

# MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

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

#### **NOTICE OF ACCEPTANCE (NOA)**

Firestone Building Products Company, LLC 200 4th Ave. South Nashville, TN 37201

#### **SCOPE:**

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (in Miami-Dade County) and/or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

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

#### **DESCRIPTION:** Firestone EPDM Single Ply Roof Systems over Concrete 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 renews NOA No. 15-0224.05 and consists of pages 1 through 38. The submitted documentation was reviewed by Hamley Pacheco, P.E.

MIAMI-DADE COUNTY
APPROVED

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#### **ROOFING SYSTEM APPROVAL**

Category:RoofingSub-Category:Single PlyMaterial:EPDMDeck Type:ConcreteMaximum Design Pressure:-405 psf.

# TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

		Test	Product
<b>Product</b>	<b>Dimensions</b>	<b>Specifications</b>	<b>Description</b>
RubberGard MAX®	45, 60 & 75 mil	<b>ASTM D4637</b>	Polyester scrim reinforced EPDM
		Type II	membrane.
RubberGard MAX FR®	45, 60 & 75 mil	ASTM D4637	Fire Retardant Polyester scrim
RubberGard MAX PT®	45 & 60 mil	Type II ASTM D4637	reinforced EPDM membrane . Polyester scrim reinforced EPDM
Rubbel Gald Will 1	43 <b>&amp;</b> 00 HH	Type II	membrane with integrated 3" pre-
		J 1	applied seam tape.
RubberGard Platinum®	90 mil	<b>ASTM D4637</b>	Non-Reinforced EPDM membrane.
	45.0.60.11	Type I	
RubberGard LS-FR®	45 & 60 mil	ASTM D4637 Type I	Fire Retardant Non-Reinforced EPDM membrane.
RubberGard LS-FR PT®	60 mil	ASTM D4637	Fire Retardant Non-Reinforced
	00 1111	Type I	EPDM membrane with integrated
			3" pre-applied seam tape.
RubberGard EcoWhite®	60 & 90 mil	ASTM D4637	Non-Reinforced, bi-laminate, white
RubberGard EcoWhite® PT	60 mil	Type I ASTM D4637	on black EPDM membrane.
Rubbel Gald Ecowillie F1	OO IIIII	Type I	Non-Reinforced, bi-laminate, white on black EPDM membrane with
		13001	QuickSeam Tape.
EPDM FormFlash	various	<b>ASTM D4811</b>	Self-curing EPDM flashing
Reinforced Perimeter Fastening	.045" x 6" x 100'	<b>ASTM D4637</b>	Non-dusted EPDM reinforced strip
Strip			for non-penetrating base tie-in
D.A. 2004 F	ر 11 '1	D : .	details
BA-2004 T	5 gallon pail	Proprietary	Neoprene based bonding adhesive
Single-Ply LVOC Bonding	5 gal. pail	Proprietary	Solvent based bonding adhesive.
Adhesive Single-Ply LVOC Bonding	5 gal. pail	Proprietary	Solvent based bonding adhesive.
Adhesive 1168	5 gail pair	Troprictary	sorvent based bonding adnesive.
Water Based Bonding	5 gal. pail	Proprietary	Water based bonding adhesive.
Adhesive-P			
Single-Ply QuickPrime Primer	3 gal. pail	Proprietary	Solvent based primer used to clean EPDM
EcoWhite® QuickSeam Splice	3" x 100'	Proprietary	Tape for field splicing
Tape	6" x 100'		
SA-1065 Splice Adhesive	1 gallon and 5 gallon pails	Proprietary	Synthetic polymer based adhesive



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		Test	Product
<b>Product</b>	<b>Dimensions</b>	<b>Specifications</b>	<b>Description</b>
I.S.O. Stick	5 gal. & 1500 ml	Proprietary	A dual component polyurethane adhesive.
I.S.O. Twin Pack Insulation Adhesive	1500 ml	Proprietary	A dual component polyurethane adhesive.
I.S.O. Fix II	30 lbs.	Proprietary	A single component polyurethane adhesive.
QuickPrime Plus, Single-Ply LVOC Primer	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 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
Pourable Sealer S-10	.78 gallon, Part A .10 gallon, Part B	Proprietary	Two part polyurethane sealant
V-Force	45" x 133.8'	Proprietary	SBS modified vapor barrier sheet with woven polyethylene top surfacing and self-adhesive backing



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## **APPROVED INSULATIONS:**

#### TABLE 2

<b>Product Name</b>	<b>Product Description</b>	Manufacturer (With Current NOA)
ISO 95+ GL, ISO 95+ GL Tapered	Isocyanurate Insulation	Firestone Building Products
ISOGARD HD	High density Polyisocyanurate for use	Company, LLC Firestone Building Products
	as a cover board	Company, LLC
RESISTA and tapered	Polyisocyanurate foam core laminated to a coated fiberglass facer	Firestone Building Products Company, LLC
ISOGARD HD Composite	Polyisocyanurate with a coated	Firestone Building Products
Dana Dank Dana Dank Drima	fiberglass facer composite insulation.	Company, LLC
DensDeck, DensDeck Prime	Silicon treated gypsum	Georgia Pacific Gypsum LLC
SECUROCK Gypsum-Fiber Roof Board	Gypsum fiber roof board	USG Corp.

## **APPROVED FASTENERS:**

#### TABLE 3

Fastener <u>Number</u>	Product <u>Name</u>	Product <u>Description</u>	<b>Dimensions</b>	Manufacturer (With Current NOA)
1.	Firestone All-Purpose	Insulation and membrane	Various	Firestone Building
		fastener		Products Company, LLC
2.	Firestone Heavy-Duty	Insulation and membrane	Various	Firestone Building
		fastener		Products Company, LLC
3.	Concrete Drive	Insulation and membrane	Various	Firestone Building
	Fastener	fastener for concrete decks.		Products Company, LLC
4.	2" Metal Plate	Membrane seam attachment	2" dia.	Firestone Building
		plate.		Products Company, LLC
5.	Insulation Fastening	Galvalume insulation plate	3" diameter	Firestone Building
	Plate			Products Company, LLC
6.	V-Plate	Membrane seam attachment	21/4" dia.	Firestone Building
		plate.		Products Company, LLC
7.	Metal Batten Bar	Galvalume AZ55 batten	10' long,	Firestone Building
		strip	1" wide	Products Company, LLC
8.	Coiled Metal Batten	Galvalume AZ55 batten	220' long,	Firestone Building
	Bar	strip	1" wide	Products Company, LLC
9.	Firestone Polymer	Polymer, corrosion –free,	250' long,	Firestone Building
	Batten Strips	batten strip.	3/4 or 1" wide	Products Company, LLC



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## **EVIDENCE SUBMITTED:**

<b>Test Agency</b>	<b>Test Identifier</b>	<b>Description</b>	<u>Date</u>
Factory Mutual Research Corp.	1V1A7.AM	FM 4470	06/25/92
, and the second	1W3A4.AM	FM 4470	12/01/92
	1T7A3.AM	FM 4470	01/18/92
	1V6A9.AM	FM 4470	02/27/92
	2W6A2.AM	FM 4470	06/25/93
	2X9A8.AM	FM 4470	06/14/94
	3010822	FM 4470	07/31/02
	3014031	FM 4470	07/22/02
	3031293	FM 4470	11/29/07
	3028164	FM 4470	11/02/07
	3017797	FM 4470	10/07/04
	3011282	FM 4470	08/08/02
	3029384	FM 4470	02/28/08
	3033218	FM 4470	08/12/08
	3036256	FM 4470	04/27/09
	3038770	FM 4470	08/04/11
	3047398	FM 4470	08/15/13
	3038442	FM 4470	11/18/10
	3043994	FM 4470	02/15/12
	3035560	FM 4470	01/11/10
	3035017	FM 4470	04/15/09
	3038191	FM 4470	08/04/11
	3041939	FM 4470	08/14/12
	3041949	FM 4470	06/10/11
	3042909	FM 4470	08/03/11
	3045334	FM 4470	06/11/12
PRI Construction Materials	FBP-044-02-01.9	TAS 117-B/TAS 114-H/J	06/01/17
Technologies LLC	FBP-162-02-01.1	Physical Properties	05/15/14
	FBP-136-02-01	Physical Properties	10/01/13
	FBP-079-02-02	Physical Properties	06/25/18
Trinity ERD	F12260.02.09-2	TAS 114	02/04/09
	F9240.03.09-R2	ASTM D4637	07/30/09
	F9240.11.08-R1	ASTM D4637	07/10/09
	F9240.07.08-R2	ASTM D4637	07/10/09
	F13260.08.09-1	ASTM D4637	08/07/09
	F45950.05.14	ASTM D4637	05/13/14



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#### APPROVED ASSEMBLIES

EPDM, Reinforced, Non-reinforced **Membrane Type:** 

Deck Type 3I: Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

One or more layers of insulation adhered with approved asphalt; membrane System Type A(1):

fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Insulation Layer Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL

Minimum 1.5" thick N/A N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs./100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

Fire Barrier: (Optional) Install one or two plies of UL Classified or FM Approved ply or base

sheet directly to the primed concrete deck with hot asphalt at an application rate of

20-40 lbs./sq.

Fully adhere any Firestone RubberGard® EPDM membrane to the insulation with Membrane:

BA-2004 T, Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding

Adhesive 1168 at a rate of 60 sq. ft./gal.

Maximum Design

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



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

**System Type A(2):** One or more layers of insulation adhered with approved asphalt; membrane

fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISO 95+ GL		
Minimum 1.5" thick	N/A	N/A
Middle Insulation Layer (Optional)	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
Tapered ISO 95+ GL		•
Minimum ½" thick start with a ¼: 12 taper	N/A	N/A
<b>Top Insulation Layer (Optional)</b>	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum ¼" thick	N/A	N/A

Note: All insulation shall be adhered in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

Membrane: Fully adhere any Firestone EPDM membrane to the insulation with BA 2004 T or

Single-Ply LVOC Bonding Adhesive 1168 at a rate of 60 sq. ft./gal.

Maximum Design

Pressure: -165 psf. withcover board (See General Limitation #9)

-195 psf. without cover board (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

**System Type A(3):** One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

<b>Base Insulation Layer</b>	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ISO 95+ GL Minimum 1.5" thick	N/A	N/A
<b>Top Insulation Layer</b>	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ISOGARD HD Minimum ½" thick	N/A	N/A

Note: All insulation layers shall be adhered with Firestone I.S.O. Stick Insulation Adhesive applied in <sup>3</sup>/<sub>4</sub>" to 1". 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 RubberGard EcoWhite EPDM membrane fully adhered to the cover

board with BA 2004 T, Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding Adhesive 1168 at a rate of 60 sq. ft./gal. The roof cover side and end

laps are sealed with SA-1065 Splice Adhesive or QuickSeam Tape.

Maximum Design

Pressure: -247 psf. (See General Limitation #9)

-112.5 psf. with Single-Ply LVOC Bonding Adhesive (General Limitation #9)

-225 psf. with Single-Ply LVOC Bonding Adhesive 1168

(See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

**System Type A(4):** One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

<b>Base Insulation Layer</b>	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ISO 95+ GL	,	•
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
-	(Table 3)	Density/ft <sup>2</sup>
ISOGARD HD	,	·
Minimum ½" thick	N/A	N/A

Note: All insulation layer shall be adhered with Firestone I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$  to  $\frac{3}{4}$  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 RubberGard EcoWhite EPDM membrane fully adhered to the cover

board with BA 2004 T, Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding Adhesive 1168 at a rate of 60 sq. ft./gal. The roof cover side and end

laps are sealed with SA-1065 Splice Adhesive or QuickSeam Tape.

Maximum Design

Pressure: -222 psf. with BA 2004 T or Single-Ply LVOC Bonding Adhesive 1168

(See General Limitaion #9)

-112.5 psf. with Single-Ply LVOC Bonding Adhesive (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

**System Type A(5):** One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of vapor retarder.

Vapor Retarder: Firestone MB Base M base sheet adhered to the primed concrete deck with

Firestone I.S.O. Twin Pack Insulation Adhesive applied at ½ - ¾ in. wide

ribbons spaced 12 in. o.c.

Base Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISO 95+ GL		-
Minimum 1.5" thick	N/A	N/A
Middle Insulation Layer (Optional)	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISO 95+ GL		•
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		-
Minimum ¼" thick	N/A	N/A

Note: All 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 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 BA 2004 T, Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding Adhesive 1168 at a rate of 60 sq. ft./gal. The roof cover side and end laps are

sealed with SA-1065 Splice Adhesive or QuickSeam Tape.

Maximum Design

Pressure: -232.5 psf. with BA 2004 T or Single-Ply LVOC Bonding Adhesive 1168

(See General Limitation #9)

-112.5 psf. with Single-Ply LVOC Bonding Adhesive (See General Limitation #9)

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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

**System Type A(6):** One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of vapor retarder.

Vapor Retarder: Firestone SBS PolyTorch or SBS Glass Torch Base sheet torch adhered to the

primed concrete deck.

Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISO 95+ GL		
Minimum 1.5" thick	N/A	N/A
Middle Insulation Layer (Optional)	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
(Optional) ISO 95+ GL		
Minimum 1.5" thick	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum ¼" thick	N/A	N/A

Note: All 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 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 BA 2004 T, Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding Adhesive 1168 at a rate of 60 sq. ft./gal. The roof cover side and end laps are

sealed with SA-1065 Splice Adhesive or QuickSeam Tape.

Maximum Design

Pressure: -232.5 psf. with BA 2004 T or Single-Ply LVOC Bonding Adhesive 1168

(See General Limitation #9)

-112.5 psf. with Single-Ply LVOC Bonding Adhesive (See General Limitation #9)

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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

**System Type A(7):** One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer Insulation Fasteners Fastener (Table 3) Fastener

ISOGARD HD

Minimum ½" thick N/A N/A

Note: All insulation layers shall be adhered with Firestone I.S.O. Fix II applied in  $\frac{3}{4}$  in. -1 in. wide ribbons spaced 4 in. o.c. or I.S.O. Stick Insulation Adhesive applied in  $\frac{3}{4}$  in. -1 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 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 BA 2004 T, Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding Adhesive 1168 at a rate of 60 sq. ft./gal. or Water Based Bonding Adhesive-P roller applied at a rate of 120 ft²/gal. The minimum 3" side and end laps for RubberGard EcoWhite are sealed with EcoWhite QuickSeam Tape. The minimum 3" side and end laps for all RubberGard membranes are sealed with SA-1065

Splice Adhesive or QuickSeam Tape.

Maximum Design

Pressure: -360 psf. with BA 2004 T or Single-Ply LVOC Bonding Adhesive

(See General Limitation #9)

-225 psf. with Single-Ply LVOC Bonding Adhesive 1168

(See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

**System Type A(8):** One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

<b>Base Insulation Layer</b>	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ISO 95+ GL		·
Minimum 1.5" thick	N/A	N/A
Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ISO 95+ GL		•
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISOGARD HD		•
Minimum 1/2" thick	N/A	N/A

Note: All insulation layers shall be adhered with Firestone I.S.O. Twin Pack Adhesive applied in ½ in.-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 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 BA 2004 T, Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding Adhesive 1168 at a rate of 60 sq. ft./gal. The minimum 3" side and end laps for RubberGard EcoWhite are sealed with EcoWhite QuickSeam Tape. The minimum 3" side and end laps for all RubberGard membranes are sealed with SA-

1065 Splice Adhesive or QuickSeam Tape.

Maximum Design

Pressure: -247.5 psf. with BA 2004 T (See General Limitation #9)

-225 psf. with Single-Ply LVOC Bonding Adhesive 1168

(See General Limitation #9)

-112.5 psf. with Single-Ply LVOC Bonding Adhesive (See General Limitation #9)



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Concrete, Insulated Deck Type 3I:

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

System Type A(9): One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

<b>Base Insulation Layer</b>	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ISO 95+ GL	,	· ·
Minimum 1.5" thick	N/A	N/A
Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ISO 95+ GL		•
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ISOGARD HD		
Minimum ½" thick	N/A	N/A

Note: All insulation layers shall be adhered with Firestone I.S.O. Fix II applied in  $\frac{3}{4}$  in. -1 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 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 BA 2004 T, Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding Adhesive 1168 at a rate of 60 sq. ft./gal. The minimum 3" side and end laps for RubberGard EcoWhite are sealed with EcoWhite QuickSeam Tape . The minimum 3" side and end laps for all RubberGard membranes are sealed with SA-

1065 Splice Adhesive or QuickSeam Tape.

Maximum Design

Pressure: -277.5 psf. with BA 2004 T (See General Limitation #9)

-225 psf. with Single-Ply LVOC Bonding Adhesive 1168 (See General Limitation

-112.5 psf. with Single-Ply LVOC Bonding Adhesive (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

**System Type A(10):** One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

<b>Base Insulation Layer</b>	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ISO 95+ GL	. ,	·
Minimum 1.5" thick	N/A	N/A
Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ISO 95+ GL		·
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
-	(Table 3)	Density/ft <sup>2</sup>
ISOGARD HD		•
Minimum ½" thick	N/A	N/A

Note: All insulation layers shall be adhered with Firestone I.S.O. Stick Adhesive applied in  $\frac{3}{4}$  in. – 1 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 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 BA 2004 T, Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding Adhesive 1168 at a rate of 60 sq. ft./gal. The minimum 3" side and end laps for RubberGard EcoWhite are sealed with EcoWhite QuickSeam Tape . The minimum 3" side and end laps for all RubberGard membranes are sealed with SA-

1065 Splice Adhesive or QuickSeam Tape.

Maximum Design

Pressure: -322.5 psf. with BA 2004 T (See General Limitation #9)

-225 psf. with Single-Ply LVOC Bonding Adhesive 1168 (See General Limitation

#9)

-112.5 psf. with Single-Ply LVOC Bonding Adhesive (General Limitation #9)



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EPDM, Non-reinforced **Membrane Type:** 

Concrete, Insulated Deck Type 3I:

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

System Type A(11): One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

<b>Base Insulation Layer</b>	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ISO 95+ GL	. ,	•
Minimum 1.5" thick	N/A	N/A
Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ISO 95+ GL		·
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISOGARD HD		•
Minimum ½" thick	N/A	N/A

Note: All insulation layers shall be adhered with Firestone I.S.O. Stick Adhesive applied in 3/4 in. -1 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 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 Water Based Bonding Adhesive-P roller applied at a rate of 120 ft<sup>2</sup>/gal. The minimum 3" side and end laps for RubberGard EcoWhite are sealed with

EcoWhite OuickSeam Tape. The minimum 3" side and end laps for all

RubberGard membranes are sealed with SA-1065 Splice Adhesive or QuickSeam

Tape.

Maximum Design

Pressure: -277.5 psf. (See General Limitation #9)



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Membrane Type: EPDM, Non-reinforced Deck Type 3I: Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

**System Type A(12):** One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
RESISTA		
Minimum 1.5" thick	N/A	N/A
Middle Insulation Layer (Optional)	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
RESISTA		·
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer (Optional)	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISOGARD HD	,	·
Minimum ½" thick	N/A	N/A

Note: All insulation layers shall be adhered with Firestone I.S.O. Twin Pack Adhesive (not for ISOGARD HD) applied in  $\frac{1}{2}$  in.-  $\frac{3}{4}$  in. wide ribbons spaced 6 in. o.c. or I.S.O. Stick Insulation Adhesive or I.S.O. Fix II applied in  $\frac{3}{4}$  in. – 1 in. wide ribbons spaced 6 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 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 BA 2004 T. Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding

2004 T, Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding Adhesive 1168 at a rate of 60 sq. ft./gal. or Water Based Bonding Adhesive-P roller applied at a rate of 120 ft²/gal. The minimum 3" side and end laps for RubberGard EcoWhite are sealed with EcoWhite QuickSeam Tape. The minimum 3" side and end laps for all RubberGard membranes are sealed with SA-1065

Splice Adhesive or QuickSeam Tape.

Maximum Design

Pressure: -360 psf. with BA 2004 T or Single-Ply LVOC Bonding Adhesive over RESISTA

or ISOGARD HD. (See General Limitation #9)

-360 psf. with Single-Ply LVOC Bonding Adhesive 1168 over RESISTA

(See General Limitation #9)

-225 psf. with Single-Ply LVOC Bonding Adhesive 1168 over ISOGARD HD

(See General Limitation #9)



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EPDM, Non-reinforced **Membrane Type:** 

Deck Type 3I: Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

System Type A(13): One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

<b>Base Insulation Layer</b>	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
RESISTA	,	J
Minimum 1.5" thick	N/A	N/A
Middle Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
RESISTA		
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer (Optional)	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
Tapered RESISTA	,	·
Minimum 1/2" thick with 1/4:12 taper	N/A	N/A

Note: All insulation layers shall be adhered with Firestone I.S.O. Twin Pack Adhesive applied in ½ in.- ¾ in. wide ribbons spaced 6 in. o.c. or I.S.O. Stick Insulation Adhesive or I.S.O. Fix II applied in ¾ in. – 1 in. wide ribbons spaced 6 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 polvisocvanurate face down.

Membrane: Firestone 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 Water Based Bonding Adhesive-P roller applied at a rate of 120 ft<sup>2</sup>/gal. The minimum 3" side and end laps for RubberGard EcoWhite are sealed with EcoWhite QuickSeam Tape. The minimum 3" side and end laps for all

RubberGard membranes are sealed with SA-1065 Splice Adhesive or QuickSeam

Tape.

Maximum Design

Pressure: -405 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank primed with Firestone

V-Force SB Primer roller applied at a rate of 0.5 gal/sq.

**System Type A(14):** One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

**Vapor Retarder:** Firestone V-Force vapor retarder self-adhered to concrete deck primed with

Firestone V-Force primer.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²

**ISO 95+ GL** 

Minimum 1.5" thick N/A N/A

Note: All insulation layers shall be adhered with Firestone I.S.O. Twin Pack Adhesive applied in 1/2 in. -3/4 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 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 BA 2004 T a rate of 60 sq. ft./gal.The roof cover side and end laps are sealed with SA-1065 Splice Adhesive

or QuickSeam Tape.

Maximum Design

Pressure: -337.5 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank primed with Firestone

V-Force SB Primer roller applied at a rate of 0.5 gal/sq.

**System Type A(15):** One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

**Vapor Retarder:** Firestone V-Force vapor retarder self-adhered to concrete deck primed with

Firestone V-Force primer.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISO 95+ GL		
Minimum 1" thick	N/A	N/A
<b>Top Insulation Layer (Optional)</b>	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISO 95+ GL		
Minimum 1.5" thick	N/A	N/A

Note: All insulation layers shall be adhered with Firestone I.S.O. Stick Adhesive applied in 3/4 in. -1 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 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 BA 2004 T a rate of 60 sq. ft./gal.The roof cover side and end laps are sealed with SA-1065 Splice Adhesive

or QuickSeam Tape.

Maximum Design

Pressure: -262.5 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank primed with Firestone

V-Force SB Primer roller applied at a rate of 0.5 gal/sq.

**System Type A(16):** One or more layers of insulation adhered with approved adhesive; membrane

fully adhered.

**Vapor Retarder:** Firestone V-Force vapor retarder self-adhered to concrete deck primed with

Firestone V-Force primer.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

<b>Base Insulation Layer (Optional)</b>	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
Tapered ISO 95+ GL Minimum ½" thick with ¼:12 taper	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ISOGARD HD Minimum ½" thick	N/A	N/A
Dens Deck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/4"thick	l N/A	N/A
Plywood Minimum 19/32" thick	N/A	N/A

Note: All insulation layers shall be adhered with Firestone I.S.O. Stick Adhesive applied in 3/4 in. – 1 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 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 BA 2004 T a rate of 60 sq. ft./gal.The roof cover side and end laps are sealed with SA-1065 Splice Adhesive

or QuickSeam Tape.

Maximum Design

Pressure: -262.5 psf. (See General Limitation #9)



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Deck Type 3I: Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

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. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Base Insulation Layer Insulation Fasteners** Fastener (Table 3) Density/ft<sup>2</sup> **ISO 95+ GL** 

1:2 ft<sup>2</sup> Minimum 1.5" thick 2 or 3 with 5

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 Fastener** (Table 3) Density/ft<sup>2</sup> Tapered ISO 95+ GL Minimum ½" starting thickness, ½:12 taper 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.

Firestone RubberGard LS-FR, RubberGard LS-FR PT, RubberGard MAX, Membrane:

> RubberGard MAX PT, RubberGard MAX FR, RubberGard EcoWhite, RubberGrad EcoWhite PT or RubberGard Platinum EPDM membrane fully adhered to the cover board with BA-2004 T, Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding Adhesive 1168 at a rate of 60 sq. ft./gal. The roof cover side and end laps are sealed with SA-1065 Splice Adhesive or QuickSeam

Tape.

Maximum Design

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



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

**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. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²
RESISTA

Minimum 1.5" thick 2 or 3 with 5 1:1 ft<sup>2</sup>

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 Fastener (Table 3) Density/ft $^2$  RESISTA N/A N/A N/A

Note: Top layer of insulation shall be adhered with Firestone I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$  to  $\frac{3}{4}$  in. wide ribbons spaced 12 in. o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous  $\frac{3}{4}$ " – 1" wide ribbons spaced 12 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 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 BA 2004 T, Single-Ply LVOC Bonding Adhesive, Single-Ply LVOC Bonding Adhesive 1168 roller applied at a rate of 60 ft²/gal. or Water Based Bonding Adhesive-P roller applied at a rate of 120 ft²/gal. The minimum 3" side and end laps for RubberGard EcoWhite are sealed with EcoWhite QuickSeam Tape. The minimum 3" side and end laps for all RubberGard membranes are sealed with SA-

1065 Splice Adhesive or QuickSeam Tape.

Maximum Design

Pressure: -120 psf. (See General Limitation #7)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

**System Type B(3):** Base layer of insulation mechanically fastened, top layer adhered with approved

adhesive; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ $\mathrm{ft}^2$  RESISTA 2 or 3 with 5 1:4  $\mathrm{ft}^2$ 

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.

Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
RESISTA	,	·
Minimum 1.5" thick	N/A	N/A
<b>Top Insulation Layer</b>	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
Tapered RESISTA		•
Minimum ½" thick with ¼:12 taper	N/A	N/A

Note: Top & Middle layer of insulation shall be adhered with Firestone I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$  to  $\frac{3}{4}$  in. wide ribbons spaced 12 in. o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous  $\frac{3}{4}$ " -1" wide ribbons spaced 12 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 RubberGard LS-FR, RubberGard LS-FR PT, RubberGard MAX,

RubberGard MAX PT, RubberGard MAX FR, RubberGard EcoWhite, RubberGard EcoWhite PT or RubberGard Platinum EPDM membrane fully adhered to the insulation with BA 2004 T, Single-Ply LVOC Bonding Adhesive, Single-Ply LVOC Bonding Adhesive 1168 roller applied at a rate of 60 ft²/gal. or Water Based Bonding Adhesive-P roller applied at a rate of 120 ft²/gal. The minimum 3" side and end laps for RubberGard EcoWhite are sealed with EcoWhite QuickSeam Tape. The minimum 3" side and end laps for all

RubberGard membranes are sealed with SA-1065 Splice Adhesive or QuickSeam

Tape.

Maximum Design

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



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

**System Type B(4):** Base layer of insulation mechanically fastened, top layer adhered with approved

adhesive; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer	Insulation Fasteners	Fastener
·	(Table 3)	Density/ft <sup>2</sup>
ISO 95+ GL		_
Minimum 2" thick	2 or 3 with 5	1:1 ft <sup>2</sup>

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.

<b>Top Insulation Layer</b>	Insulation Fasteners	Fastener
<u>-</u>	(Table 3)	Density/ft <sup>2</sup>
ISO 95+ GL		
Minimum 1" thick	N/A	N/A

Note: Top layer of insulation shall be adhered with Firestone I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$  to  $\frac{3}{4}$  in. wide ribbons spaced 4" o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous  $\frac{3}{4}$ " – 1" wide ribbons spaced 4" 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 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 BA 2004 T, Single-Ply LVOC Bonding Adhesive, Single-Ply LVOC Bonding Adhesive 1168 roller applied at a rate of 60 ft²/gal. The minimum 3" side and end laps for RubberGard EcoWhite are sealed with EcoWhite QuickSeam Tape. The minimum 3" side and end laps for all RubberGard membranes are sealed with SA-1065 Splice Adhesive or QuickSeam Tape.

Maximum Design

Pressure: -127.5 psf. (See General Limitation #7)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

**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. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ $ft^2$  ISO 95+ GL 
Minimum 2" thick 2 or 3 with 5 1:1  $ft^2$ 

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	Fastener
•	(Table 3)	Density/ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board	I	-
Minimum 1/2" thick	N/A	N/A

Note: Top layer of insulation shall be adhered with Firestone I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$  to  $\frac{3}{4}$  in. wide ribbons spaced 4" o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous  $\frac{3}{4}$ " – 1" wide ribbons spaced 4" 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 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 BA 2004 T, Single-Ply LVOC Bonding Adhesive, Single-Ply LVOC Bonding Adhesive 1168 roller applied at a rate of 60 ft²/gal. The minimum 3" side and end laps for RubberGard EcoWhite are sealed with EcoWhite QuickSeam Tape. The minimum 3" side and end laps for all RubberGard membranes are sealed with SA-

1065 Splice Adhesive or QuickSeam Tape.

Maximum Design

Pressure: -112.5 psf. (See General Limitation #7)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

**System Type B(6):** Base layer of insulation mechanically fastened, top layer adhered with approved

adhesive; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ $ft^2$  ISO 95+ GL 
Minimum 2" thick 2 or 3 with 5 1:1  $ft^2$ 

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/ft²
ISOGARD HD

Minimum 1/2" thick N/A N/A

Note: Top layer of insulation shall be adhered with Firestone I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$  to  $\frac{3}{4}$  in. wide ribbons spaced 4" o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous  $\frac{3}{4}$ " – 1" wide ribbons spaced 4" 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 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 BA 2004 T, Single-Ply LVOC Bonding Adhesive, Single-Ply LVOC Bonding Adhesive 1168 roller applied at a rate of 60 ft²/gal. The minimum 3" side and end laps for RubberGard EcoWhite are sealed with EcoWhite QuickSeam Tape. The minimum 3" side and end laps for all RubberGard membranes are sealed with SA-1065 Splice Adhesive or QuickSeam Tape.

Maximum Design

Pressure: -135 psf. (See General Limitation #7)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

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

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
ISO 95+ GL		
Minimum 1.5" thick	2 or 3 with 5	1:2 ft <sup>2</sup>
Minimum 2" thick	2 or 3 with 5	1:4 ft <sup>2</sup>

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.

Fire Barrier: None.

Membrane: Fully adhere any Firestone EPDM membrane to the insulation with BA-2004 T,

Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding Adhesive

1168 at a rate of 60 sq. ft./gal.

Maximum Design

Pressure: -45 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

**System Type C(2):** Insulation attached; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

**ISO 95+ GL** 

Minimum 1.5" thick 2 or 3 with 5 1:1.6 ft<sup>2</sup>

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 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 BA 2004 T, Single-Ply LVOC Bonding Adhesive or Single-Ply LVOC Bonding Adhesive 1168 Adhesive applied at a rate of 60 ft²/gal. Side and end laps sealed

with SA-1065 Splice Adhesive or QuickSeam Tape.

Maximum Design

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



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

**System Type C(3):** Insulation attached; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²

ISO 95+ GL, RESISTA

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 Fastener (Table 3) Density/ft<sup>2</sup>

ISOGARD HD

Minimum 1/2" thick 2 or 3 with 5 1:1.33 ft<sup>2</sup>

Membrane: Firestone 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 BA

2004 T, Single-Ply LVOC Bonding Adhesive, Single-Ply LVOC Bonding

Adhesive 1168 roller applied at a rate of 60 ft²/gal. The minimum 3" side and end laps for RubberGard EcoWhite are sealed with EcoWhite QuickSeam Tape. The minimum 3" side and end laps for all RubberGard membranes are sealed with SA-

1065 Splice Adhesive or QuickSeam Tape.

Maximum Design

Pressure: -60 psf. (See General Limitation #7)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

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

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

**ISOGARD HD Composite** 

Minimum 1" thick 2 or 3 with 5  $1:1.33 \text{ ft}^2$ 

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 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 BA

2004 T, Single-Ply LVOC Bonding Adhesive, Single-Ply LVOC Bonding

Adhesive 1168 roller applied at a rate of 60 ft²/gal. The minimum 3" side and end laps for RubberGard EcoWhite are sealed with EcoWhite QuickSeam Tape. The minimum 3" side and end laps for all RubberGard membranes are sealed with SA-

1065 Splice Adhesive or QuickSeam Tape.

Maximum Design

Pressure: -60 psf. (See General Limitation #7)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

**System Type C(5):** Insulation attached; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

**ISOGARD HD Composite** 

Minimum 1.5" thick 2 or 3 with 5 1:1.33 ft<sup>2</sup>

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 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 BA 2004 T, Single-Ply LVOC Bonding Adhesive, Single-Ply LVOC Bonding

Adhesive 1168 roller applied at a rate of 60 ft<sup>2</sup>/gal. The minimum 3" side and end laps for RubberGard EcoWhite are sealed with EcoWhite QuickSeam Tape. The minimum 3" side and end laps for all RubberGard membranes are sealed with SA-

1065 Splice Adhesive or QuickSeam Tape.

Maximum Design

Pressure: -112.5 psf. (See General Limitation #7)



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

**System Type C(6):** Insulation attached; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

 $\begin{array}{ccc} Insulation \ Layer & Insulation \ Fasteners & Fastener \\ & (Table \ 3) & Density/ft^2 \end{array}$ 

**RESISTA** 

Minimum 2" thick 2 or 3 with 5 1:1 ft<sup>2</sup>

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 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 BA 2004 T, Single-Ply LVOC Bonding Adhesive, Single-Ply LVOC Bonding

Adhesive 1168 roller applied at a rate of 60 ft²/gal. The minimum 3" side and end laps for RubberGard EcoWhite are sealed with EcoWhite QuickSeam Tape. The minimum 3" side and end laps for all RubberGard membranes are sealed with SA-

1065 Splice Adhesive or QuickSeam Tape.

Maximum Design

Pressure: -150 psf. (See General Limitation #7)



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EPDM, Reinforced, Non-reinforced **Membrane Type:** 

Deck Type 3I: Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

System Type C(7): Insulation attached; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
RESISTA		
Minimum 2" thick	2 or 3 with 5	1:1.33 ft <sup>2</sup>
Minimum 1.5" thick	2 or 3 with 5	1:1.6 ft <sup>2</sup>

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 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 BA 2004 T, Single-Ply LVOC Bonding Adhesive, Single-Ply LVOC Bonding Adhesive 1168 roller applied at a rate of 60 ft<sup>2</sup>/gal. or Water Based Bonding Adhesive-P roller applied at a rate of 120 ft²/gal. The minimum 3" side and end laps for RubberGard EcoWhite are sealed with EcoWhite QuickSeam Tape. The minimum 3" side and end laps for all RubberGard membranes are sealed with SA-

Maximum Design

Pressure: -105 psf. with 2" RESISTA. (See General Limitation #7)

1065 Splice Adhesive or QuickSeam Tape.

-75 psf. with 1.5" RESISTA. (See General Limitation #7)



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Membrane Type: EPDM, Reinforced

Deck Type 3I: Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

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

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

ISO 95+ GL, RESISTA Minimum 1.5" thick

2 or 3 with 5  $1:4 \text{ ft}^2$ 

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.

Fire Barrier: None.

Membrane: Mechanically attach any 7 1/2' Reinforced Firestone RubberGard® EPDM

membrane with Firestone Heavy-Duty fasteners with minimum 1" embedment in V-Plates or 2" Metal Plates (or metal battens) 6" o.c. within the 7" wide side laps, or any nominal 10' Reinforced Firestone RubberGard® EPDM membrane with Firestone Heavy-Duty Fasteners with minimum 1" embedment 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 Heavy-Duty Fasteners with minimum 1" embedment along the batten strip or with V-Plates with Heavy-Duty Fasteners with minimum 1" embedment; fasteners shall be 6" o.c. within the QuickSeam R.M.A Strip spaced 7-1/2 ft. o.c. Any Reinforced Firestone RubberGard® EPDM membrane is adhered to each QuickSeam R.M.A. Strip.

Maximum Design

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



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

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

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer Insulation Fasteners Fastener
(Table 3) Density/ft²

ISO 95+ GL, RESISTA, ISOGARD HD

Minimum 1.5" thick N/A N/A

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.

Membrane: Mechanically attach Firestone RubberGard MAX® or RubberGard MAX FR®

EPDM membrane with Firestone Heavy-Duty fasteners with minimum 1" embedment in V-Plates or 2" Metal 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 Single-Ply QuickPrime Primer or Single-Ply LVOC Primer then applying 7" wide

QuickSeam Tape.

Or

Mechanically attach Firestone QuickSeam R.M.A. Strip along its 4" wide center section with Firestone Polymer Batten Strips or Metal Batten Bar and Firestone Heavy-Duty fasteners with minimum 1" embedment along the batten strip or with 2" Metal Plates or V-Plates with Firestone Heavy-Duty fasteners with minimum 1" embedment; fasteners shall be 6" o.c. within the QuickSeam R.M.A Strip spaced 7 ft. o.c. RubberGard MAX or RubberGard MAX FR EPDM membrane is adhered to each QuickSeam R.M.A. Strip.

Maximum Design

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



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**Deck Type 3I:** Concrete, Insulated

**Deck Description:** 2500 psi or greater structural concrete or concrete plank

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

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²
ISO 95+ GL, RESISTA, ISOGARD HD Composite

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.

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 fasteners with minimum 1" embedment and 1 in. wide Coiled Metal Batten Bar 6 in. o.c. within the 6 in. wide side laps in rows spaced 7 ft. o.c. Side laps primed with QuickPrime Plus, Single-Ply QuickPrime Primer or Single-Ply LVOC Primer applied at 200-250 ft²/gal. and adhered with

N/A

N/A

Firestone QuickSeam Tape.

Maximum Design

Minimum 1.5" thick

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



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#### **CONCRETE DECK SYSTEM LIMITATIONS:**

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.

#### **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 61G20-3 of the Florida Administrative Code.

#### END OF THIS ACCEPTANCE

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