



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

**NOTICE OF ACCEPTANCE (NOA)**

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208  
Miami, Florida 33175-2474  
T (786)315-2590 F (786) 315-2599

[www.miamidade.gov/economy](http://www.miamidade.gov/economy)

**Firestone Building Products Company, LLC**  
250 W. 96<sup>th</sup> 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 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 Modified Bitumen Roof Systems over Gypsum 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. 15-0224.08 and consists of pages 1 through 32.  
The submitted documentation was reviewed by Alex Tigera.



NOA No.: 16-0202.08  
Expiration Date: 03/08/21  
Approval Date: 03/31/16  
Page 1 of 32

## ROOFING SYSTEM APPROVAL

<b>Category:</b>	Roofing
<b>Sub-Category:</b>	Modified Bitumen
<b>Material:</b>	APP/SBS
<b>Deck Type:</b>	Poured Gypsum
<b>Maximum Design Pressure:</b>	-112.5 psf

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

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
APP 80 Glass Base	39.4" x 65'4"	ASTM D6509	Fiberglass reinforced modified bitumen, smooth surfaced base sheet.
SBS Glass Torch Base	39.4" x 33'10"	ASTM D6163	Modified bitumen base sheet with a burn-off film and reinforced with non-woven fiberglass mat.
SBS Base	39.4" x 50'	ASTM D6163	Fiberglass reinforced SBS base sheet. Applied in hot asphalt or mechanically attached.
SBS Premium Base	39.6" x 50'	ASTM D6163	Fiberglass reinforced SBS base sheet. Applied in hot asphalt or Multi-Purpose MB Cold Adhesive.
SBS PolyBase	39.6" x 50'	ASTM D6164	A smooth surfaced, non-woven polyester reinforced, modified bitumen base sheet.
SBS Poly Torch Base	45" x 39"	ASTM D6164	Fiberglass reinforced modified bitumen membrane, SBS rubber modified asphalt reinforced with a non-woven polyester mat.
Ply IV	33" x 180"	ASTM D2178	Fiberglass reinforced, asphalt impregnated, roofing ply. Applied in hot asphalt.
Ply VI	33" x 180"	ASTM D2178	Fiberglass reinforced, asphalt impregnated, roofing ply. Applied in hot asphalt.
MB Base	36" x 108'	ASTM D4601	Fiberglass reinforced base sheet, asphalt coated on both sides. Applied in hot asphalt or mechanically attached.
SBS Smooth	39.4" x 33'10"	ASTM D6164	Smooth surfaced, modified bitumen membrane reinforced with non-woven polyester mat. Applied in hot asphalt.
APP 160-P	39.4" x 32'9"	ASTM D6222	Polyester reinforced modified bitumen, smooth surfaced membrane. Torch applied for use as a base or ply sheet only.
APP 170 Cool	39.6" x 33'6"	ASTM D6222	Polyester reinforced modified bitumen, smooth surfaced membrane.
APP 180	39.4" x 32'10"	ASTM D6222	Polyester reinforced modified bitumen, granule surfaced membrane. Torch applied.



APP 180-P	39.4" x 32'9"	ASTM D6222	Polyester reinforced modified bitumen, granule surfaced membrane. Torch applied.
APP 180 UltraWhite	39.4" x 32'10"	ASTM D6222	Polyester reinforced modified bitumen, UltraWhite granule surfaced membrane. Torch applied.
APP 180 FR	39.4" x 32'10"	ASTM D6222	Polyester reinforced, fire retardant modified bitumen, granule surfaced membrane. Torch applied.
APP 180 FR UltraWhite	39.4" x 32'10"	ASTM D6222	Polyester reinforced, fire retardant modified bitumen, UltraWhite granule surfaced membrane. Torch applied.
APP 180 Cool	39.4" x 32'10"	ASTM D6222	Polyester reinforced modified bitumen, granule surfaced membrane.
APP 180 FR Cool	39.4" x 32'10"	ASTM D6222	Polyester reinforced, fire retardant modified bitumen, granule surfaced membrane. Torch applied.
SBS Glass	39.4" x 33'10"	ASTM D6163	Fiberglass reinforced, granule surfaced, modified bitumen membrane. Applied in hot asphalt.
SBS Glass FR	39.4" x 33'10"	ASTM D6163	Fiberglass reinforced, fire rated, granule surfaced, modified bitumen membrane. Applied in hot asphalt.
SBS Glass FR UltraWhite	39.4" x 33'10"	ASTM D6163	UltraWhite fiberglass reinforced, granule surfaced, modified bitumen membrane. Applied in hot asphalt.
SBS Torch	48" x 39"	ASTM D6164	Granule surfaced, SBS cap reinforced with a non-woven polyester mat, with burn off film and fiberglass enhanced.
SBS Torch UltraWhite	48" x 39"	ASTM D6164	UltraWhite granule surfaced, SBS cap reinforced with a non-woven polyester mat, with burn off film and fiberglass enhanced.
SBS FR Torch	48" x 39"	ASTM D6164	Granule surfaced, fire rated, SBS cap reinforced with a non-woven polyester mat, with burn off film and fiberglass enhanced.
SBS FR Torch UltraWhite	48" x 39"	ASTM D6164	UltraWhite granule surfaced, fire rated, SBS cap reinforced with a non-woven polyester mat, with burn off film and fiberglass enhanced.
SBS Glass FR Torch	39.4" x 33'10"	ASTM D6163	Fiberglass reinforced, fire rated, granule surfaced, modified bitumen membrane. with burn off film and fiberglass enhanced.
SBS Glass FR Torch UltraWhite	39.4" x 33'10"	ASTM D6163	UltraWhite fiberglass reinforced, fire rated, granule surfaced, modified bitumen membrane. with burn off film and fiberglass enhanced.



SBS Cap	39.4" x 33'10"	ASTM D6164	Granule surfaced, modified bitumen membrane reinforced with non-woven polyester mat.
SBS Cap UltraWhite	39.4" x 33'10"	ASTM D6164	UltraWhite granule surfaced, modified bitumen membrane reinforced with non-woven polyester mat.
SBS FR Cap	39.4" x 33'10"	ASTM D6164	Granule surfaced, modified bitumen membrane reinforced with non-woven polyester mat.
SBS FR Cap UltraWhite	39.4" x 33'10"	ASTM D6164	UltraWhite granule surfaced, modified bitumen membrane reinforced with non-woven polyester mat.
SBS Premium FR	39.4" x 33'10"	ASTM D6164	Granule surfaced, fire rated, modified bitumen membrane reinforced with non-woven polyester mat.
SBS Premium FR UltraWhite	39.4" x 33'10"	ASTM D6164	UltraWhite granule surfaced, fire rated, modified bitumen membrane reinforced with non-woven polyester mat.
SBS Premium	39.4" x 33'10"	ASTM D6164	Granule surfaced, modified bitumen membrane reinforced with polyester mat. Applied in hot asphalt.
SBS Premium Torch	39.4" x 33'10"	ASTM D6164	Granule surfaced, modified bitumen membrane with a burn-off film and reinforced with non-woven polyester mat.
SBS Premium Torch UltraWhite	39.4" x 33'10"	ASTM D6164	UltraWhite granule surfaced, modified bitumen membrane with a burn-off film and reinforced with non-woven polyester mat.
SBS Premium FR Torch	39.4" x 33'10"	ASTM D6164	Granule surfaced, fire rated, modified bitumen membrane with a burn-off film and reinforced with non-woven polyester mat.
SBS Premium FR Torch UltraWhite	39.4" x 33'10"	ASTM D6164	UltraWhite granule surfaced, fire rated, modified bitumen membrane with a burn-off film and reinforced with non-woven polyester mat.
I.S.O. Twin Pack Insulation Adhesive	Dual 750 ml cartridges	Proprietary	A two-component polyurethane insulation adhesive.
I.S.O. FIX II	30 lb.	Proprietary	A single component polyurethane insulation adhesive.
I.S.O. Stick	5 gal.	Proprietary	A two-component polyurethane insulation adhesive.
Multi-Purpose MB Cold Adhesive	55 gal.	Proprietary	An asphalt based adhesive.
LiquiGard Membrane Adhesive	6 gal.	Proprietary	A two-component, solvent-free, asphalt-based urethane adhesive.



**APPROVED INSULATIONS:**

**TABLE 2**

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
ACFoam-II	Isocyanurate Insulation	Atlas Roofing Corp.
ISO 95+ GL, RESISTA	Isocyanurate Insulation	Firestone Building Products Company, LLC
DensDeck, DensDeck Prime	Silicon treated gypsum	Georgia-Pacific Gypsum LLC
ENRGY 3, ENRGY 3 25 PSI	Isocyanurate Insulation	Johns Manville Corp.
Perlite Insulation Board	Perlite Insulation	Generic
High Density Wood Fiberboard	High Density Wood Fiber insulation board.	Generic
Ultrai-Max-3	Isocyanurate Insulation	Rmax Operating, LLC
SECUROCK Gypsum-Fiber Roof Board	Gypsum Coverboard	United States Gypsum Corporation

**APPROVED FASTENERS:**

**TABLE 3**

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
1.	Firestone Polymer	Glass reinforced nylon fastener for Gypsum or CWF decks.	11/16"	Firestone Building Products Company, LLC
2.	Polymer Fastener Insulation Plate	Galvalume plate for use with the Polymer Fastener.	3" square	Firestone Building Products Company, LLC
3.	Trufast Twin Loc-Nail Assembled Fastener	Base sheet fastener with integrated Plate.	2.7" dia. Plate	Altenloh, Brinck & Co. U.S., Inc.
4.	Two Piece Impact Nail	Base sheet fastener with integrated Plate.	2.7" dia. Plate	Firestone Building Products Company, LLC



**EVIDENCE SUBMITTED:**

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Factory Mutual Research Corp.	0Z5A3.AM	FM 4470	03/08/95
	1D5A8.AM	FM 4470	09/09/98
	3003597	FM 4470	07/14/99
	3004786	FM 4470	05/16/00
	3005030	FM 4470	08/08/00
	3014031	FM 4470	07/22/02
	3022502	FM 4470	01/29/07
	3007328	FM 4470	07/12/02
	3014692	FM 4470	08/05/03
	3033218	FM 4470	04/29/10
	3041534	FM 4470	03/09/11
	3038191	FM 4470	08/04/11
	Underwriters Laboratories	R9516	UL 790
Trinity   ERD.	4810.01.96-1	TAS 114(C) & TAS 114(D)	01/31/96
	4810.10.96-1-R1	TAS 114(J)	03/09/09
	4674.11.01-1	TAS 114(J)	03/21/06
	P6860.06.07	FM 4470 / TAS 114	06/08/07
	F8800.01.08-R1	TAS 114	04/21/08
	F11330.10.08	TAS 114	10/20/08
	F10500.10.08-1	ASTM D6163	08/26/08
	F31960.05.10-1	ASTM D4977	05/19/10
	F31960.05.10-2	ASTM D4977	05/19/10
	F31960.08.10-1	ASTM D4977	08/25/10
	F31960.08.10-2	ASTM D4977	08/25/10
	F354005.11	ASTM Physical Properties	05/31/11
	F41070.08.12	ASTM D6222	08/24/12
	U41790.05.12-2-R2	ASTM D6222	02/11/13
	U41790.05.12-1-R1	ASTM D6222	01/21/13
Atlantic & Caribbean Roof Consulting, LLC.	03-002	TAS 114	03/06/03
PRI Construction Materials Technologies LLC	FBP-018-02-01	ASTM D 6163	09/07/04
	FBP-011-02-01	ASTM D 6164	09/02/04
	FBP-008-02-01	ASTM D 6222	09/10/04
	FBP-009-02-01	ASTM D 6222	08/31/04
	FBP-010-02-01	ASTM D 6164	09/04/04
	FBP-014-02-01	ASTM D 6164	09/02/04
	FBP-015-02-01	ASTM D 6509	09/02/04
	FBP-016-02-01	ASTM D 6509	09/02/04
	FBP-017-02-01	ASTM D 6163	09/13/04
	FBP-019-02-01	ASTM D 4601	09/14/04
	FBP-023-02-01	ASTM D 6223	09/01/04
	FBP-007-02-01	ASTM D 6222	09/14/04



**EVIDENCE SUBMITTED:**

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
PRI Construction Materials Technologies LLC	FBP-020-02-01	ASTM D 2178	09/14/04
	FBP-038-02-03	ASTM D 6164	01/12/11
	FBP-038-02-04	ASTM D 6164	01/12/11
	FBP-038-02-02	ASTM D 6164	01/12/11
	FBP-038-02-01	ASTM D 6164	12/27/10
	FBP-043-02-03	ASTM D 6164	07/26/11
	FBP-043-02-02	ASTM D 6164	08/02/11
	FBP-043-02-04	ASTM D 6164	07/26/11
	FBP-043-02-01	ASTM D 6164	08/02/11
	FBP-042-02-01	ASTM D 6164	07/26/11
	FBP-042-02-02	ASTM D 6164	07/27/11
	FBP-058-02-01	ASTM D 4601	12/12/08
	FBP-057-02-01	ASTM D 2178	12/12/08
	FBP-056-02-01	ASTM D 2178	12/12/08
	FBP-059-02-01	ASTM D 1876	07/20/12
	FBP-087-02-01	ASTM D 4798	03/22/13
	FBP-088-02-01	ASTM D 4798	03/22/13



**APPROVED ASSEMBLIES**

**Membrane Type:** SBS  
**Deck Type 6I:** Poured Gypsum, Insulated  
**Deck Description:** Poured Gypsum Concrete.  
**System Type A(1):** All layers of insulation adhered with approved asphalt.

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
ISO 95+ GL or RESISTA Minimum 1.5” thick	N/A	N/A
<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
ISO 95+ GL or RESISTA Minimum 1.5” thick or Tapered	N/A	N/A
DensDeck Prime Minimum ¼” thick	N/A	N/A

**Note: Deck shall be primed with Millennium Weather-Tite Universal Primer and allowed to dry prior to application of insulation. Insulation shall be adhered to deck with I.S.O. Twin Pack Insulation Adhesive or Millennium One Step Foamable Adhesive applied in ½ - ¾” wide ribbons spaced 12 in. o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

**Base Sheet:** One ply of Firestone SBS Glass Torch Base or SBS Poly Torch Base, torch applied.

**Ply Sheet:** (Optional) One or more plies of Firestone SBS Glass Torch Base or SBS PolyTorch Base torch adhered.

**Membrane:** One ply of Firestone SBS FR Torch, SBS FR Torch UltraWhite, SBS Premium FR Torch or SBS Premium FR Torch UltraWhite cap sheet torch adhered to the base sheet with the 3” sidelaps heat fused with a torch.

**Surfacing:** (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Roof gravel at 400 lb/sq in a flood coat of approved asphalt
2. Multi-Purpose MB Cold Adhesive at 2.5 gal/sq

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





**Membrane Type:** APP  
**Deck Type 6I:** Poured Gypsum, Insulated  
**Deck Description:** Poured Gypsum Concrete.  
**System Type A(2):** Anchor Sheet Mechanically Fastened; All Layers of Insulation Adhered with Approved Asphalt.

**All General and System Limitations apply.**

One or more layers of the following insulations:

**Anchor Sheet:** One ply of Firestone MB Base or MB Base M fastened to deck as described below:  
**Fastening:** Firestone Two Piece Impact Nail or Trufast Twin Loc-Nail Assembled Fastener at a 4” side lap 9” o.c. and in two rows staggered in the center of the sheet 12” o.c.

One or more layers of any of the following insulations:

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
ACFoam-II Minimum 1.3”	N/A	N/A
ISO 95+ GL or RESISTA Minimum 1.4”	N/A	N/A
Approved Perlite Minimum. ¾”	N/A	N/A
DensDeck, DensDeck Prime Minimum. ¼”	N/A	N/A
Approved High Density Wood Fiberboard Minimum ½”	N/A	N/A

**Note:** All insulation shall be adhered to the anchor sheet in full mopping of approved hot 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 may be used as a top layer placed with the polyisocyanurate side facing down.

**Base Sheet:** One ply of MB Base, SBS Base, Ply IV , Ply IV (4) M, Ply VI or Ply VI (6) M Ply Sheet adhered to the insulation in a full mopping of an approved asphalt applied within the EVT range at a rate of 20-40 lbs./sq. (See General Limitation #4.)

**Ply Sheet:** (Optional) One or more plies of APP 160-P heat welded.  
 Or



One or more plies of Firestone MB Base, Ply IV , Ply IV (4) M, Ply VI or Ply VI (6) M Ply Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one or more plies of Firestone SBS Glass Torch Base or SBS PolyTorch Base torch adhered.

**Membrane:** Firestone APP 180, APP 180-P, APP 180 UltraWhite, APP 180 FR, APP 180 FR UltraWhite heat welded.

**Surfacing:** (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag at 400 lbs. and 300 lbs. respectively, set in a flood coat of Type III or IV asphalt at 60 lbs./sq.
2. Karnak No. 97, No. 97 AF or No. 169 at an application rate of 1-1/2 to 3 gal./sq.

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



**Membrane Type:** SBS  
**Deck Type 6I:** Poured Gypsum, Insulated  
**Deck Description:** Poured Gypsum Concrete.  
**System Type A(3):** Anchor Sheet Mechanically Fastened; All Layers of Insulation Adhered with Approved Asphalt.

**All General and System Limitations apply.**

One or more layers of the following insulations:

**Anchor Sheet:** One ply of Firestone MB Base or MB Base M fastened to deck as described below:

**Fastening:** Firestone Two Piece Impact Nail or Trufast Twin Loc-Nail Assembled Fastener at a 4” side lap 9” o.c. and in two rows staggered in the center of the sheet 12” o.c.

One or more layers of any of the following insulations:

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
<b>ACFoam-II Minimum 1.3”</b>	N/A	N/A
<b>ISO 95+ GL or RESISTA Minimum 1.4”</b>	N/A	N/A
<b>Approved Perlite Minimum. ¾”</b>	N/A	N/A
<b>DensDeck, DensDeck Prime Minimum. ¼”</b>	N/A	N/A
<b>Approved High Density Wood Fiberboard Minimum ½”</b>	N/A	N/A

**Note:** All insulation shall be adhered to the anchor sheet in full mopping of approved hot 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 may be used as a top layer placed with the polyisocyanurate side facing down.

**Base Sheet:** One ply of MB Base, SBS Base, Ply IV , Ply IV (4) M, Ply VI or Ply VI (6) M Ply Sheet adhered to the insulation in a full mopping of an approved asphalt applied within the EVT range at a rate of 20-40 lbs./sq. (See General Limitation #4.)



**Ply Sheet:** (Optional) One or more plies of SBS Base, SBS Smooth, MB Base, Ply IV , Ply IV (4) M, Ply VI or Ply VI (6) M Ply Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one or more plies of Firestone SBS Glass Torch Base or SBS PolyTorch Base torch adhered.

**Membrane:** Firestone SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Premium, SBS Premium FR, SBS Premium FR UltraWhite adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs. /sq.

**Surfacing:** (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag at 400 lbs. and 300 lbs. respectively, set in a flood coat of Type III or IV asphalt at 60 lbs./sq.
2. Karnak No. 97, No. 97 AF or No. 169 at an application rate of 1-1/2 to 3 gal./sq.

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



**Membrane Type:** APP/SBS  
**Deck Type 6I:** Poured Gypsum, Insulated  
**Deck Description:** Poured Gypsum Concrete.  
**System Type A(4):** Anchor Sheet Mechanically Fastened; All Layers of Insulation Adhered with Approved Asphalt.

**All General and System Limitations apply.**

One or more layers of the following insulations:

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

**Note: Insulation shall be adhered to the deck with Tite-Set Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in 3-3½" ribbons spaced 12" o.c. or OlyBond 500 Adhesive or I.S.O. Stick in ¾" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

**System 1:** One or more plies of Firestone SBS BaseSBS Base, SBS Smooth, SBS PolyBase or SBS Premium  
**Base Sheet:** Base sheet fully adhered to the insulation with Multi-Purpose MB Cold Adhesive applied at 1½ - 2 gal/sq.

**Ply Sheet:** (Optional) One or more plies of Firestone SBS Glass Torch Base or SBS PolyTorch Base torch adhered.

**Membrane:** One ply of Firestone SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Smooth, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with Multi-Purpose MB Cold Adhesive applied at 1½ - 2 gal/sq.

Or

One ply of Firestone SBS Torch, SBS Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS Premium FR Torch or SBS Premium FR Torch UltraWhite torch adhered.

Or

One ply of Firestone SBS Smooth, SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR, SBS Premium FR UltraWhite fully adhered with LiquiGard Membrane Adhesive squeegee applied at a rate of 1.5 – 2.0 gal/square. The minimum 3 in. wide side laps are sealed with LiquiGard Membrane Adhesive squeegee applied at a rate of 1.5 – 2.0 gal/square.

Or



One ply of Firestone SBS Smooth, SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR, SBS Premium FR UltraWhite fully adhered to the base sheet with hot asphalt adhesive applied within the EVT range and at a rate of 20-40 lbs./sq.

**System 2:  
Base Sheet:**

One or more plies of Firestone APP 80 Glass Base, MB Base M, SBS BaseSBS Base, SBS PolyBase or SBS Premium Base sheet fully adhered to the insulation with Multi-Purpose MB Cold Adhesive applied at 1½ - 2 gal/sq.

**Ply Sheet:**

(Optional) One or more plies of Firestone SBS Glass Torch Base or SBS PolyTorch Base torch adhered.

**Membrane:**

One ply of Firestone APP 170 Cool, APP 180 Cool or APP 180 FR Cool fully adhered to the base sheet with Multi-Purpose MB Cold Adhesive applied at 1½ - 2 gal/sq.

**Surfacing:**

(Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag at 400 lbs. and 300 lbs. respectively, set in a flood coat of Type III or IV asphalt at 60 lbs./sq.
2. Karnak No. 97, No. 97 AF or No. 169 at an application rate of 1-1/2 to 3 gal./sq.

**Maximum Design**

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



**Membrane Type:** APP/SBS  
**Deck Type 6I:** Poured Gypsum, Insulated  
**Deck Description:** Poured Gypsum Concrete.  
**System Type A(5):** Anchor Sheet Mechanically Fastened; All Layers of Insulation Adhered with Approved Asphalt.

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
ISO 95+ GL Minimum 1.5” thick	N/A	N/A
RESISTA (Not for use with TiteSet / CR-20 Adhesive) Minimum 1.5” thick	N/A	N/A

**Note: Insulation shall be adhered to the deck with Tite-Set Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in 3-3½” ribbons spaced 12” o.c. or OlyBond 500 Adhesive or I.S.O. Stick in ¾” ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

**Base Sheet:** One or more plies of Firestone APP 80 Glass Base, Ply IV , Ply IV (4) M, Ply VI or Ply VI (6) M Felt, MB Base M, SBS BaseSBS Base, SBS PolyBase or SBS Premium Base sheet fully adhered to the insulation with Multi-Purpose MB Cold Adhesive applied at 1½ - 2 gal/sq.

**Ply Sheet:** (Optional) One or more plies of Firestone SBS Glass Torch Base or SBS PolyTorch Base torch adhered.

**Membrane:** (Not with APP 80 Glass ) One ply of Firestone SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Smooth, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with Multi-Purpose MB Cold Adhesive applied at 1½ - 2 gal/sq.  
Or

(Not with APP 80 Glass Base,) One ply of Firestone SBS Torch, SBS Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS Premium FR Torch or SBS Premium FR Torch UltraWhite torch adhered to the base sheet.

Or

(Only with SBS BaseSBS Base, SBS PolyBase or SBS Premium Base) One ply of Firestone SBS Smooth, SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR, SBS Premium FR UltraWhite fully adhered with LiquiGard Membrane Adhesive squeegee applied at a rate of 1.5 – 2.0 gal/square. The minimum 3 in. wide side laps are sealed with LiquiGard Membrane Adhesive squeegee applied at a rate of 1.5 – 2.0 gal/square.

Or



(Only with SBS BaseSBS Base, SBS PolyBase or SBS Premium Base) One ply of Firestone SBS Smooth, SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR, SBS Premium FR UltraWhite fully adhered to the base sheet with hot asphalt adhesive applied within the EVT range and at a rate of 20-40 lbs./sq

Or

(Not with Ply IV , Ply IV (4) M, Ply VI or Ply VI (6) M Felt) One ply of Firestone APP 170 Cool, APP 180 Cool or APP 180 FR Cool fully adhered to the base sheet with Multi-Purpose MB Cold Adhesive applied at 1½ - 2 gal/sq.

**Surfacing:**

(Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag at 400 lbs. and 300 lbs. respectively, set in a flood coat of Type III or IV asphalt at 60 lbs./sq.
2. Karnak No. 97, No. 97 AF or No. 169 at an application rate of 1-1/2 to 3 gal./sq.

**Maximum Design**

**Pressure:** -67.5 psf (See General Limitation #9.)





**Membrane Type:** APP  
**Deck Type 6I:** Poured Gypsum, Insulated  
**Deck Description:** Poured Gypsum Concrete.  
**System Type A(6):** One or more layers of insulation adhered with approved adhesive.

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
ISO 95+ GL Minimum 1.5” thick	N/A	N/A
RESISTA (Not for use with TiteSet / CR-20 Adhesive) Minimum 1.5” thick	N/A	N/A

**Note: Base insulation layer shall be adhered to the deck with Tite-Set Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in 3-3½” ribbons spaced 12” o.c. or OlyBond 500 Adhesive or I.S.O. Stick in ¾” ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
Approved High Density Wood Fiberboard Minimum ½” thick	N/A	N/A

**Note: Top insulation layer shall be adhered to the base layer 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.**

**Base Sheet:** One or more plies of Firestone Ply IV , Ply VI (4), Ply IV (6) M, or Ply VI M felt fully adhered in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>.

**Ply Sheet:** (Optional) One or more plies of Firestone SBS Glass Torch Base or SBS PolyTorch Base torch adhered.

**Membrane:** One ply of Firestone APP 180, APP 180-P, APP 180 UltraWhite, APP 180 FR, APP 180 FR UltraWhite torch applied.

**Surfacing:** (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag at 400 lbs. and 300 lbs. respectively, set in a flood coat of Type III or IV asphalt at 60 lbs./sq.
2. Karnak No. 97, No. 97 AF or No. 169 at an application rate of 1-1/2 to 3 gal./sq.

**Maximum Design Pressure:** -97.5 psf (See General Limitation #9.)



**Membrane Type:** APP/SBS  
**Deck Type 6I:** Poured Gypsum, Insulated  
**Deck Description:** Poured Gypsum Concrete.  
**System Type A(7):** One or more layers of insulation adhered with approved adhesive.

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
ISO 95+ GL or RESISTA Minimum 1.5" thick	N/A	N/A

**Note: All insulation shall be adhered to the deck with OlyBond 500 Adhesive or I.S.O. Stick in ¾" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

**Base Sheet:** One or more plies of Firestone Ply IV , Ply VI , Ply IV (4) M or Ply VI (6) M felt fully adhered in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>.

**Ply Sheet:** (Optional) One or more plies of Firestone SBS Glass Torch Base or SBS PolyTorch Base torch adhered.

**Membrane:** One ply of Firestone SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180-P, APP 180 UltraWhite, APP 180 FR, APP 180 FR UltraWhite, torch applied to the base sheet.  
 Or  
 One ply of Firestone SBS Cap, SBS Cap UltraWhite, SBS Premium adhered in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>

**Surfacing:** (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag at 400 lbs. and 300 lbs. respectively, set in a flood coat of Type III or IV asphalt at 60 lbs./sq.
2. Karnak No. 97, No. 97 AF or No. 169 at an application rate of 1-1/2 to 3 gal./sq.

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



**Membrane Type:** APP/SBS  
**Deck Type 6I:** Poured Gypsum, Insulated  
**Deck Description:** Poured Gypsum Concrete.  
**System Type A(8):** One or more layers of insulation adhered with approved adhesive.

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
ISO 95+ GL Minimum 1.5” thick	N/A	N/A

**Note: All insulation shall be adhered to the deck with Tite-Set Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in 3-3½” ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

**Base Sheet:** One or more plies of Firestone Ply IV , Ply VI , Ply IV (4) M, or Ply VI (6)M felt fully adhered in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>..

**Ply Sheet:** (Optional) One or more plies of Firestone SBS Glass Torch Base or SBS PolyTorch Base torch adhered.

**Membrane:** One ply of Firestone SBS Premium FR Torch, SBS Premium FR Torch UltraWhite, APP 180, APP 180-P, APP 180 UltraWhite, APP 180 FR, APP 180 FR UltraWhite, torch applied to the base sheet.  
 Or  
 One ply of Firestone SBS Cap, SBS Cap UltraWhite, SBS Premium adhered in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>

**Surfacing:** (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag at 400 lbs. and 300 lbs. respectively, set in a flood coat of Type III or IV asphalt at 60 lbs./sq.
2. Karnak No. 97, No. 97 AF or No. 169 at an application rate of 1-1/2 to 3 gal./sq.

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



**Membrane Type:** SBS  
**Deck Type 6I:** Poured Gypsum, Insulated  
**Deck Description:** Poured Gypsum Concrete.  
**System Type A(9):** One or more layers of insulation adhered with approved adhesive.

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
ISO 95+ GL or RESISTA Minimum 1.5" thick	N/A	N/A

**Note:** Base insulation layer shall be adhered to the deck with OlyBond 500 Adhesive or I.S.O. Stick in ¾" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	N/A	N/A

**Note:** Top insulation layer shall be adhered in full mopping of approved asphalt within the EVT range and at a rate of 25 lbs/100 ft<sup>2</sup> or with OlyBond at a rate of 1 gal/sq. or Insta-Stik, OlyBond 500, I.S.O. Stick, I.S.O. FIX II, I.S.O. Twin Pack Insulation Adhesive or Tite-Set Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 in ribbons 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Primer:** (Optional) SECUROCK Gypsum-Fiber Roof Board may be primed with ASTM D41 asphalt primer and allowed to dry prior to application of base sheet.

**Base Sheet:** One or more plies of Firestone SBS Poly Torch Base or SBS Glass Torch Base torch applied.

**Ply Sheet:** (Optional) One or more plies of Firestone SBS Glass Torch Base or SBS PolyTorch Base torch adhered.

**Membrane:** One ply of Firestone SBS Premium FR Torch or SBS Premium FR Torch UltraWhite torch applied.

**Surfacing:** (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag at 400 lbs. and 300 lbs. respectively, set in a flood coat of Type III or IV asphalt at 60 lbs./sq.
2. Karnak No. 97, No. 97 AF or No. 169 at an application rate of 1-1/2 to 3 gal./sq.

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



**Membrane Type:** SBS  
**Deck Type 6I:** Poured Gypsum, Insulated  
**Deck Description:** Poured Gypsum Concrete.  
**System Type A(10):** One or more layers of insulation adhered with approved adhesive.

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
ISO 95+ GL Minimum 1.5” thick	N/A	N/A

**Note: All insulation shall be adhered to the deck with Tite-Set Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in 3-3½” ribbons spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
SECUROCK Gypsum-Fiber Roof Board Minimum ¼” thick	N/A	N/A

**Note: Top insulation layer shall be adhered in full mopping of approved asphalt within the EVT range and at a rate of 25 lbs/100 ft<sup>2</sup> or with OlyBond at a rate of 1 gal/sq. or Insta-Stik, OlyBond 500, I.S.O. FIX II, I.S.O. Twin Pack Insulation Adhesive or Tite-Set Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 in ribbons 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

**Primer:** (Optional) SECUROCK Gypsum-Fiber Roof Board may be primed with ASTM D41 asphalt primer and allowed to dry prior to application of base sheet.

**Base Sheet:** One or more plies of Firestone SBS Poly Torch Base or SBS Glass Torch Base torch applied.

**Ply Sheet:** (Optional) One or more plies of Firestone SBS Glass Torch Base or SBS PolyTorch Base torch adhered.

**Membrane:** One ply of Firestone SBS Premium FR Torch or SBS Premium FR Torch UltraWhite torch applied.

**Surfacing:** (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag at 400 lbs. and 300 lbs. respectively, set in a flood coat of Type III or IV asphalt at 60 lbs./sq.
2. Karnak No. 97, No. 97 AF or No. 169 at an application rate of 1-1/2 to 3 gal./sq.

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



**Membrane Type:** APP  
**Deck Type 6I:** Poured Gypsum, Insulated  
**Deck Description:** Poured Gypsum Concrete.  
**System Type B(1):** Base layers of insulation mechanically fastened, top layer adhered with approved asphalt.

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
Approved Perlite Minimum 3/4" thick	1	1:2 ft <sup>2</sup>
ACFoam-II Minimum 1.3" thick	1	1:2.67 ft <sup>2</sup>
ENRGY 3, ENRGY 3 25 PSI Minimum 1.25" thick	1	1:3 ft <sup>2</sup>

**Note:** All layers of insulation shall be 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. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
Approved Perlite Minimum 3/4" thick	N/A	N/A

**Note:** Apply top layer of insulation in a full mopping of any approved mopping hot 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 may be used as a top layer placed with the polyisocyanurate side facing down.

**Base Sheet:** One ply of Firestone MB Base adhered to the insulation with hot asphalt adhesive applied within the EVT range and at a rate of 20-40 lbs./sq.. If base sheet is applied directly to polyisocyanurate insulation, only a spot or strip mopped application as detailed in this approval is approved; see General Limitation #4.

**Ply Sheet:** (Optional) One or more plies of Firestone MB Base, Ply IV , Ply IV (4) M, Ply VI or Ply VI (6) M ply sheet or other listed base sheet applied in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one or more plies of Firestone SBS Glass Torch Base or SBS PolyTorch Base torch adhered.



**Membrane:** One ply of Firestone APP 180, APP 180-P, APP 180 UltraWhite, APP 180 FR, APP 180 FR UltraWhite, applied by torch parallel to the base ply, with the overlaps staggered 12".

**Surfacing:** (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag at 400 lbs. and 300 lbs. respectively, set in a flood coat of Type III or IV asphalt at 60 lbs./sq.
2. Karnak No. 97, No. 97 AF or No. 169 at an application rate of 1-1/2 to 3 gal./sq.

**Maximum Design**

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



**Membrane Type:** SBS  
**Deck Type 6I:** Poured Gypsum, Insulated  
**Deck Description:** Poured Gypsum Concrete.  
**System Type B(2):** Base layers of insulation mechanically fastened, top layer adhered with approved asphalt.

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
Approved Perlite Minimum 3/4" thick	1	1:2 ft <sup>2</sup>
ACFoam-II Minimum 1.3" thick	1	1:2.67 ft <sup>2</sup>
ENRGY 3, ENRGY 3 25 PSI Minimum 1.25" thick	1	1:3 ft <sup>2</sup>

**Note:** All layers of insulation shall be 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. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
Approved Perlite Minimum 3/4" thick	N/A	N/A

**Note:** Apply top layer of insulation in a full mopping of any approved mopping hot 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 may be used as a top layer placed with the polyisocyanurate side facing down.

**Base Sheet:** One ply of Firestone MB Base, SBS Base, , Firestone Ply IV , Ply IV (4) M, Ply VI or Ply VI (6) M ply sheet adhered to the insulation in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Ply Sheet:** (Optional) One or more plies of SBS Smooth, SBS Base, or Firestone Ply IV , Ply IV (4) M, Ply VI or Ply VI (6) M ply sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one or more plies of Firestone SBS Glass Torch Base or SBS PolyTorch Base torch adhered.





**Membrane:**

One ply of Firestone SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Smooth, SBS Premium, SBS Premium FR, SBS Premium FR UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Or

(Not with MB Base) One ply of Firestone SBS Smooth, SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR, SBS Premium FR UltraWhite fully adhered with LiquiGard Membrane Adhesive squeegee applied at a rate of 1.5 – 2.0 gal/square. The minimum 3 in. wide side laps are sealed with LiquiGard Membrane Adhesive squeegee applied at a rate of 1.5 – 2.0 gal/square.

Or

One ply of Firestone SBS Torch, SBS Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS Premium FR Torch or SBS Premium FR Torch UltraWhite, torch adhered.

Or

(Not with SBS Base, , SBS Smooth) One ply of Firestone SBS Smooth, SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with Multi-Purpose MB Cold Adhesive applied at 1½ - 2 gal/sq.

**Surfacing:**

(Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag at 400 lbs. and 300 lbs. respectively, set in a flood coat of Type III or IV asphalt at 60 lbs./sq.
2. Karnak No. 97, No. 97 AF or No. 169 at an application rate of 1-1/2 to 3 gal./sq.

**Maximum Design Pressure:**

-45 psf (See General Limitation #7.)



**Membrane Type:** APP  
**Deck Type 6I:** Poured Gypsum, Insulated  
**Deck Description:** Poured Gypsum Concrete.  
**System Type C(1):** All layers of insulation simultaneously fastened.

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
Approved Perlite Minimum 3/4" thick	N/A	N/A
ENRGY 3, ENRGY 3 25 PSI, Ultra-Max-3 Minimum 1.4" 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.**

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
Approved Perlite Minimum 3/4" thick	1	1:2 ft <sup>2</sup>

**Note: 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.**

**Base Sheet:** One ply of Firestone MB Base adhered to the insulation with hot asphalt adhesive applied within the EVT range and at a rate of 20-40 lbs./sq.. If base sheet is applied directly to polyisocyanurate insulation, only a spot or strip mopped application as detailed in this approval is approved; see General Limitation #4.

**Ply Sheet:** (Optional) One or more plies of Firestone MB Base, Ply IV , Ply IV (4) M, Ply VI or Ply VI (6) M ply sheet or other listed base sheet applied in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one or more plies of Firestone SBS Glass Torch Base or SBS PolyTorch Base torch adhered.

**Membrane:** One ply of Firestone APP 180, APP 180-P, APP 180 UltraWhite, APP 180 FR, APP 180 FR UltraWhite, applied by torch parallel to the base ply, with the overlaps staggered 12".



**Surfacing:** (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag at 400 lbs. and 300 lbs. respectively, set in a flood coat of Type III or IV asphalt at 60 lbs./sq.
2. Karnak No. 97, No. 97 AF or No. 169 at an application rate of 1-1/2 to 3 gal./sq.

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



**Membrane Type:** SBS  
**Deck Type 6I:** Poured Gypsum, Insulated  
**Deck Description:** Poured Gypsum Concrete.  
**System Type C(2):** All layers of insulation simultaneously fastened.

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
Approved Perlite Minimum 3/4" thick	N/A	N/A
ENRGY 3, ENRGY 3 25 PSI, Ultra-Max-3 Minimum 1.4" 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.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft<sup>2</sup></u>
Approved Perlite Minimum 3/4" thick	1	1:2 ft <sup>2</sup>

**Note:** 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.

**Base Sheet:** One ply of Firestone MB Base, SBS Base, , Firestone Ply IV , Ply IV (4) M, Ply VI or Ply VI (6) M ply sheet adhered to the insulation in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Ply Sheet:** (Optional) One or more plies of SBS Smooth, SBS Base, or Firestone Ply IV , Ply IV (4) M, Ply VI or Ply VI (6) M ply sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one or more plies of Firestone SBS Glass Torch Base or SBS PolyTorch Base torch adhered.

**Membrane:** One ply of Firestone SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Smooth, SBS Premium, SBS Premium FR, SBS Premium FR UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Or



(Not with MB Base) One ply of Firestone SBS Smooth, SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR, SBS Premium FR UltraWhite fully adhered with LiquiGard Membrane Adhesive squeegee applied at a rate of 1.5 – 2.0 gal/square. The minimum 3 in. wide side laps are sealed with LiquiGard Membrane Adhesive squeegee applied at a rate of 1.5 – 2.0 gal/square.

Or

One ply of Firestone SBS Torch, SBS Torch UltraWhite, SBS FR Torch, SBS FR Torch UltraWhite, SBS Glass FR Torch, SBS Glass FR Torch UltraWhite, SBS Premium Torch, SBS Premium Torch UltraWhite, SBS Premium FR Torch or SBS Premium FR Torch UltraWhite, torch adhered.

Or

(Not with SBS Base, , SBS Smooth) One ply of Firestone SBS Smooth, SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Glass, SBS Glass FR, SBS Glass FR UltraWhite, SBS Premium, SBS Premium FR or SBS Premium FR UltraWhite cap sheet fully adhered to the base sheet with Multi-Purpose MB Cold Adhesive applied at 1½ - 2 gal/sq.

**Surfacing:**

(Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag at 400 lbs. and 300 lbs. respectively, set in a flood coat of Type III or IV asphalt at 60 lbs./sq.
2. Karnak No. 97, No. 97 AF or No. 169 at an application rate of 1-1/2 to 3 gal./sq.

**Maximum Design Pressure:**

-45 psf (See General Limitation #7.)



**Membrane Type:** APP  
**Deck Type 6:** Poured Gypsum, Non-Insulated  
**Deck Description:** Poured Gypsum Concrete.  
**System Type E(1):** All layers of insulation simultaneously fastened.

**All General and System Limitations apply.**

**Base Sheet:** One ply of Firestone MB Base or MB Base M fastened to deck as described below.

**Fastening:** Firestone Two Piece Impact Nail or Trufast Twin-Loc Nail Assembled Fasteners at a 4” side lap 9” o.c. and in two rows staggered in the center of the sheet 12” o.c.

**Ply Sheet:** (Optional) One or more plies of APP 160-P heat welded.  
Or  
One or more plies of Firestone MB Base, Ply IV , Ply IV (4) M, Ply VI or Ply VI (6) M Ply Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one or more plies of Firestone SBS Glass Torch Base or SBS PolyTorch Base torch adhered.

**Membrane:** Firestone APP 180, APP 180-P, APP 180 UltraWhite, APP 180 FR, APP 180 FR UltraWhite, heat welded.

**Surfacing:** (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag at 400 lbs. and 300 lbs. respectively, set in a flood coat of Type III or IV asphalt at 60 lbs./sq.
2. Karnak No. 97, No. 97 AF or No. 169 at an application rate of 1-1/2 to 3 gal./sq.

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



**Membrane Type:** SBS  
**Deck Type 6:** Poured Gypsum, Non-Insulated  
**Deck Description:** Poured Gypsum Concrete.  
**System Type E(2):** All layers of insulation simultaneously fastened.

**All General and System Limitations apply.**

**Base Sheet:** One ply of Firestone MB Base or MB Base M fastened to deck as described below.

**Fastening:** Firestone Two Piece Impact Nail or Trufast Twin-Loc Nail Assembled Fasteners at a 4” side lap 9” o.c. and in two rows staggered in the center of the sheet 12” o.c.

**Ply Sheet:** (Optional) One or more plies of SBS Base, SBS Smooth, MB Base, or Ply IV , Ply IV (4) M, Ply VI or Ply VI (6) M Ply Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one or more plies of Firestone SBS Glass Torch Base or SBS PolyTorch Base torch adhered.

**Membrane:** Firestone SBS Cap, SBS Cap UltraWhite, SBS FR Cap, SBS FR Cap UltraWhite, SBS Premium, SBS Premium FR, SBS Premium FR UltraWhite or SBS Smooth adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Surfacing:** (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Gravel or slag at 400 lbs. and 300 lbs. respectively, set in a flood coat of Type III or IV asphalt at 60 lbs./sq.
2. Karnak No. 97, No. 97 AF or No. 169 at an application rate of 1-1/2 to 3 gal./sq.

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



## 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. 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 9N-3 of the Florida Administrative Code.

**END OF THIS ACCEPTANCE**

