. 3. GAF Weathercote® MB+, at 1 to 1.5 gal./sq.. 4. Top Coat® Surface Seal, Applied at 1 to 1.5 gal./sq..
Maximum Design Pressure:	-45 psf (See General Limitation #7)
Maximum Fire Classification:	See General Limitation #1.

Frank Zuloaga, RRC
Product Control Examiner

Membrane Type: APP

Deck Type: Lightweight Concrete, (See System Limitation)

Deck Description: Cellular or Aggregate Lightweight Concrete

System Type A-2: Anchor sheet mechanically fastened; one or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

Insulation Base or Top Layer	Fastener type	Fastening Detail No.	Fasteners Per Board	Fastener Density
Approved Type(s):				
ACFoam-II Minimum: 1¾" x 4' x 4'	N/A	N/A	N/A	N/A
ACFoam Composite Minimum: 1½" x 4' x 4'	N/A	N/A	N/A	N/A
Barrier Board Plus, E'NRG'Y-1 Plus, E'NRG'Y-2 Plus Minimum: 1½" x 3' x 4'	N/A	N/A	N/A	N/A
GAFTEMP® Permalite Minimum: ½" x 2' x 4'	N/A	N/A	N/A	N/A
Fiberglas Minimum: 15/16" x 4' x 4'	N/A	N/A	N/A	N/A
GAFTEMP® Composite, GAFTEMP Composite A, GAFTEMP Composite N Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Gypsum Board Minimum: ½" x 4' x 8'	N/A	N/A	N/A	N/A
GAFTEMP® High Density Fiberboard, GAFTEMP® Fiberboard Minimum: ½" x 4' x 8'	N/A	N/A	N/A	N/A
Pyrox, White Line, UltraGard Gold, GAFTEMP® Isotherm R Minimum: 1.3" x 4' x 4'	N/A	N/A	N/A	N/A
GAFTEMP Isotherm RA, Isotherm RN Minimum: 1½" x 4' x 4'	N/A	N/A	N/A	N/A
ISO-95, Composite Plus, GL, GW, E'NRG'Y-2, PSI-25 Minimum: 1.4" x 3' x 4'	N/A	N/A	N/A	N/A
Thermax Hy-Tec, Hy-Tec 2, Energy Lok Minimum: 1.2" x 4' x 4'	N/A	N/A	N/A	N/A

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Product Control Examiner

Thermax TRI-STAR, Hytherm Premier, ACFoam-I

Minimum: 1.2" x 3' x 4'	N/A	N/A	N/A	N/A

Note: All insulation shall be adhered to the anchor sheet in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down. See General Limitation #4.

Anchor Sheet: Install one ply of Ruberoid 20, GAFGLAS® #75 Base Sheet, GAFGLAS #80 Ultima™ Base Sheet or GAFGLAS Stratavent®-Eliminator™ Nailable mechanically fastened as described below.

Fasteners: Gaftite (Drill-Tec) assembled CTD base ply fasteners, FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners at a fastener spacing of 12" o.c. at the 2" wide sidelaps and 12" o.c. in three equally spaced rows in the field of the base sheet.

Base Sheet: One ply of Gafglas® Ply 4, Gafglas FlexPly™ 6, Gafglas ® Stratavent ®-Eliminator™ Perforated, Gafglas #80 Ultima™ Base Sheet, Ruberoid Modified Base Sheet, Ruberoid 20 or Gafglas ® #75 adhered to the insulation in a full mopping of an approved asphalt at an application rate of 25 lbs./sq. ± 15%; see General Limitation #4.

Ply Sheet: (Optional, required if used with Ruberoid 20 or perforated Stratavent®) one or more plies of Gafglas ® Ply 4 or Gafglas FlexPly ™ 6 in an approved asphalt at an application rate of 25 lb./sq. ± 15%.

Membrane: One or more plies of Ruberoid® Torch Smooth, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule or Ruberoid® Torch FR torch applied according to manufacturer's application instructions.

Surfacing: (Optional) Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..
2. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq. (Torch Smooth applications only)
3. GAF Weathercote® MB+, at 1 to 1.5 gal./sq..
4. Top Coat® Surface Seal, Applied at 1 to 1.5 gal./sq..

Maximum Design Pressure: -45 psf (See General Limitation #7)

Maximum Fire Classification: See General Limitation #1.

Frank Zuloaga, RRC
Product Control Examiner

Membrane Type: SBS

Deck Type: Lightweight Concrete, Insulated, (See System Limitation)

Deck Description: Cellular or Aggregate Lightweight Concrete

System Type A-2: Anchor sheet mechanically fastened; one or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

Insulation Base or Top Layer	Fastener type	Fastening Detail No.	Fasteners Per Board	Fastener Density
Approved Type(s):				
ACFoam-II				
Minimum: 1¾" x 4' x 4'	N/A	N/A	N/A	N/A
ACFoam Composite				
Minimum: 1½" x 4' x 4'	N/A	N/A	N/A	N/A
Barrier Board Plus, E'NRG'Y-1 Plus, E'NRG'Y-2 Plus				
Minimum: 1½" x 3' x 4'	N/A	N/A	N/A	N/A
GAFTEMP® Permalite				
Minimum: ½" x 2' x 4'	N/A	N/A	N/A	N/A
Fiberglas				
Minimum: 15/16" x 4' x 4'	N/A	N/A	N/A	N/A
GAFTEMP® Composite, GAFTEMP Composite A, GAFTEMP Composite N				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Gypsum Board				
Minimum: ½" x 4' x 8'	N/A	N/A	N/A	N/A
GAFTEMP® High Density Fiberboard, GAFTEMP® Fiberboard				
Minimum: ½" x 4' x 8'	N/A	N/A	N/A	N/A
Pyrox, White Line, UltraGard Gold, GAFTEMP® Isotherm R				
Minimum: 1.3" x 4' x 4'	N/A	N/A	N/A	N/A
GAFTEMP Isotherm RA, Isotherm RN				
Minimum: 1½" x 4' x 4'	N/A	N/A	N/A	N/A
ISO-95, Composite Plus, GL, GW, E'NRG'Y-2, PSI-25				
Minimum: 1.4" x 3' x 4'	N/A	N/A	N/A	N/A
Thermax Hy-Tec, Hy-Tec 2, Energy Lok				
Minimum: 1.2" x 4' x 4'	N/A	N/A	N/A	N/A

Frank Zuloaga, RRC
Product Control Examiner

Thermax TRI-STAR, Hytherm Premier, ACFoam-I

Minimum: 1.2" x 3' x 4'	N/A	N/A	N/A	N/A

Note: All insulation shall be adhered to the anchor sheet in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down. See General Limitation #4.

Anchor Sheet: Install one ply of Ruberoid 20, Gafglas ® #75 Base Sheet, Gafglas #80 Ultima™ Base Sheet or Gafglas Stratavent®-Eliminator™ Nailable mechanically fastened as described below.

Fasteners: Gaftite (Drill-Tec) assembled CTD base ply fasteners, FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners at a fastener spacing of 12" o.c. at the 2" wide sidelaps and 12" o.c. in three equally spaced rows in the field of the base sheet.

Base Sheet: One ply of Gafglas ® Ply 4, Gafglas FlexPly™ 6, Gafglas ® Stratavent Perforated, Gafglas #80 Ultima™ Base Sheet, Ruberoid Modified Base Sheet, Ruberoid 20or Gafglas ® #75 adhered to the insulation in a full mopping of an approved asphalt at an application rate of 25 lbs./sq. ± 15%; see General Limitation #4.

Ply Sheet: Optional, one or more plies of Ruberoid 20, Gafglas ® Ply 4 or Gafglas FlexPly 6 in an approved asphalt at an application rate of 25 lb./sq. ± 15%.

Membrane: One or more plies of Ruberoid 20, Ruberoid 30, Ruberoid 30 FR Ruberoid MOP Smooth, Ruberoid® Mop 170 FR, Ruberoid® Mop Granule, Ruberoid MOP PLUS, Ruberoid MOP FR, Ruberoid Ultraclad® (UltraClad can be Heat Welded), fully adhered in type III or IV of an approved asphalt at an application rate 20-40 lbs./sq.

Surfacing: (Optional, required if Ruberoid MOP Smooth or Ruberoid 20 is top membrane) Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..
2. Gafglas Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 25 lb./sq. + 15%.
3. GAF Weathercote® MB+, at 1 to 1.5 gal./sq..
4. Top Coat® Surface Seal, Applied at 1 to 1.5 gal./sq..

Maximum Design Pressure: -45 psf (See General Limitation #7)

Maximum Fire Classification: See General Limitation #1.

Frank Zuloaga, RRC
Product Control Examiner

Membrane Type: APP

Deck Type: Lightweight Concrete, Insulated, (See System Limitation)

Deck Description: Cellular or Aggregate Lightweight Concrete

System Type A-3: Anchor sheet mechanically fastened; one or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

Insulation Base or Top Layer	Fastener type	Fastening Detail No.	Fasteners Per Board	Fastener Density
Approved Type(s):				
GAFTEMP® Permalite				
Minimum: ½" x 2' x 4'	N/A	N/A	N/A	N/A
GAFTEMP® Composite, GAFTEMP Composite A, GAFTEMP Composite N				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Gypsum Board				
Minimum: ½" x 4' x 8'	N/A	N/A	N/A	N/A
GAFTEMP® High Density Fiberboard, GAFTEMP® Fiberboard				
Minimum: ½" x 4' x 8'	N/A	N/A	N/A	N/A
GAFTEMP Isotherm RA, Isotherm RN				
Minimum: 1½" x 4' x 4'	**N/A**	**N/A**	**N/A**	**N/A**

Note: All insulation shall be adhered to the anchor sheet in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down. See General Limitation #4.

Anchor Sheet: Install one ply of Ruberoid 20, Gafglas ® #75 Base Sheet, Gafglas #80 Ultima™ Base Sheet or Gafglas Stratavent®-Eliminator™ Nailable mechanically fastened as described below.

Fasteners: Gaftite (Drill-Tec) assembled CTD base ply fasteners, FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners at a fastener spacing of 7" o.c. at the 3" wide sidelaps and 7" o.c. in two equally spaced rows in the field of the base sheet.

Base Sheet: One ply of Ruberoid 20, Gafglas ® Ply 4, Gafglas FlexPly™ 6, Gafglas ® Stratavent®-Eliminator™ Perforated, Gafglas #80 Ultima™ Base Sheet, Ruberoid Modified Base Sheet or Gafglas ® #75 adhered to the insulation in a full mopping of an approved asphalt at an application rate of 25 lbs./sq. ± 15% or adhered in a strip or spot mopping of an approved asphalt; see General Limitation #4.

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Ply Sheet: (Optional, required if used with Ruberoid 20 or perforated Stratavent®-Eliminator™) one or more plies of Gafglas ® Ply 4 or Gafglas FlexPly ™ 6 in an approved asphalt at an application rate of 25 lb./sq. ± 15%.

Membrane: One or more plies of Ruberoid® Torch Smooth, Ruberoid® Torch Granule, Ruberoid® Torch Plus Granule or Ruberoid® Torch FR torch, Ruberoid Torch 1, Ruberoid® SBS Heat-Weld™ Smooth, Ruberoid® SBS Heat-Weld™ FR, Ruberoid® SBS Heat-Weld™ Plus FR, Ruberoid® SBS Heat-Weld™ 25, Ruberoid® SBS Heat-Weld™ Granule, Ruberoid® SBS Heat-Weld™ 170 FR, Ruberoid® SBS Heat-Weld™ Plus FR torch, Ruberoid UltraClad™ SBS applied according to manufacturer's application instructions.

Surfacing: (Optional) Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..
2. GAF Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq. or GAF WeatherCoat® Emulsion at 3 gal./sq. (Torch Smooth applications only)
3. GAF Weathercote® MB+, at 1 to 1.5 gal./sq..
4. Top Coat® Surface Seal, Applied at 1 to 1.5 gal./sq..

Maximum Design Pressure: -75 psf (See General Limitation #7)

Maximum Fire Classification: See General Limitation #1.

Frank Zuloaga, RRC
Product Control Examiner

Membrane Type: SBS

Deck Type: Lightweight Concrete, Insulated, (See System Limitation)

Deck Description: Cellular or Aggregate Lightweight Concrete

System Type A-3: Anchor sheet mechanically fastened; one or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

Insulation Base or Top Layer	Fastener type	Fastening Detail No.	Fasteners Per Board	Fastener Density
Approved Type(s):				
GAFTEMP® Permalite				
Minimum: ½" x 2' x 4'	N/A	N/A	N/A	N/A
GAFTEMP® Composite, GAFTEMP Composite A, GAFTEMP Composite N				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Gypsum Board				
Minimum: ½" x 4' x 8'	N/A	N/A	N/A	N/A
GAFTEMP® High Density Fiberboard, GAFTEMP® Fiberboard				
Minimum: ½" x 4' x 8'	N/A	N/A	N/A	N/A
GAFTEMP Isotherm RA, Isotherm RN				
Minimum: 1½" x 4' x 4'	**N/A**	**N/A**	**N/A**	**N/A**

Note: All insulation shall be adhered to the anchor sheet in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down. See General Limitation #4.

Anchor Sheet: Install one ply of Ruberoid 20, Gafglas ® #75 Base Sheet, Gafglas #80 Ultima™ Base Sheet or Gafglas Stratavent®-Eliminator™ Nailable mechanically fastened as described below.

Fasteners: Gaftite (Drill-Tec) assembled CTD base ply fasteners, FM-90 fasteners, FM-60 fasteners with FM-30 disks or Olympic CR Base Felt Fasteners at a fastener spacing of 7" o.c. at the 3" wide sidelaps and 7" o.c. in two equally spaced rows in the field of the base sheet.

Base Sheet: One ply of Ruberoid 20, Gafglas ® Ply 4, Gafglas FlexPly 6, Gafglas ® Stratavent®-Eliminator™ Perforated, Gafglas #80 Ultima™ Base Sheet, Ruberoid Modified Base Sheet or Gafglas ® #75 adhered to the insulation in a full mopping of an approved asphalt at an application rate of 25 lbs./sq. ± 15%; see General Limitation #4.

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Ply Sheet: Optional one or more plies of Ruberoid 20, Gafglas ® Ply 4 or Gafglas ® FlexPly™ 6 in an approved asphalt at an application rate of 25 lb./sq. ± 15%.

Membrane: One or more plies of Ruberoid 20 , Ruberoid 30, Ruberoid 30 FR Ruberoid MOP Smooth, Ruberoid® Mop 170 FR, Ruberoid® Mop Granule, Ruberoid MOP Plus, Ruberoid MOP FR, Ruberoid Ultraclad®, fully adhered in type III or IV of an approved asphalt at an application rate 20-40 lbs./sq.
Or
Ruberoid® SBS Heat-Weld™ Smooth, Ruberoid® SBS Heat-Weld™ FR, Ruberoid® SBS Heat-Weld™ Plus FR, Ruberoid® SBS Heat-Weld™ 25, Ruberoid® SBS Heat-Weld™ Granule, Ruberoid® SBS Heat-Weld™ 170 FR, Ruberoid® SBS Heat-Weld™ Plus FR, Ruberiod® Ultraclad applied according to manufacturer's application instructions

Surfacing: (Optional, required if Ruberoid MOP Smooth or Ruberoid 20 is top membrane)
Install one of the following:

1. Gravel or slag applied at 400 lb./sq. and 300 lb./sq. respectively in a flood coat of approved asphalt at 60 lb./sq..

2. Gafglas Mineral Surfaced Cap Sheet in an approved asphalt at an application rate of 25 lb./sq. ± 15%.

3. GAF Weathercote® MB+, at 1 to 1.5 gal./sq..

4. Top Coat® Surface Seal, Applied at 1 to 1.5 gal./sq..

Maximum Design Pressure: -75 psf (See General Limitation #7)

Maximum Fire Classification: See General Limitation #1.

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SYSTEM LIMITATION:

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 fastener patterns and density. All testing and fastening design shall be in compliance with Miami-Dade County Protocol TAS 105 and Miami-Dade County Roofing Application Standard RAS 117.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.
3. For systems where specific lightweight insulating concrete is not referenced, the minimum design mix shall be a minimum of 250 psi.

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. GAF requires either a ply of Stratavent®-Eliminator™ Perforated or a layer of a GAFTEMP® PERMALITE® or wood fiber overlay board on all isocyanurate applications.
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Where Stratavent®-Eliminator™ Perforated is used over rigid insulation boards the maximum design pressure shall be limited to -90psf. **(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.)**

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NOTICE OF ACCEPTANCE STANDARD CONDITIONS

1 Renewal of this Acceptance (approval) shall be considered after a renewal application has been filed and the original submitted documentation, including test supporting data, engineering documents, are no older than eight (8) years.

2 Any and all approved products shall be permanently labeled with the manufacturer's name, city, state, and the following statement: "Miami-Dade County Product Control Approved", or as specifically stated in the specific conditions of this Acceptance.

3 Renewals of Acceptance will not be considered if:
   a) There has been a change in the South Florida Building Code affecting the evaluation of this product and the product is not in compliance with the code changes;
   b) The product is no longer the same product (identical) as the one originally approved;
   c) If the Acceptance holder has not complied with all the requirements of this acceptance, including the correct installation of the product;
   d) The engineer who originally prepared, signed and sealed the required documentation initially submitted, is no longer practicing the engineering profession.

4 Any revision or change in the materials, use, and/or manufacture of the product or process shall automatically be cause for termination of this Acceptance, unless prior written approval has been requested (through the filing of a revision application with appropriate fee) and granted by this office.

5 Any of the following shall also be grounds for removal of this Acceptance:
   a) Unsatisfactory performance of this product or process;
   b) Misuse of this Acceptance as an endorsement of any product, for sales, advertising or any other purposes.

6 The Notice of Acceptance 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 Notice of Acceptance is displayed, then it shall be done in its entirety.

7 A copy of this Acceptance as well as approved drawings and other documents, where it applies, shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at all times. The copies need not be resealed by the engineer.

8 Failure to comply with any section of this Acceptance shall be cause for termination and removal of Acceptance.

9 This Acceptance contains pages 1 through 42.

END OF THIS ACCEPTANCE

Frank Zuloaga, RRC
Product Control Examiner