MIAMI-DADE

BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

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

NOTICE OF ACCEPTANCE (NOA)

Firestone Building Products Company
250 West 96th Street
Indianapolis, IN 46260

SCOPE:
This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) 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 Division (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. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code and the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Firestone EPDM Single Ply Roof Systems over Steel Decks

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA No. 08-0324.06 and consists of pages 1 through 32.
The submitted documentation was reviewed by Jorge L. Acebo.

MIAMI-DADE COUNTY APPROVED

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Single Ply
Material:	EPDM
Deck Type:	Steel
Maximum Design Pressure	-180 psf

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specifications	Product Description
Standard RubberGard®	45 & 60 mil	ASTM D 4637 Type I	Non-Reinforced EPDM membrane.
Fire Retardant RubberGard®	45 & 60 mil	ASTM D 4637 Type I	Non-Reinforced Fire Retardant EPDM membrane.
Standard Reinforced RubberGard®	45 & 60 mil	ASTM D 4637 Type II	Polyester scrim reinforced EPDM membrane.
Fire Retardant Reinforced RubberGard®	45 & 60 mil	ASTM D 4637 Type II	Polyester scrim reinforced fire retardant EPDM membrane.
RubberGard MAX®	45, 60 & 75 mil	ASTM D 4637 Type II	Polyester scrim reinforced EPDM membrane.
RubberGard MAX FR®	45, 60 & 75 mil	ASTM D 4637 Type II	Fire Retardant Polyester scrim reinforced EPDM membrane .
RubberGard MAX PT®	45 & 60 mil	ASTM D 4637 Type II	Polyester scrim reinforced EPDM membrane with integrated 3" pre-applied seam tape.
RubberGard Platinum®	90 mil	ASTM D 4637 Type I	Non-Reinforced EPDM membrane.
RubberGard Platinum LS-FR®	90 mil	ASTM D 4637 Type I	Non-Reinforced EPDM membrane.
RubberGard LS-FR®	45 & 60 mil	ASTM D 4637 Type I	Fire Retardant Non-Reinforced EPDM membrane.
RubberGard LS-FR PT®	60 mil	ASTM D 4637 Type I	Fire Retardant Non-Reinforced EPDM membrane with integrated 3" pre-applied seam tape.
RuberGard EcoWhite®	60 mil	ASTM D 4637 Type I	Non-Reinforced, bi-laminate, white on black EPDM membrane.
EPDM Batten Cover Strip	.045" x 8" x 150'	ASTM D 4637	EPDM cover strip
FR EPDM Batten Cover Strips	.045" x 7.5" x 150'	ASTM D 4637	Fire Retardant EPDM cover strip
EPDM FormFlash	various	ASTM D 4811	Self-curing EPDM flashing
Neoprene FormFlash	.060" x 24" x 100' .060" x 48" x 100'	ASTM D 4811	Self-curing neoprene flashing
Reinforced Perimeter Fastening Strip	.045" x 6" x 100'	ASTM D 4637	Non-dusted EPDM reinforced strip for non-penetrating base tie-in details

Product	Dimensions	Test Specifications	Product Description
Bonding Adhesive BA-2004 T	5 gallon pail	Proprietary	Neoprene based bonding adhesive
Splice Adhesive SA-1065	1 gallon and 5 gallon pails	Proprietary	Synthetic polymer based adhesive
UltraPly Bonding Adhesive	5 gal. pail	Proprietary	Solvent based adhesive
General Purpose Sealant S-40A	10.3 oz. tube	Proprietary	Silicone sealant
Night Sealant S-30A	10 oz. tube	Proprietary	Synthetic polymer based caulking
Acryli-Top Coating PC-100	5 gallon pail	Proprietary	Acrylic coating
Aluminum Drain Bar	.063" to .110" thick x 4" x 10'	FM 4450	Aluminum termination bar.
Polymer Batten	.050" x 1.0" x 250'	Proprietary	EPDM anchor
Firestone EdgeGard	Various	Proprietary	Roof edging system
QuickPrime, QuickPrime Plus	5 gallon pail	Proprietary	Primer used to clean and prime EPDM
QuickSeam Flashing	.080" x various widths x 100'	Proprietary	Semi-cured EPDM flashing laminated to cure seam tape
QuickSeam Batten Cover	.095" x various widths x 100'	Proprietary	Cured EPDM and a seam adhesive laminate
QuickSeam Joint Cover	.070" x 5.75" diameter	Proprietary	FormFlash with two layers of butyl/EPDM adhesive tape laminate
QuickSeam Splice Tape	3" x 100'	Proprietary	Tape for field splicing
QuickSeam R.M.A. Strip	10" x 100'	Proprietary	Strip of RubberGard MAX with QuickSeam Tape for anchoring membrane to substrate
Splice Wash SW-100	5 gallon pail	Proprietary	Cleaning and prep solution for EPDM
Lap Sealant LS-3029	10 oz. tube, 1 qt. tube and 5 gallon pails	Proprietary	Sealant for membrane laps
Pourable Sealer S-10	.78 gallon, Part A .10 gallon, Part B	Proprietary	Two part polyurethane sealant
Water Block Seal S-20	10 oz. tube	Proprietary	Water sealant
Firestone Protection Mat	15" x 320'	Proprietary	Black polypropylene, non-woven, needle-punched fabric
Firestone Walkway Pads	30" x 30" x .300 thick	Proprietary	EPDM walkway pads

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ACFoam Composite	Isocyanurate Insulation with perlite facer	Atlas Roofing Corp.
ACFoam II	Isocyanurate Insulation	Atlas Roofing Corp.
Styropor	Expanded polystyrense insulation	BASF Corp.
Styrofoam	Extruded polystyrense insulation	Dow
ISO 95+ GL, 95+ GW	Isocyanurate Insulation	Firestone
ISO 95+ Composite	Isocyanurate Insulation with perlite facer	Firestone
Fiber Top, FiberTop C	Regular wood fiber insulation	Firestone
RetroGard HD Cover Board	High density polyisocyanurate for use as a cover board	Firestone
IsoGard HD Cover Board	High density polyisocyanurate for use as a cover board	Firestone
Securock	Gypsum cover board	USG Co.
Dens Deck, Dens Deck Prime	Silicon treated gypsum	G-P Products
ENRGY 3, ENRGY PSI-25	Isocyanurate Insulation	Johns Manville
Fesco Foam	Isocyanurate Insulation with perlite facer	Johns Manville
Wood Fiberboard	Regular wood fiber insulation	Generic
High Density Wood Fiberboard	High Density Wood Fiber insulation board.	Generic
Perlite Insulation Board	Perlite Insulation	Generic
Type X Gypsum	Gypsum Wallboard	Generic
XPS	Extruded polystyrene	Generic
Huntsman EPS	Expanded polystyrense insulation	Huntsman Corp.
FOAMULAR	Extruded polystyrense insulation	Owens Corning
Multi-Max FA	Isocyanurate Insulation	Rmax, Inc.
Thermaroof Composite	Isocyanurate Insulation with perlite facer	Rmax, Inc.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Firestone All-Purpose Fastener	Insulation and membrane fastener	Various	Firestone
2.	Firestone HD Fastener	Insulation and membrane fastener	Various	Firestone
3.	Barbed Metal Seam Plate	Metal plates used for membrane securement.	2" dia	Firestone
4.	Hexagonal Plate	Insulation attachment hexagonal plate	3-$^{3}/_{8}$" x 2-$^{7}/_{8}$"	Firestone
5.	Seam Plate	Membrane seam attachment plate.	2" dia	Firestone
6.	Dekfast Fasteners	Insulation and membrane fastener	Various	SFS Intec
7.	Dekfast Hex Plate	Insulation and membrane fastener	Various	SFS Intec
8.	#12 & #14 Roofgrip	Insulation and membrane fastener	Various	OMG
9.	Metal Plate	Galvalume AZ50 stress plate	3" square 3" round	OMG
10.	Plastic Plate	Polyethylene stress plate	3.2" round	OMG
11.	Olympic Fasteners	Insulation and membrane fastener	Various	OMG
12.	Olympic Standard Plate	Galvalume AZ55 stress plate	3" round	OMG
13.	Olympic Plastic Plate	Plastic plates for fasteners.	3" round	OMG
14.	Rawl Fasteners	Insulation fastener for steel and wood decks	Various	Powers Fasteners Inc.
15.	Rawl Insulation Plate	Galvalume AZ55 stress plate	3" round	Powers Fasteners Inc.
16.	HD Insul-Fixx Fastener	Insulation fastener for use in steel and concrete decks	Various	SFS Intec
17.	Insul-Fixx S	Galvalume AZ55 stress plate	3" round	SFS Intec
18.	Insul-Fixx PG	Polyethylene stress plate	3" round	SFS Intec
19.	Tru-Fast HD Fasteners	Insulation and membrane fastener	Various	The Tru-Fast Corp.
20.	Tru-Fast MP-3	Galvalume AZ50 steel plate	3.23" round	The Tru-Fast Corp.
21.	Tru-Fast Plastic Plate	3" round polyethylene stress plate	3" round	The Tru-Fast Corp.
22.	Firestone V-Plate	Membrane seam attachment plate.	2¼" dia	Firestone
23.	Firestone HD HailGard Fastener	Fastener for use with Plywood and Firestone HailGard products	Various	Firestone
24.	Firestone HD Plus Fastener	Insulation and membrane fastener	Various	Firestone

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Description	Date
Underwriters Laboratories, Inc.	Letter	UL790	07/09/93
	88NK1932	UL790	12/08/93
	91NK15494	UL790	02/28/92
	90NK16256	UL790	02/27/91
	91NK7843	UL790	08/06/91
Factory Mutual Research Corp.	J.I. #1V1A7.AM	FM 4470	06/25/92
	J.I. #1W3A4.AM	FM 4470	12/01/92
	J.I. #1T7A3.AM	FM 4470	01/18/92
	J.I. #1V6A9.AM	FM 4470	02/27/92
	J.I. #2W6A2.AM	FM 4470	06/25/93
	J.I.# 2X9A8.AM	FM 4470	06/14/94
	3010822	FM 4470	07/31/02
	3014538	FM 4470	05/27/04
	3014826	FM 4470	10/07/02
	3016670	FM 4470	04/29/04
	3019991	FM 4470	09/20/05
	3029812	FM 4470	05/18/07
	3031293	FM 4470	11/29/07
	3030227	FM 4470	06/18/07
	3028164	FM 4470	11/02/07
	3015479	FM 4470	07/04/04
	3026519	FM 4470	12/14/06
	3027508	FM 4470	02/07/07
	3011282	FM 4470	08/08/02
	3030880	FM 4470	03/04/08
	3029384	FM 4470	02/28/08
	3033218	FM 4470	08/12/08
	3034561	FM 4470	12/08/08
Trinity|ERD	F9240.03.09-1-R1	ASTM D 4637	07/10/09
	F9240.03.09-R12	ASTM D 4637	07/30/09
	F9240.11.08-R1	ASTM D 4637	07/10/09
	F9240.07.08-R2	ASTM D 4637	07/10/09

APPROVED ASSEMBLIES

Membrane Type: Single Ply, EPDM, Reinforced, Nonreinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel deck

System Type B(1): Base layer of insulation mechanically fastened, top layer adhered with approved adhesive; membrane fully adhered.

All General and System Limitations apply.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISO 95+ GL Minimum 1.5" thick	**1**	**1:2 ft^2**

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Tapered ISO 95+ GL Minimum ½" starting thickness, ¼:12 taper	**N/A**	**N/A**
Firestone RetroGard HD Minimum ½" thick	**N/A**	**N/A**

Note: Top layer of insulation shall be adhered with Firestone I.S.O. Twin Pack Insulation Adhesive applied in ½ to ¾ in. wide ribbons spaced 12 in. o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as the base layer shall only be used as the base layer with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Membrane: Firestone (Reinforced or Non-Reinforced) Standard RubberGard, Fire Retardant RubberGard, RubberGard LS-FR, RubberGard LS-FR PT, RubberGard MAX, RubberGard MAX PT, RubberGard MAX FR, RubberGard EcoWhite or RubberGard Platinum EPDM membrane fully adhered to the cover board with Firestone Bonding Adhesive BA-2004 T at a rate of 60 sq. ft./gal. (coverage area is for adhesive application to both mating surfaces). The roof cover side and end laps are sealed with Firestone RubberGard SA-1065 Splice Adhesive or QuickSeam Splice Tape.

Maximum Design Pressure: –45 psf (See General Limitation #9)

Membrane Type: Single Ply, EPDM, Reinforced, Nonreinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel deck secured using ¼" steel structural supports spaced a maximum 6ft o.c. with ITW Buildex Traxx 5 fasteners spaced maximum 6" o.c. at supports. Side laps, secured 24" o.c. with ITW Buildex TRAXX 1 fasteners.

System Type B(2): Base layer of insulation mechanically fastened, top layer adhered with approved adhesive; membrane fully adhered.

All General and System Limitations apply.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 1.5" thick	**1**	**1:1.6 ft^2**

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 1.5" Thick	**N/A**	**N/A**

Note: Top layer of insulation shall be adhered with Firestone I.S.O. Twin Pack Insulation Adhesive applied in ½ to ¾ in. wide ribbons spaced 12 in. o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as the base layer shall only be used as the base layer with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Membrane: Firestone (Reinforced or Non-Reinforced) Standard RubberGard, Fire Retardant RubberGard, RubberGard LS-FR, RubberGard LS-FR PT, RubberGard MAX, RubberGard MAX PT, RubberGard MAX FR, RubberGard EcoWhite or RubberGard Platinum EPDM membrane fully adhered to the insulation with Firestone Bonding Adhesive BA-2004 T at a rate of 60 sq. ft./gal. (120 sq. ft./gal total to both the underside of the roof cover and the substrate). The roof cover side and end laps are sealed with a Firestone RubberGard SA-1065 Splice or QuickSeam Splice Tape.

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

Membrane Type: Single Ply, EPDM, Reinforced, Nonreinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel deck secured using ¼" steel structural supports spaced a maximum 6ft o.c. with ITW Buildex Traxx 5 fasteners spaced maximum 6" o.c. at supports. Side laps, secured 24" o.c. with ITW Buildex TRAXX 1 fasteners.

System Type B(3): Base layer of insulation mechanically fastened, membrane fully adhered.

All General and System Limitations apply.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 1.5" thick	**1**	**1:1.33 ft^2**

Note: All insulation shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Firestone (Reinforced or Non-Reinforced) Standard RubberGard, Fire Retardant RubberGard, RubberGard LS-FR, RubberGard LS-FR PT, RubberGard MAX, RubberGard MAX PT, RubberGard MAX FR, RubberGard EcoWhite or RubberGard Platinum EPDM membrane fully adhered to the insulation with Firestone Bonding Adhesive BA-2004 T at a rate of 60 sq. ft./gal. (120 sq. ft./gal total to both the underside of the roof cover and the substrate). The roof cover side and end laps are sealed with a Firestone RubberGard SA-1065 Splice or QuickSeam Splice Tape.

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

Membrane Type: Single Ply, EPDM, Reinforced, Nonreinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel deck secured using ¼" steel structural supports spaced a maximum 6ft o.c. with ITW Buildex Traxx 5 fasteners spaced maximum 6" o.c. at supports. Side laps, secured 24" o.c. with ITW Buildex TRAXX 1 fasteners.

System Type B(4): Base layer of insulation mechanically fastened, membrane fully adhered.

All General and System Limitations apply.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 2.0" thick	**1**	**1:1.6 ft^2**

Note: All insulation shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Firestone (Reinforced or Non-Reinforced) Standard RubberGard, Fire Retardant RubberGard, RubberGard LS-FR, RubberGard LS-FR PT, RubberGard MAX, RubberGard MAX PT, RubberGard MAX FR, RubberGard EcoWhite or RubberGard Platinum EPDM membrane fully adhered to the insulation with Firestone Bonding Adhesive BA-2004 T at a rate of 60 sq. ft./gal. (120 sq. ft./gal total to both the underside of the roof cover and the substrate). The roof cover side and end laps are sealed with a Firestone RubberGard SA-1065 Splice or QuickSeam Splice Tape.

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

Membrane Type: Single Ply, EPDM, Reinforced, Nonreinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel deck

System Type B(5): Base layer of insulation mechanically fastened, top layer adhered with approved adhesive; membrane fully adhered.

All General and System Limitations apply.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 1.5" thick	**1**	**1:2 ft^2**

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck or DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: Top layer of insulation shall be adhered with Firestone I.S.O. Twin Pack Insulation Adhesive applied in ½ to ¾ in. wide ribbons spaced 12 in. o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as the base layer shall only be used as the base layer with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Membrane: Firestone (Reinforced or Non-Reinforced) Standard RubberGard, Fire Retardant RubberGard, RubberGard LS-FR, RubberGard LS-FR PT, RubberGard MAX, RubberGard MAX PT, RubberGard MAX FR, RubberGard EcoWhite or RubberGard Platinum EPDM membrane fully adhered to the insulation with Firestone Bonding Adhesive BA-2004 T at a rate of 60 sq. ft./gal. (120 sq. ft./gal total to both the underside of the roof cover and the substrate). The roof cover side and end laps are sealed with a Firestone RubberGard SA-1065 Splice or QuickSeam Splice Tape.

Maximum Design Pressure: –45 psf (See General Limitation #9)

Membrane Type: Single Ply, EPDM, Reinforced, Nonreinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel

System Type C(1): All layers of insulation simultaneously attached; membrane fully adhered.

All General and System Limitations apply.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Styropor, Huntsman, STYROFOAM, FOAMULAR Minimum 1" thick	**N/A**	**N/A**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
FiberTop, High Density Wood Fiber Minimum 1" thick	**1, 2, 6 or 11**	**1:2 ft^2**

Barrier: Gypsum board, minimum thickness ½", or ¾" perlite , placed between the deck and the polystyrene base layer insulation.

Membrane: Fully adhere any RubberGard® EPDM membrane to the insulation with Firestone Bonding Adhesive BA-2004 T at a rate of 45-60 sq. ft./gal. (coverage area is for adhesive application to both mating surfaces).

Surfacing: (Optional) Firestone Acryli-Top (PC-100) to be applied at 1 gal/100 sq. ft. with an airless sprayer. If roller applied, two separate coats of 200 sq. ft. per gallon are required.

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

Membrane Type: Single Ply, EPDM, Reinforced, Nonreinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel

System Type C(2): All layers of insulation simultaneously attached; membrane fully adhered.

All General and System Limitations apply.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Multi-Max, Multi-Max FA, ACFoam II Minimum 1.3" thick	**N/A**	**N/A**
ISO 95+ GL, ENRGY 3, ENRG-Y PSI-25 Minimum 1.4" thick	**N/A**	**N/A**
ISO 95+ GL Composite, FM Approved Composite Minimum 1.5" thick	**N/A**	**N/A**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
FiberTop, High Density Wood Fiber Minimum 1" thick	**1, 2, 6 or 11**	**1:2 ft^2**

Barrier: None.

Membrane: Fully adhere any RubberGard® EPDM membrane to the insulation with Firestone Bonding Adhesive BA-2004 T at a rate of 45-60 sq. ft./gal. (coverage area is for adhesive application to both mating surfaces).

Surfacing: (Optional) Firestone Acryli-Top (PC-100) to be applied at 1 gal/100 sq. ft. with an airless sprayer. If roller applied, two separate coats of 200 sq. ft. per gallon are required.

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

Membrane Type: Single Ply, EPDM, Reinforced, Nonreinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel

System Type C(3): All layers of insulation simultaneously attached; membrane fully adhered.

All General and System Limitations shall apply.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ACFoam II		
Minimum 1.3" thick	**1, 2, 6, 8, 11, 16 or 19**	**1:2 ft^2**
ISO 95+ GL, ENRGY 3, ENRGY PSI-25		
Minimum 1.4" thick	**1, 2, 6, 8, 11, 16 or 19**	**1:2 ft^2**
Minimum 2" thick	**1 or 2**	**1:4 ft^2**
ISO 95+ Composite GL, Thermaroof Composite, Fesco Foam, ACFoam II Composite		
Minimum 1.5" thick	**1, 2, 6, 8, 11 or 16**	**1:2 ft^2**
FiberTop, High Density Wood Fiber		
Minimum 1" thick	**1, 2, 6 or 11**	**1:2 ft^2**

Note: All layers of insulation shall be simultaneously mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Barrier: None.

Membrane: Fully adhere any RubberGard® EPDM membrane to the insulation with Firestone Bonding Adhesive BA-2004 T at a rate of 45-60 sq. ft./gal. (coverage area is for adhesive application to both mating surfaces).

Surfacing: (Optional) Firestone Acryli-Top (PC-100) to be applied at 1 gal/100 sq. ft. with an airless sprayer. If roller applied, two separate coats of 200 sq. ft. per gallon are required.

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

Membrane Type: Single Ply, EPDM, Reinforced, Nonreinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel

System Type C(4): Insulation attached; membrane fully adhered.

All General and System Limitations shall apply.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 1.5" thick	**1 or 2**	**1:2 ft^2**

Note: All layers of insulation shall be simultaneously mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Barrier: None.

Membrane: Fully adhere any RubberGard® EPDM membrane to the insulation with Firestone Bonding Adhesive BA-2004 T at a rate of 45-60 sq. ft./gal. (coverage area is for adhesive application to both mating surfaces).

Surfacing: (Optional) Firestone Acryli-Top (PC-100) to be applied at 1 gal/100 sq. ft. with an airless sprayer. If roller applied, two separate coats of 200 sq. ft. per gallon are required.

Maximum Design Pressure: –75 psf (See General Limitation #9)

Membrane Type: Single Ply, EPDM, Reinforced, Nonreinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel deck

System Type C(5): All layers of insulation simultaneously attached; membrane fully adhered.

All General and System Limitations apply.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL **Minimum 1.5" thick**	**N/A**	**N/A**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Firestone RetroGard HD **Minimum ½" thick**	**1**	**1:3.2 ft^2**

Membrane: Firestone (Reinforced or Non-Reinforced) Standard RubberGard, Fire Retardant RubberGard, RubberGard LS-FR, RubberGard LS-FR PT, RubberGard MAX, RubberGard MAX PT, RubberGard MAX FR, RubberGard EcoWhite or RubberGard Platinum EPDM membrane fully adhered to the cover board with Firestone Bonding Adhesive BA-2004 T at a rate of 60 sq. ft./gal. (coverage area is for adhesive application to both mating surfaces). The roof cover side and end laps are sealed with Firestone RubberGard SA-1065 Splice Adhesive or QuickSeam Splice Tape.

Maximum Design Pressure: –45 psf (See General Limitation #9)

Membrane Type: Single Ply, EPDM, Reinforced, Nonreinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel deck secured using ¼" steel structural supports spaced a maximum 6ft o.c. with ITW Buildex Traxx 5 fasteners spaced maximum 6" o.c. at supports. Side laps, secured 24" o.c. with ITW Buildex TRAXX 1 fasteners

System Type C(6): All layers of insulation simultaneously attached; membrane fully adhered.

All General and System Limitations apply.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL **Minimum 1.5" thick**	**N/A**	**N/A**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Firestone RetroGard HD **Minimum ½" thick**	**1**	**1:1.33 ft^2**

Membrane: Firestone (Reinforced or Non-Reinforced) Standard RubberGard, Fire Retardant RubberGard, RubberGard LS-FR, RubberGard LS-FR PT, RubberGard MAX, RubberGard MAX PT, RubberGard MAX FR, RubberGard EcoWhite or RubberGard Platinum EPDM membrane fully adhered to the cover board with Firestone Bonding Adhesive BA-2004 T at a rate of 60 sq. ft./gal. (coverage area is for adhesive application to both mating surfaces). The roof cover side and end laps are sealed with Firestone RubberGard SA-1065 Splice Adhesive or QuickSeam Splice Tape.

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

Membrane Type: Single Ply, EPDM, Reinforced, Nonreinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel deck is secured to minimum ¼" thick supports spaced 6 ft. o.c. with Traxx 5 fasteners and ¾" diameter washers spaced 6" o.c. (two fasteners and washers installed at each bearing attachment point) and Traxx 1 fasteners 14" o.c. at the side laps

System Type C(7): All layers of insulation simultaneously attached; membrane fully adhered.

All General and System Limitations apply.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 1.5" thick	**N/A**	**N/A**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Dens Deck Prime Minimum ½" thick	**1**	**1:1.33 ft^2**

Membrane: Firestone (Reinforced or Non-Reinforced) Standard RubberGard, Fire Retardant RubberGard, RubberGard LS-FR, RubberGard LS-FR PT, RubberGard MAX, RubberGard MAX PT, RubberGard MAX FR or RubberGard Platinum EPDM membrane fully adhered to the cover board with Firestone UltraPly Bonding Adhesive at a rate of 60 sq. ft./gal. (120 sq. ft./gal. to both the underside of the roof cover and substrate). The roof cover side and end laps are first primed on both sides with Firestone QuickSeam Primer and sealed with Firestone 3" wide QuickSeam Splice Tape, RubberGard SA-1065 Splice Adhesive or Pliobond 9053 splice adhesive applied at a rate of 120 lineal ft/gal.

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

Membrane Type:	Single Ply, EPDM, Reinforced, Nonreinforced
Deck Type 2I:	Steel, Insulated
Deck Description:	18-22 ga. steel deck is secured to minimum ¼" thick supports spaced 6 ft. o.c. with Traxx 5 fasteners and ¾" diameter washers spaced 6" o.c. (two fasteners and washers installed at each bearing attachment point) and Traxx 1 fasteners 14" o.c. at the side laps
System Type C(8):	All layers of insulation simultaneously attached; membrane fully adhered.

All General and System Limitations apply.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 1.5" thick	**N/A**	**N/A**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Dens Deck Prime Minimum ½" thick	**1 or 2**	**1:1 ft^2**

Membrane:	Firestone (Reinforced or Non-Reinforced) Standard RubberGard, Fire Retardant RubberGard, RubberGard LS-FR, RubberGard LS-FR PT, RubberGard MAX, RubberGard MAX PT, RubberGard MAX FR or RubberGard Platinum EPDM membrane fully adhered to the cover board with Firestone UltraPly Bonding Adhesive at a rate of 60 sq. ft./gal. (120 sq. ft./gal. to both the underside of the roof cover and substrate). The roof cover side and end laps are first primed on both sides with Firestone QuickSeam Primer and sealed with Firestone 3" wide QuickSeam Splice Tape, RubberGard SA-1065 Splice Adhesive or Pliobond 9053 splice adhesive applied at a rate of 120 lineal ft/gal.
Maximum Design Pressure:	–105 psf (See General Limitation #7)

Membrane Type:	Single Ply, EPDM, Reinforced, Nonreinforced
Deck Type 2I:	Steel, Insulated
Deck Description:	18-22 ga. steel deck is secured to minimum ¼" supports spaced 6 ft. o.c. with Traxx 5 fasteners spaced 6" o.c. (two fasteners installed at each bearing attachment point) and Traxx 1 fasteners 12" o.c. at the side laps
System Type C(9):	All layers of insulation simultaneously attached; membrane fully adhered.

All General and System Limitations apply.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 1.5" thick	**N/A**	**N/A**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Plywood Minimum 19/32" thick	**2**	**1:1 ft^2**

Membrane: Firestone (Reinforced or Non-Reinforced) Standard RubberGard, Fire Retardant RubberGard, RubberGard LS-FR, RubberGard LS-FR PT, RubberGard MAX, RubberGard MAX PT, RubberGard MAX FR, RubberGard EcoWhite or RubberGard Platinum EPDM membrane fully adhered to the cover board with Firestone BA-2004 T Bonding Adhesive at a rate of 60 sq. ft./gal. (coverage area is for adhesive application to both mating surfaces for a total of 120 sq. ft./gal). The roof cover side and end laps are primed with Firestone QuickSeam Primer and sealed with Firestone 3" wide QuickSeam Splice Tape or the laps are sealed with Firestone RubberGard SA-1065 Splice Adhesive or Pliobond 9053 splice adhesive applied at a rate of 120 lineal ft/gallon.

Maximum Design Pressure: –180 psf (See General Limitation #7)

Membrane Type: Single Ply, EPDM, Reinforced, Nonreinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel deck is secured to minimum ¼" supports spaced 6 ft. o.c. with Traxx 5 fasteners spaced 6" o.c. (two fasteners installed at each bearing attachment point) and Traxx 1 fasteners 24" o.c. at the side laps

System Type C(10): Insulation attached; membrane fully adhered.

All General and System Limitations shall apply.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 1.5" thick	**1**	**1:1.6 ft^2**

Note: All layers of insulation shall be simultaneously mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Firestone (Reinforced or Non-Reinforced) Standard RubberGard, Fire Retardant RubberGard, RubberGard LS-FR, RubberGard LS-FR PT, RubberGard MAX, RubberGard MAX PT, RubberGard MAX FR or RubberGard Platinum EPDM membrane fully adhered to the insulation with Firestone UltraPly Bonding Adhesive applied at a rate of 60 ft^2/gal (120 ft^2/gal to both the underside of the roof cover and the substrate). Side and end laps sealed with Firestone RubberGard SA-1065 Splice Adhesive or QuickSeam Splice Tape.

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

Membrane Type: Single Ply, EPDM, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel

System Type D(1): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Styropor, Huntsman, STYROFOAM, FOAMULAR Minimum 1" thick	**N/A**	**N/A**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
FiberTop, High Density Wood Fiber Minimum ½" thick	**1, 2, 6 or 11**	**1:4 ft^2**

Barrier: Gypsum board, minimum thickness ½", or ¾" perlite, placed between the deck and the polystyrene base layer insulation.

Membrane: Mechanically attach any 7 1/2' Reinforced RubberGard® EPDM membrane with Firestone AP or HD fasteners in 2" Seam Plates (or metal battens) 6" o.c. within the 7" wide side laps, or any nominal 10' Reinforced RubberGard® EPDM membrane with Firestone AP or HD Fasteners in metal batten strip only 6" o.c. with 7" side laps.

Or mechanically attach Firestone QuickSeam R.M.A. Strip along its 4" wide center section with Firestone Polymer or Metal Batten Strip and All-Purpose or Heavy-Duty Fasteners along the batten strip or with Firestone Seam Plates or V-Plates with All-Purpose or Heavy-Duty Fasteners; fasteners shall be 6" o.c. within the QuickSeam R.M.A Strip spaced 7-1/2 ft. o.c. Any Reinforced RubberGard EPDM membrane is adhered to each QuickSeam R.M.A. Strip.

Surfacing: (Optional) Firestone Acryli-Top (PC-100) to be applied at 1 gal/100 sq. ft. with an airless sprayer. If roller applied, two separate coats of 200 sq. ft. per gallon are required.

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

Membrane Type: Single Ply, EPDM, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel

System Type D(2): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Multi-Max, Multi-Max FA, ACFoam II Minimum 1.3" thick	**N/A**	**N/A**
ISO 95+ GL, ENRGY 3, ENRGY PSI-25 Minimum 1.4" thick	**N/A**	**N/A**
ISO 95+ GL Composite, FM Approved Composite Minimum 1.5" thick	**N/A**	**N/A**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
FiberTop, High Density Wood Fiber Minimum ½" thick	**1, 2, 6 or 11**	**1:4 ft^2**

Barrier: None.

Membrane: Mechanically attach any 7 1/2' Reinforced RubberGard® EPDM membrane with Firestone AP or HD fasteners in 2" Seam Plates (or metal battens) 6" o.c. within the 7" wide side laps, or any nominal 10' Reinforced RubberGard® EPDM membrane with Firestone AP or HD Fasteners in metal batten strip only 6" o.c. with 7" side laps.

Or mechanically attach Firestone QuickSeam R.M.A. Strip along its 4" wide center section with Firestone Polymer or Metal Batten Strip and All-Purpose or Heavy-Duty Fasteners along the batten strip or with Firestone Seam Plates or V-Plates with All-Purpose or Heavy-Duty Fasteners; fasteners shall be 6" o.c. within the QuickSeam R.M.A Strip spaced 7-1/2 ft. o.c. Any Reinforced RubberGard EPDM membrane is adhered to each QuickSeam R.M.A. Strip.

Surfacing: (Optional) Firestone Acryli-Top (PC-100) to be applied at 1 gal/100 sq. ft. with an airless sprayer. If roller applied, two separate coats of 200 sq. ft. per gallon are required.

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

Membrane Type: Single Ply, EPDM, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel

System Type D(3): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
ISO 95+ GL, ACFoam II Minimum 1.3" thick	**1, 2, 6, 8, 11, 16 or 19**	**1:4 ft^2**
ENRGY 3, ENRGY PSI-25 Minimum 1.4" thick	**1, 2, 6, 8, 11 or 16**	**1:4 ft^2**
ISO 95+ Composite GL, Thermaroof Composite, Fesco Foam, ACFoam II Composite Minimum 1.5" thick	**1, 2, 6, 8, 11 or 16**	**1:4 ft^2**
FiberTop, High Density Wood Fiber Minimum ½" thick	**1, 2, 6, 11 or 16**	**1:4 ft^2**

Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Barrier: None.

Membrane: Mechanically attach any 7 1/2' Reinforced RubberGard® EPDM membrane with Firestone AP or HD fasteners in 2" Seam Plates (or metal battens) 6" o.c. within the 7" wide side laps, or any nominal 10' Reinforced RubberGard® EPDM membrane with Firestone AP or HD Fasteners in metal batten strip only 6" o.c. with 7" side laps.

Or mechanically attach Firestone QuickSeam R.M.A. Strip along its 4" wide center section with Firestone Polymer or Metal Batten Strip and All-Purpose or Heavy-Duty Fasteners along the batten strip or with Firestone Seam Plates or V-Plates with All-Purpose or Heavy-Duty Fasteners; fasteners shall be 6" o.c. within the QuickSeam R.M.A Strip spaced 7-1/2 ft. o.c. Any Reinforced RubberGard EPDM membrane is adhered to each QuickSeam R.M.A. Strip.

Surfacing: (Optional) Firestone Acryli-Top (PC-100) to be applied at 1 gal/100 sq. ft. with an airless sprayer. If roller applied, two separate coats of 200 sq. ft. per gallon are required.

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

Membrane Type: Single Ply, EPDM, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga., Grade 33 steel deck is secured to minimum ¼" supports spaced 6 ft. o.c. with Traxx 5 fasteners spaced 6" o.c. and Traxx 1 fasteners 30" o.c. at the side laps

System Type D(4): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 1.5" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane: Mechanically attach Firestone RubberGard MAX® or RubberGard MAX FR® EPDM membrane with Firestone HD fasteners in V-Plates or Seam Plates 6" o.c. within the 7" wide side laps in rows 7 feet o.c. The roof cover laps are adhered by priming both lap surfaces with QuickPrime primer then applying 7" wide QuickSeam Splice Tape.

Or

Mechanically attach Firestone RubberGard MAX®, RubberGard MAX PT or RubberGard MAX FR® EPDM membrane with Firestone All-Purpose or Heavy-Duty fasteners 6" o.c. in 1" wide Firestone Coiled Metal Batten Strips centered within the 6" wide side laps in rows 7 ft. o.c. The roof cover laps are washed with Firestone Splice Wash and adhered with Firestone SA-1065 Splice Adhesive brush applied at approximately 80 linear ft/gal or primed with Firestone QuickPrime Plus applied at 200 – 250 ft^2/gal and adhered with Firestone QuickSeam Splice Tape.

Or

Mechanically attach Firestone QuickSeam R.M.A. Strip along its 4" wide center section with Firestone Polymer or Metal Batten Strip and All-Purpose or Heavy-Duty Fasteners along the batten strip or with Firestone Seam Plates or V-Plates with All-Purpose or Heavy-Duty Fasteners; fasteners shall be 6" o.c. within the QuickSeam R.M.A Strip spaced 7 ft. o.c. RubberGard MAX or RubberGard MAX FR or RubberGard MAX PT EPDM membrane is adhered to each QuickSeam R.M.A. Strip.

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

Membrane Type: Single Ply, EPDM, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga., Grade 80 steel deck is secured to minimum ¼" supports spaced 6 ft. o.c. with Traxx 5 fasteners spaced 6" o.c. and Traxx 1 fasteners 30" o.c. at the side laps

System Type D(5): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 1.5" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane: Mechanically attach Firestone RubberGard MAX®, RubberGard MAX PT or RubberGard MAX FR® EPDM membrane with Firestone Heavy-Duty fasteners 6" o.c. in 1" wide Firestone Coiled Metal Batten Strips or ¾" or 1" Firestone Polymer Batten Strips centered within the 6" wide side laps in rows 7 ft. o.c. The roof cover laps are washed with Firestone Splice Wash and adhered with Firestone SA-1065 Splice Adhesive brush applied at approximately 80 linear ft/gal or primed with Firestone QuickPrime Plus applied at 200 – 250 ft^2/gal and adhered with Firestone QuickSeam Splice Tape.

Or

Mechanically attach Firestone QuickSeam R.M.A. Strip along its 4" wide center section with Firestone Polymer or Metal Batten Strip and All-Purpose or Heavy-Duty Fasteners along the batten strip or with Firestone Seam Plates or V-Plates with All-Purpose or Heavy-Duty Fasteners; fasteners shall be 6" o.c. within the QuickSeam R.M.A Strip spaced 7 ft. o.c. RubberGard MAX, RubberGard MAX FR or RubberGard MAX PT EPDM membrane is adhered to each QuickSeam R.M.A. Strip.

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

Membrane Type: Single Ply, EPDM, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga., Grade 80 steel deck is secured to minimum ¼" supports spaced 6 ft. o.c. with Traxx 5 fasteners spaced 6" o.c. and Traxx 1 fasteners 24" o.c. at the side laps

System Type D(6): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 1.5" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane: Mechanically attach Firestone RubberGard MAX® or RubberGard MAX FR® EPDM membrane (minimum 0.060 in. thick) with Firestone All-Purpose Fasteners and V-Plates 6" o.c. within the 6" wide side laps in rows 9 ft. 6 in. o.c. The roof cover laps are adhered by priming both lap surfaces with QuickPrime primer then applying 6" wide QuickSeam Splice Tape.

Or

Mechanically attach Firestone QuickSeam R.M.A. Strip along its 4" wide center section with Firestone Polymer or Metal Batten Strip and All-Purpose or Heavy-Duty Fasteners along the batten strip or with Firestone Seam Plates or V-Plates with All-Purpose or Heavy-Duty Fasteners; fasteners shall be 6" o.c. within the QuickSeam R.M.A Strip spaced 9 ft. 6 in. o.c. RubberGard MAX or RubberGard MAX FR EPDM membrane (minimum 0.060 in. thick) is adhered to each QuickSeam R.M.A. Strip.

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

Membrane Type: Single Ply, EPDM, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga., Grade 80 steel deck is secured to minimum ¼" supports spaced 6 ft. o.c. with Traxx 5 fasteners spaced 6" o.c. and Traxx 1 fasteners 24" o.c. at the side laps

System Type D(7): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 1.5" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane: Mechanically attach Firestone RubberGard MAX® or RubberGard MAX FR® EPDM membrane with Firestone HD Plus fasteners 12" o.c. in ¾" or 1" Polymer Batten Strips centered within the 6" wide side laps in rows 9 ft. 6 in. o.c. The roof cover laps are adhered by priming both lap surfaces with QuickPrime primer then applying 5.25" wide QuickSeam Splice Tape.

Or

Mechanically attach Firestone QuickSeam R.M.A. Strip along its 4" wide center section with Firestone Polymer or Metal Batten Strip and All-Purpose or Heavy-Duty Fasteners along the batten strip or with Firestone Seam Plates or V-Plates with All-Purpose or Heavy-Duty Fasteners; fasteners shall be 12" o.c. within the QuickSeam R.M.A Strip spaced 9 ft. 6 in. o.c. RubberGard MAX or RubberGard MAX FR EPDM membrane is adhered to each QuickSeam R.M.A. Strip.

Maximum Design Pressure: –60 psf (See General Limitation #7)

Membrane Type:	Single Ply, EPDM, Reinforced
Deck Type 2I:	Steel, Insulated
Deck Description:	18-22 ga., Grade 80 steel deck is secured to minimum ¼" supports spaced 6 ft. o.c. with Traxx 5 fasteners spaced 6" o.c. and Traxx 1 fasteners 24" o.c. at the side laps
System Type D(8):	Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 1.5" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane:

Mechanically attach Firestone RubberGard MAX, RubberGard MAX FR or RubberGard MAX PT EPDM membrane with Firestone HD Plus fasteners 12" o.c. in Firestone Coiled Metal Batten Strips centered within the 7" wide side laps in rows 7 ft. o.c. The roof cover laps are sealed by priming both lap surfaces with QuickPrime Plus then applying 7" wide QuickSeam Splice Tape or sealed with Firestone RubberGard SA-1065 Splice Adhesive or Pliobond 9053 splice adhesive applied at a rate of 120 lineal ft/gal.

Or

Mechanically attach Firestone QuickSeam R.M.A. Strip along its 4" wide center section with Firestone Polymer or Metal Batten Strip and All-Purpose or Heavy-Duty Fasteners along the batten strip or with Firestone Seam Plates or V-Plates with All-Purpose or Heavy-Duty Fasteners; fasteners shall be 12" o.c. within the QuickSeam R.M.A Strip spaced 7 ft. o.c. RubberGard MAX RubberGard MAX FR, or RubberGard MAX PT EPDM membrane is adhered to each QuickSeam R.M.A. Strip.

Or

Mechanically attach Firestone Standard Reinforced RubberGard, Fire Retardant Reinforced RubberGard, RubberGard MAX, RubberGard MAX PT or RubberGard MAX FR membrane with Firestone HD Plus fasteners 12" o.c. in Firestone ¾" or 1" Polymer Batten Strip cetntered within the 7" wide side laps in rows 9-½ ft.o.c. The roof cover laps are sealed by priming both lap surfaces with QuickSeam Primer then applying 7" wide QuickSeam Splice Tape or sealed with Firestone RubberGard SA-1065 Splice Adhesive or Pliobond 9053 splice adhesive applied at a rate of 120 lineal ft/gal. (from FM 3029384)

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

Membrane Type: Single Ply, EPDM, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga., Grade 80 steel deck is secured to minimum ¼" supports spaced 6 ft. o.c. with Traxx 5 fasteners spaced 6" o.c. and Traxx 1 fasteners 12" o.c. at the side laps

System Type D(9): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 1.5" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane: Mechanically attach Firestone RubberGard MAX, RubberGard MAX FR or RubberGard MAX PT EPDM membrane with Firestone HD Plus fasteners 6" o.c. in Firestone Coiled Metal Batten Strips centered within the 7" wide side laps in rows 7 ft. o.c. The roof cover laps are sealed by priming both lap surfaces with QuickPrime Plus then applying 7" wide QuickSeam Splice Tape or sealed with Firestone RubberGard SA-1065 Splice Adhesive or Pliobond 9053 splice adhesive applied at a rate of 120 lineal ft/gal.

Or mechanically attach Firestone QuickSeam R.M.A. Strip along its 4" wide center section with Firestone Polymer or Metal Batten Strip and All-Purpose or Heavy-Duty Fasteners along the batten strip or with Firestone Seam Plates or V-Plates with All-Purpose or Heavy-Duty Fasteners; fasteners shall be 6" o.c. within the QuickSeam R.M.A Strip spaced 7 ft. o.c. RubberGard MAX RubberGard MAX FR, or RubberGard MAX PT EPDM membrane is adhered to each QuickSeam R.M.A. Strip.

Maximum Design Pressure: –60 psf (See General Limitation #7)

Membrane Type: Single Ply, EPDM, Reinforced

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga., Grade 80 steel deck is secured to minimum ¼" supports spaced 6 ft. o.c. with Traxx 5 fasteners spaced 6" o.c. and Traxx 1 fasteners 24" o.c. at the side laps

System Type D(10): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply.

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ISO 95+ GL Minimum 1.5" thick	**N/A**	**N/A**

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane.

Membrane: Firestone RubberGard MAX, RubberGard MAX PT, RubberGard MAX FR or Standard Reinforced RubberGard EPDM roof cover mechanically fastened to the deck with Firestone Heavy-Duty or Heavy-Duty Plus Fasteners and 1 in. wide Firestone Coiled Metal Batten Strip 6 in. o.c. within the 6 in. wide side laps in rows spaced 7 ft. o.c. Side laps primed with Firestone QuickPrime Plus applied at 200-250 ft^2/gal and adhered with Firestone QuickSeam Splice Tape.

Maximum Design Pressure: -67.5 psf with Heavy-Duty Fasteners (See General Limitation #7)
-90.0 psf with Heavy-Duty Plus Fasteners (See General Limitation #7)

STEEL DECK SYSTEM LIMITATIONS:

1 If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117 and/or RAS 137, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.

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.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered 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 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9B-72 of the Florida Administrative Code.

END OF THIS ACCEPTANCE