



**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)**

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

**Simon Roofing and Sheet Metal Corp. dba SR Products  
70 Karago Avenue  
Youngstown, OH 44512**

**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: SRMG Modified Bitumen Roof System for Lightweight 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 consists of pages 1 through 31.

The submitted documentation was reviewed by Hamley Pacheco, P.E.



**NOA No.: 14-1030.05  
Expiration Date: 11/06/23  
Approval Date: 05/02/19  
Page 1 of 31**

## ROOFING SYSTEM APPROVAL

<b>Category:</b>	Roofing
<b>Sub-Category:</b>	Modified Bitumen
<b>Material:</b>	APP/SBS
<b>Deck Type:</b>	Lightweight Concrete
<b>Maximum Design Pressure:</b>	-82.5 psf

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

TABLE 1

Product	Dimensions	Test Specification	Product Description
SR Ply 4 GS	39.37" (1 meter) Wide	ASTM D2178	Smooth surfaced asphaltic ply sheet reinforced with fiberglass mat.
SR Base GS V	39.37" (1 meter) Wide	ASTM D4897	Smooth surfaced asphaltic perforated venting base sheet reinforced with fiberglass mat.
SR Base G G MA V	39.37" (1 meter) Wide	ASTM D4897	Smooth surfaced asphaltic nailable venting base sheet reinforced with fiberglass mat. Bottom side surfaced with granules.
SR MB S42P S HWLD	39.37" (1 meter) Wide	ASTM D6164	Smooth surfaced torch applied SBS base or ply sheet reinforced with a polyester mat.
SR MB Reflex HWLD	39.37" (1 meter) Wide	ASTM D6164	Fire retardant granule surfaced heat-welded SBS cap sheet reinforced with a polyester mat. Cap sheet is factory coated with EnergyCote™.
SR MB A38P S	39.37" (1 meter) Wide	ASTM D6222	Smooth surfaced torch applied APP base or ply sheet reinforced with a polyester mat.
SR MB A40P M	39.37" (1 meter) Wide	ASTM D6222	Granule surfaced torch applied APP cap sheet reinforced with a polyester mat.
SR MB Reflex APP Plus	39.37" (1 meter) Wide	ASTM D6222	Fire retardant granule surfaced torch applied APP cap sheet reinforced with a polyester mat. Cap sheet is factory coated with EnergyCote™.
SR MB S21G S	39.37" (1 meter) Wide	ASTM D6163	SBS polymer-modified asphalt base or ply sheet reinforced with a fiberglass mat.
SR MB S22P S	39.37" (1 meter) Wide	ASTM D6164	Smooth surfaced mop applied SBS base or ply sheet reinforced with a polyester mat.
SR MB S30P S	39.37" (1 meter) Wide	ASTM D6164	Smooth surfaced mop applied SBS base or ply sheet reinforced with a polyester mat.



<b>Product</b>	<b>Dimensions</b>	<b>Test Specification</b>	<b>Product Description</b>
SR MB Reflex 39 SBS M FR SBS	39.37" (1 meter) Wide	ASTM D6164	Fire retardant granule surfaced mop applied SBS cap sheet reinforced with a polyester mat. Cap sheet is factory coated with EnergyCote™.
SR MB S40P M FR	39.37" (1 meter) Wide	ASTM D6164	Fire retardant granule surfaced mop applied SBS cap sheet reinforced with a polyester mat.
SR MB Cap 35 G S M FR Reflex	39.37" (1 meter) Wide	ASTM D6163	Fire retardant granule surfaced mop applied SBS cap sheet reinforced with a fiberglass mat. Cap sheet is factory coated with EnergyCote™.

### **APPROVED INSULATIONS:**

**TABLE 2**

<b>Product Name</b>	<b>Product Description</b>	<b>Manufacturer (With Current NOA)</b>
ISO 95+ GL	Polyisocyanurate foam insulation	Firestone Building Products Company, LLC
ACFoam-II	Polyisocyanurate foam insulation	Atlas Roofing Corporation
H-Shield	Polyisocyanurate foam insulation	Hunter Panels, LLC
ENRGY 3	Polyisocyanurate foam insulation	Johns Manville
ACFoam Composite	Polyisocyanurate foam insulation with high density fiberboard or Permalite.	Atlas Roofing Corporation
Retro-Fit Board	Perlite insulation board.	Johns Manville
FescoBoard	Perlite recover board	Johns Manville
DensDeck® Roof Board	Gypsum board	Georgia-Pacific Gypsum LLC
SECUROCK® Gypsum-Fiber Roof Board	Gypsum board	United States Gypsum Corp.



## APPROVED FASTENERS/ADHESIVES:

TABLE 3				
Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	#12 Standard Roofgrip Fastener	Phillips head, modified buttress thread, pinch point, carbon steel fastener for use in steel or wood decks. With CR-10 coating. Available with a pinch point or drill point.	#12 x 8" max. length, #3 Phillips head.	OMG, Inc.
2.	OMG Heavy Duty	Truss head, self-drilling, pinch point, high thread fastener for use in steel, wood or concrete decks.	#14 x 16" max. length, #3 Phillips head.	OMG, Inc.
3.	#15 Roofgrip Fastener	Truss head, self-drilling, pinch point, high thread fastener for use in wood or steel decks.	#15 x 16" max. length, #3 Phillips head.	OMG, Inc.
4.	CR Base Sheet Fastener (1.2")	G-90 galvanized fastener with plate for base sheet attachment to gypsum decks and on lightweight insulating concrete decks. Coated with CR-10 fluorocarbon coating.	1.125" head x 1.2" length 2.75" Galvalume® steel stress plate.	OMG, Inc.
5.	CR Base Sheet Fastener (1.7")	G-90 galvanized fastener with plate for base sheet attachment to gypsum decks and on lightweight insulating concrete decks. Coated with CR-10 fluorocarbon coating.	1.125" head x 1.75" length. 2.75" Galvalume steel stress plate.	OMG, Inc.
6.	Trufast FM-75 Base Sheet Fastener	Galvanized fastener with plate for base sheet attachment to gypsum decks and lightweight insulating concrete decks	1.125" head x 1.2" length. 2.75" Galvalume steel stress plate. and 2.7" head x 1.7" long	Altenloh, Brinck & Co. U.S., Inc.
7.	Trufast FM-90 Base Sheet Fastener	Galvanized fastener with plate for base sheet attachment to gypsum decks and lightweight insulating concrete decks	1.125" head x 1.2" length. 2.75" Galvalume steel stress plate. and 2.7" head x 1.7" long	Altenloh, Brinck & Co. U.S., Inc.



**APPROVED FASTENERS/ADHESIVES:**

<b>Fastener Number</b>	<b>Product Name</b>	<b>TABLE 3 Product Description</b>	<b>Dimensions</b>	<b>Manufacturer (With Current NOA)</b>
8.	Trufast Twin Loc-Nail Assembled Fastener	Preassembled fastener/plate unit for base ply and insulation attachment to cementitious wood fiber, poured gypsum and lightweight insulating concrete decks.	Various	Altenloh, Brinck & Co. U.S., Inc.
9.	AccuTrac Flat Bottom	A2-SS aluminized steel plate for use with OMG fasteners.	3" square; .017" thick	OMG, Inc.
10.	AccuTrac Plate	Galvalume® steel plate with recess for use with OMG fasteners.	3" square; .017" thick.	OMG, Inc.
11.	3 in. Ribbed Galvalume Plate	Round Galvalume® steel stress plate with reinforcing ribs and recessed for use with OMG fasteners.	3" Round	OMG, Inc.
12.	CD-10	Carbon steel expansion fastener for use in structural concrete decks. CR-10 coated.	0.214" min. dia. x 12" max. length; wafer head	OMG, Inc.
13.	OMG 2" Barbed Plate	Round galvanized steel stress plates for use with OMG fasteners.	2" Round	OMG, Inc.
14.	OMG 2" Barbed Plate	Round galvanized steel stress plates for use with OMG fasteners.	2" Round	OMG, Inc.



**EVIDENCE SUBMITTED:****Test Agency/Identifier**

FM Approvals

**Name****Report****Date**

FM 4470	0D0A8.AM	07/09/97
FM 4470	2B8A4.AM	07/02/97
FM 4470	3005640	11/09/00
FM 4470	3006845	10/17/00
FM 4470	3005175	05/23/00
FM 4470	3005177	05/19/00
FM 4470	3007500	06/15/00
FM 4470	3008178	12/27/00
FM 4470	1B9A8.AM	09/04/97
FM 4470	3D4Q2.AM	04/30/97
FM 4470	3017250	04/05/04
FM 4470	3041005	05/31/11
FM 4470	3042887	11/14/11
FM 4470	3040738	11/16/10
FM 4470	3014547	05/22/03
FM 4470	3036980	08/14/09
FM 4470	3029832	05/11/07
FM 4470	3022508	07/20/05
FM 4470	3047104	08/29/13
FM 4470	797-09999-267	10/30/14
FM 4470	797-10228-267	01/15/15
FM 4470	RR203450	12/04/15
FM 4470	FM Letter	04/11/13
FM 4470	FM Letter	09/15/15



**EVIDENCE SUBMITTED: (CONTINUED)**

<b><u>Test Agency/Identifier</u></b>	<b><u>Name</u></b>	<b><u>Report</u></b>	<b><u>Date</u></b>
UL LLC	UL 790	R1306	08/21/18
Exterior Research & Design, LLC	TAS 114	4483.04.97-1	06/06/97
Trinity   ERD	ASTM D6862	C8500SC.11.07	11/30/07
	ASTM D6222	G30250.02.10-2	02/11/10
	ASTM D3909	G30250.02.10-3-R2	06/03/15
	ASTM D6164	G31360.03.10	03/31/10
	ASTM D6164	G33470.01.11	01/13/11
	ASTM D6163	G34140.04.11-2	04/25/11
	ASTM D4601	G34140.04.11-4-R2	06/04/15
	ASTM D4879	G34140.04.11-5-R3	06/04/15
	ASTM D6222	G40620.07.12-2	07/17/12
	ASTM D6163	G40630.01.14-1	01/06/14
	ASTM D6164	G40630.01.14-2A	01/07/14
	ASTM D6164	G40630.01.14-2A-1-R1	04/10/14
	ASTM D6164	G40630.01.14-2B-R1	01/16/15
	ASTM D6164	G40630.01.14-2C	01/07/14
	ASTM D6164	G40630.03.14	03/06/14
	ASTM D6222	G43190.03.14-1	03/06/14
	ASTM D6222	G43190.03.14-2	03/06/14
	ASTM D6222	G43190.05.14-R1	05/20/14
	ASTM D6222	G43190.11.13-1	11/15/13
	ASTM D3909	G43610.01.14	01/22/14
	ASTM D3909	SC6870.08.14-R1	09/04/14
	ASTM D6163	G46160.02.15	02/12/15
	ASTM D6163	G46160.02.15-2D-1	02/09/16
	ASTM D6163	G46160.03.15	03/11/15
	TAS 114	SC8580.11.15-3	11/09/15
	ASTM D6163	G46160.09.14-2A	09/09/14
	ASTM D6164	G46160.09.14-3A	09/09/14
	ASTM D6164	G46160.09.14-3B	09/09/14
	ASTM D6164	G46160.09.14-3C	09/09/14
	ASTM D6164	G46160.12.14-3E	12/29/14
	ASTM D6163	G6850.08.08	08/01/08
	ASTM D6164	G6850.08.08-R1	04/14/11
	ASTM D6222	G6850.10.08	10/06/08
	ASTM D6222	G6850.11.08	02/17/09
	ASTM D1876	SC12880.09.16	09/28/16
	ASTM D1897	SC8580.01.16-6-R1	12/02/16
Atlantic & Caribbean Roof Consulting, LLC	TAS 114-J	06-044	11/16/06
	TAS 114-J	06-048	12/21/06
	TAS 114-J	06-049	12/22/06
	TAS 114-J	12-015	04/24/12
	TAS 114-J	15-028	12/01/15
	TAS 114-J	16-002	03/04/16



**EVIDENCE SUBMITTED: (CONTINUED)**

<b><u>Test Agency/Identifier</u></b>	<b><u>Name</u></b>	<b><u>Report</u></b>	<b><u>Date</u></b>
PRI Construction Materials Technologies LLC.	TAS 139	GAF-671-02-01	06/30/16
	ASTM D2178	GAF-314-02-01	08/23/11
	ASTM D2178	GAF-315-02-01	08/23/11
	ASTM C1289	GAF-369-02-01	10/22/12
	ASTM C1289	GAF-464-02-01	02/06/14
	ASTM D6083	GAF-498-02-01	09/16/16
	ASTM D6083	GAF-499-02-01	03/12/14
	ASTM D6083	GAF-500-02-01	03/12/14
	ASTM D1876	GAF-559-02-04	03/04/15
	ASTM D1876	GAF-559-02-05	03/04/15

**DECK STRESS ANALYSIS CALCULATIONS/REPORTS**

<b><u>Engineer/Agency</u></b>	<b><u>Identifier</u></b>	<b><u>Assemblies:</u></b>	<b><u>Date</u></b>
FM Approval Deck Limitations	N/A	A(1), A(2), A(3), A(4), E(1), E(2), E(5)	01/01/13
Robert Nieminen, P.E.	Letter	E(3), E(4), E(6), E(7), E(8), E(9)	09/12/18
	Report	E(10)	11/09/15
Randall Fowler, P.E.	Letter	E(11), E(12)	02/12/16
	Letter	E(13), E(14)	03/15/16





## APPROVED ASSEMBLIES

**Membrane Type:** APP/SBS

**Deck Type 4I:** Lightweight Concrete, Insulated, (See System Limitation)

**Deck Description:** Minimum 300 psi Celcore Cellular Lightweight Concrete with minimum 1" EPS Holey Board. Minimum 2" slurry coat poured over the EPS, When LWC is set up to support foot traffic apply Celcore PVA Curing Compound to the top surface at a rate of 300 ft<sup>2</sup>/gal.

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

**Deck:** Structural concrete deck or Minimum 22 ga. Grade 33 steel deck secured 6" o.c. to structural supports spaced a maximum of 5 ft. o.c. with 5/8" puddle welds with washer and side laps with Tek 1 or Tek 3 at 30" o.c.  
**This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**

**All General and System Limitations shall apply.**

**Anchor Sheet:** Install one ply of SR Base G G MA V, SR MB S21G S, SR MB S22P S or SR MB S30P S mechanically fastened as described below.

**Fasteners:** CR Base Sheet Fasteners (1.7") or Trufast FM-90 Base Sheet Fasteners at a fastener spacing of 9" o.c. at the 2" wide side laps and 9" o.c. in two equally spaced rows in the field of the base sheet.

Or

CR Base Sheet Fasteners (1.7") or Trufast FM-90 Base Sheet Fasteners at a fastener spacing of 12" o.c. at the 2" wide side laps and 12" o.c. in three equally spaced rows in the field of the base sheet.

One or more layers of any of the following insulations.

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ISO 95+ GL, H-Shield Minimum 1.4" thick</b>	N/A	N/A
<b>ACFoam Composite, ISO 95+ GL, H-Shield, ACFoam-II, ENRGY 3 Minimum 1½" thick</b>	N/A	N/A
<b>ACFoam-II Minimum 1¾" thick</b>	N/A	N/A
<b>Retro-Fit Board, FescoBoard, DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board Minimum ½" thick</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. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the Polyisocyanurate side facing down.



- Base Sheet: One ply of SR Ply 4 GS, SR MB S21G S, SR MB S22P S or SR MB S30P S adhered to the insulation in a full mopping of an approved asphalt at an application rate of 25 lbs./sq.  $\pm$  15% see General Limitation #4.  
Or  
One ply of SR Base GS V loose laid dry followed by a mopped ply sheet listed below.
- Ply Sheet:  
(Optional) **(Required over SR Base GS V)** One or more plies of SR Ply 4 GS, SR MB S21G S, SR MB S22P S or SR MB S30P S in an approved asphalt at an application rate of 20-40 lbs./sq.
- Membrane: One or more plies of SR MB A38P S, SR MB A40P M or SR MB Reflex APP Plus torch applied according to manufacturer's application instructions.  
Or  
One or more plies SR MB S42P S HWLD or SR MB Reflex HWLD applied according to manufacturer's application instructions.
- Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.**
1. Gravel or slag applied at 400 lbs. /sq. and 300 lbs. /sq. respectively in a flood coat of approved asphalt at 60 lbs. /sq.
- Maximum Design  
Pressure: -45 psf. (See General Limitation #7)



**Membrane Type:** SBS/SBS

**Deck Type 4I:** Lightweight Concrete, Insulated, (See System Limitation)

**Deck Description:** Minimum 300 psi Celcore Cellular Lightweight Concrete with minimum 1" EPS Holey Board. Minimum 2" slurry coat poured over the EPS, When LWC is set up to support foot traffic apply Celcore PVA Curing Compound to the top surface at a rate of 300 ft<sup>2</sup>/gal.

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

**Deck:** Structural concrete deck or Minimum 22 ga. Grade 33 steel deck secured 6" o.c. to structural supports spaced a maximum of 5 ft. o.c. with 5/8" puddle welds with washer and side laps with Tek 1 or Tek 3 at 30" o.c.

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

**All General and System Limitations shall apply.**

**Anchor Sheet:** Install one ply of SR Base G G MA V, SR MB S21G S, SR MB S22P S or SR MB S30P S mechanically fastened as described below.

**Fasteners:** CR Base Sheet Fasteners (1.7") or Trufast FM-90 Base Sheet Fasteners at a fastener spacing of 9" o.c. at the 2" wide side laps and 9" o.c. in two equally spaced rows in the field of the base sheet.

Or

CR Base Sheet Fasteners (1.7") or Trufast FM-90 Base Sheet Fasteners at a fastener spacing of 12" o.c. at the 2" wide side laps and 12" o.c. in three equally spaced rows in the field of the base sheet.

One or more layers of any of the following insulations.

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ISO 95+ GL, H-Shield Minimum 1.4" thick</b>	N/A	N/A
<b>ACFoam Composite, ISO 95+ GL, ACFoam-II, H-Shield, ENRGY 3 Minimum 1½" thick</b>	N/A	N/A
<b>ACFoam-II Minimum 1¾" thick</b>	N/A	N/A
<b>Retro-Fit Board, FescoBoard, DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board Minimum ½" thick</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. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the Polyisocyanurate side facing down.



- Base Sheet: One ply of SR Ply 4 GS, SR MB S21G S, SR MB S22P S or SR MB S30P S adhered to the insulation in a full mopping of an approved asphalt at an application rate of 20-40 lbs./sq. See General Limitation #4.  
Or  
SR Base GS V loose laid dry followed by a mopped ply sheet listed below.
- Ply Sheet:  
(Optional) **(Required over SR Base GS V)** One or more plies of SR Ply 4 GS, SR MB S21G S, SR MB S22P S or SR MB S30P S in an approved asphalt at an application rate of 20-40 lbs./sq.
- Membrane: One or more plies of SR MB S21G S, SR MB S22P S, SR MB S30P S, SR MB Reflex 39 SBS M FR SBS, SR MB S40P M FR or SR MB Cap 35 G S M FR Reflex fully adhered in type III or IV of an approved asphalt at an application rate 20-40 lbs./sq.  
Or  
One or more plies SR MB S42P S HWLD or SR MB Reflex HWLD applied according to manufacturer's application instructions.
- Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.**
1. Gravel or slag applied at 400 lbs. /sq. and 300 lbs. /sq. respectively in a flood coat of approved asphalt at 60 lbs. /sq.
- Maximum Design  
Pressure: -45 psf. (See General Limitation #7)



**Membrane Type:** APP/SBS

**Deck Type 4I:** Lightweight Concrete, Insulated, (See System Limitation)

**Deck Description:** Minimum 300 psi Celcore Cellular Lightweight Concrete with minimum 1" EPS Holey Board. Minimum 2" slurry coat poured over the EPS, When LWC is set up to support foot traffic apply Celcore PVA Curing Compound to the top surface at a rate of 300 ft<sup>2</sup>/gal.

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

**Deck:** Structural concrete deck or Minimum 22 ga. Grade 33 steel deck secured 6" o.c. to structural supports spaced a maximum of 5 ft. o.c. with 5/8" puddle welds with washer and side laps with Tek 1 or Tek 3 at 30" o.c.

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

**All General and System Limitations shall apply.**

**Anchor Sheet:** Install one ply of SR Base G G MA V, SR MB S21G S, SR MB S22P S or SR MB S30P S mechanically fastened as described below.

**Fasteners:** CR Base Sheet Fasteners (1.7") or Trufast FM-90 Base Sheet Fasteners at a fastener spacing of 7" o.c. at the 3" wide side laps and 7" o.c. in two equally spaced rows in the field of the base sheet.

One or more layers of any of the following insulations

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam Composite, ISO 95+ GL, ACFoam-II, H-Shield, ENRGY 3 Minimum 1½" thick</b>	N/A	N/A
<b>Retro-Fit Board, FescoBoard, DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board Minimum ½" thick</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. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the Polyisocyanurate side facing down.

**Base Sheet:** One ply of SR Ply 4 GS, SR MB S21G S, SR MB S22P S or SR MB S30P S adhered to the insulation in a full mopping of an approved asphalt at an application rate of 20-40 lbs./sq. or adhered in a strip or spot mopping of an approved asphalt; see General Limitation #4.  
Or  
SR Base GS V loose laid dry followed by a mopped ply sheet listed below.

**Ply Sheet:** **(Required over SR Base GS V)** One or more plies of SR Ply 4 GS, SR MB S21G S, SR MB S22P S or SR MB S30P S in an approved asphalt at an application rate of 20-40 lbs./sq.  
**(Optional)**



Membrane: One or more plies of SR MB A38P S, SR MB A40P M or SR MB Reflex APP Plus torch applied according to manufacturer's application instructions.  
Or  
One or more plies SR MB S42P S HWLD or SR MB Reflex HWLD applied according to manufacturer's application instructions.

Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.**

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

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



**Membrane Type:** SBS/SBS

**Deck Type 4I:** Lightweight Concrete, Insulated, (See System Limitation)

**Deck Description:** Minimum 300 psi Celcore Cellular Lightweight Concrete with minimum 1" EPS Holey Board. Minimum 2" slurry coat poured over the EPS, When LWC is set up to support foot traffic apply Celcore PVA Curing Compound to the top surface at a rate of 300 ft<sup>2</sup>/gal.

**System Type A(4):** Anchor sheet mechanically fastened; one or more layers of insulation adhered with approved asphalt.

**Deck:** Structural concrete deck or Minimum 22 ga. Grade 33 steel deck secured 6" o.c. to structural supports spaced a maximum of 5 ft. o.c. with 5/8" puddle welds with washer and side laps with Tek 1 or Tek 3 at 30" o.c.

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

**All General and System Limitations shall apply.**

**Anchor Sheet:** Install one ply of SR Base G G MA V or SR MB S21G S mechanically fastened as described below.

**Fasteners:** CR Base Sheet Fasteners (1.7") or Trufast FM-90 Base Sheet Fasteners at a fastener spacing of 7" o.c. at the 3" wide side laps and 7" o.c. in two equally spaced rows in the field of the base sheet.

One or more layers of any of the following insulations.

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam Composite, ACFoam-II, ENRGY 3 Minimum 1½" thick</b>	N/A	N/A
<b>Retro-Fit Board, DensDeck® Roof Board, SECUROCK® Gypsum-Fiber Roof Board Minimum ½" thick</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. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the Polyisocyanurate side facing down.**

**Base Sheet:** One ply of SR Ply 4 GS, SR MB S21G S, SR MB S22P S or SR MB S30P S adhered to the insulation in a full mopping of an approved asphalt at an application rate of 25 lbs./sq. ± 15%; see General Limitation #4.  
Or  
SR Base GS V laid dry followed by a mopped ply sheet listed below.

**Ply Sheet:** **(Required over SR Base GS V)** One or more plies of SR Ply 4 GS, SR MB S21G S, SR MB S22P S or SR MB S30P S in an approved asphalt at an application rate of 20-40 lbs./sq.  
**(Optional)**



- Membrane: One or more plies of SR MB S21G S, SR MB S22P S, SR MB S30P S, SR MB Reflex 39 SBS M FR SBS, SR MB S40P M FR or SR MB Cap 35 G S M FR Reflex fully adhered in type III or IV of an approved asphalt at an application rate 20-40 lbs./sq.  
Or  
One or more plies SR MB S42P S HWLD or SR MB Reflex HWLD applied according to manufacturer's application instructions.
- Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.**
1. Gravel or slag applied at 400 lbs. /sq. and 300 lbs. /sq. respectively in a flood coat of approved asphalt at 60 lbs. /sq.
- Maximum Design Pressure: -75 psf. (See General Limitation #7)





**Membrane Type:** APP/SBS Heat Weld

**Deck Type 4:** Lightweight Concrete, Non-insulated, (See System Limitations)

**Deck Description:** Minimum 300 psi Celcore Cellular Lightweight Concrete with minimum 1" EPS Holey Board. Minimum 2" slurry coat poured over the EPS, When LWC is set up to support foot traffic apply Celcore PVA Curing Compound to the top surface at a rate of 300 ft<sup>2</sup>/gal.

**System Type E(1):** Base sheet mechanically attached.

**Deck:** Structural concrete deck or Minimum 22 ga. Grade 33 steel deck secured 6" o.c. to structural supports spaced a maximum of 5 ft. o.c. with 5/8" puddle welds with washer and side laps with Tek 1 or Tek 3 at 30" o.c.

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

**All General and System Limitations shall apply.**

**Base Sheet:** Install one ply of SR Base G G MA V, SR MB S21G S, SR MB S22P S or SR MB S30P S mechanically fastened as described below.

**Fastening Options:** CR Base Sheet Fasteners (1.7") or Trufast FM-90 Base Sheet Fasteners at a fastener spacing of 9" o.c. at the 2" wide side laps and 9" o.c. in two equally spaced rows in the field of the base sheet.

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

CR Base Sheet Fasteners (1.7") or Trufast FM-90 Base Sheet Fasteners at a fastener spacing of 12" o.c. at the 2" wide side laps and 12" o.c. in three equally spaced rows in the field of the base sheet.

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

CR Base Sheet Fasteners (1.7") or Trufast FM-90 Base Sheet Fasteners at a fastener spacing of 7" o.c. at the 3" wide side laps and 7" o.c. in two equally spaced rows in the field of the base sheet.

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

**Ply Sheet: (Optional)** One ply SR MB S42P S HWLD torch applied according to manufacturer's application instructions.

**Membrane:** One or more plies of SR MB A38P S, SR MB A40P M or SR MB Reflex APP Plus torch applied according to manufacturer's application instructions.

Or

One or more plies SR MB S42P S HWLD or SR MB Reflex HWLD applied according to manufacturer's application instructions.

**Surfacing:** **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.**

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

**Maximum Design Pressure:** See Fastening Options Above



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**Membrane Type:** SBS/SBS

**Deck Type 4:** Lightweight Concrete, Non-insulated (See System Limitation)

**Deck Description:** Minimum 300 psi Celcore Cellular Lightweight Concrete with minimum 1" EPS Holey Board. Minimum 2" slurry coat poured over the EPS, When LWC is set up to support foot traffic apply Celcore PVA Curing Compound to the top surface at a rate of 300 ft<sup>2</sup>/gal.

**System Type E(2):** Base sheet mechanically attached.

**Deck:** Structural concrete deck or Minimum 22 ga. Grade 33 steel deck secured 6" o.c. to structural supports spaced a maximum of 5 ft. o.c. with 5/8" puddle welds with washer and side laps with Tek 1 or Tek 3 at 30" o.c.

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

**All General and System Limitations shall apply.**

**Base Sheet:** Install one ply of SR Base G G MA V, SR MB S21G S, SR MB S22P S or SR MB S30P S mechanically fastened as described below.

**Fastening Options:** CR Base Sheet Fasteners (1.7") or Trufast FM-90 Base Sheet Fasteners at a fastener spacing of 9" o.c. at the 2" wide side laps and 9" o.c. in two equally spaced rows in the field of the base sheet.

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

CR Base Sheet Fasteners (1.7") or Trufast FM-90 Base Sheet Fasteners at a fastener spacing of 12" o.c. at the 2" wide side laps and 12" o.c. in three equally spaced rows in the field of the base sheet.

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

CR Base Sheet Fasteners (1.7") or Trufast FM-90 Base Sheet Fasteners at a fastener spacing of 7" o.c. at the 3" wide side laps and 7" o.c. in two equally spaced rows in the field of the base sheet.

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

**Ply Sheet: (Optional)** One or more plies of SR Ply 4 GS, SR MB S21G S, SR MB S22P S or SR MB S30P S adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Membrane:** One or more plies of SR MB S21G S, SR MB S22P S, SR MB S30P S, SR MB Reflex 39 SBS M FR SBS, SR MB S40P FR or SR MB Cap 35 G S M FR Reflex fully adhered in type III or IV of an approved asphalt at an application rate 20-40 lbs./sq.

Or

One or more plies SR MB S42P S HWLD or SR MB Reflex HWLD applied according to manufacturer's application instructions.



Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.**

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

Maximum Design Pressure: See Fastening Options Above



**Membrane Type:** APP/SBS Heat Weld

**Deck Type 4:** Lightweight Concrete, Non-insulated, (See System Limitation)

**Deck Description:** Minimum 750 psi MEARLCRETE® Cellular Concrete LLC Lightweight Insulating concrete having a wet cast density range of 48-63 pcf.

**System Type E(3):** Base sheet mechanically attached.

**Deck:** Minimum 22 ga., G-90, Vented, Grade 33, Type B Wide Rib, steel deck secured 6" o.c. to structural supports spaced a maximum of 6 ft. o.c. with 5/8" puddle welds and with #10 self-drilling screws at 6" o.c. at the side laps.

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

**All General and System Limitations shall apply.**

**Base Sheet:** Install one ply of SR Base G G MA V, SR MB S21G S, SR MB S22P S or SR MB S30P S mechanically fastened as described below.

**Fasteners:** CR Base Sheet Fasteners (1.2") or Trufast FM-75 Base Sheet Fasteners at a fastener spacing of 7" o.c. at the 4" wide side laps and 7" o.c. in two equally spaced rows in the field of the base sheet.

**Ply Sheet:** (Optional, required when using SR MB S21G S, SR MB S22P S or SR MB S30P S)  
One or more plies of SR Ply 4 GS adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Membrane:** One or more plies of SR MB A38P S, SR MB A40P M or SR MB Reflex APP Plus torch applied according to manufacturer's application instructions.  
Or  
One or more plies SR MB S42P S HWLD or SR MB Reflex HWLD applied according to manufacturer's application instructions.

**Surfacing:** **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.**

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

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



**Membrane Type:** SBS/SBS

**Deck Type 4:** Lightweight Concrete, Non-insulated (See Systems Limitations)

**Deck Description:** Minimum 750 psi MEARLCRETE® Cellular Concrete LLC Lightweight Insulating Concrete having a wet cast density range of 48-63 pcf.

**System Type E(4):** Base sheet mechanically attached.

**Deck:** Minimum 22 ga., G-90, Vented, Grade 33, Type B Wide Rib, steel deck secured 6" o.c. to structural supports spaced a maximum of 6 ft. o.c. with 5/8" puddle welds and with #10 self-drilling screws at 6" o.c. at the side laps.

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

**All General and System Limitations shall apply.**

**Base Sheet:** Install one ply of SR Base G G MA V, SR MB S21G S, SR MB S22P S or SR MB S30P S mechanically fastened as described below.

**Fasteners:** CR Base Sheet Fasteners (1.2") or Trufast FM-90 Base Sheet Fasteners at a fastener spacing of 7" o.c. at the 2" wide side laps and 7" o.c. in two equally spaced rows in the field of the base sheet.

**Ply Sheet:** One or more plies of SR Ply 4 GS, SR MB S21G S, SR MB S22P S or SR MB S30P S adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Membrane:** One or more plies of SR MB S21G S, SR MB S22P S, SR MB S30P S, SR MB Reflex 39 SBS M FR SBS, SR MB S40P FR or SR MB Cap 35 G S M FR Reflex fully adhered in type III or IV of an approved asphalt at an application rate 20-40 lbs./sq.

Or

One or more plies SR MB S42P S HWLD or SR MB Reflex HWLD applied according to manufacturer's application instructions.

**Surfacing:** **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.**

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

**Maximum Design**

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



**Membrane Type:** SBS Heat-Weld™

**Deck Type 4:** Lightweight Concrete, Non-insulated (See Systems Limitations)

**Deck Description:** Minimum 300 psi Celcore Cellular Lightweight Concrete with minimum 1" EPS Holey Board. Minimum 2" slurry coat poured over the EPS, When LWC is set up to support foot traffic apply Celcore PVA Curing Compound to the top surface at a rate of 300 ft<sup>2</sup>/gal.

**System Type E(5):** Base sheet mechanically attached.

**Deck:** Structural concrete deck or Minimum 22 ga. Grade 33 steel deck secured 6" o.c. to structural supports spaced a maximum of 5 ft. o.c. with 5/8" puddle welds and at each support at side laps.

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

**All General and System Limitations shall apply.**

**Base Sheet:** Install one ply of SR Base G G MA V, SR MB S21G S, SR MB S22P S or SR MB S30P S mechanically fastened as described below.

**Fasteners:** CR Base Sheet Fasteners (1.7") or Trufast FM-90 Base Sheet Fasteners at a fastener spacing of 9" o.c. at the 2" wide side laps and 9" o.c. in two equally spaced rows in the field of the base sheet.

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

CR Base Sheet Fasteners (1.7") or Trufast FM-90 Base Sheet Fasteners at a fastener spacing of 7" o.c. at the 3" wide side laps and 7" o.c. in two equally spaced rows in the field of the base sheet.

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

**Ply Sheet:** SR MB S42P S HWLD  
**(Optional)** torched applied according to manufacturer's application instructions.

**Membrane:** One or more plies SR MB S42P S HWLD or SR MB Reflex HWLD applied according to manufacturer's application instructions.

**Surfacing:** **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.**

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

**Maximum Design Pressure:** See Fastening Options Above



**Membrane Type:** SBS/SBS

**Deck Type 4:** Lightweight Concrete, Non-insulated (See Systems Limitations)

**Deck Description:** Elastizell Lightweight Insulating Concrete with min. compressive strength of 250 psi, 1/4" thick slurry of Elastizell Lightweight Insulating Concrete was poured over the deck. A layer of EPS Dyplast with a density of 1.0 lb. was firmly pressed over the slurry. Elastizell lightweight insulating concrete was poured over the EPS Board to a thickness of 2" minimum.

**System Type E(6):** Base sheet mechanically attached.

**Deck :** Structural concrete 2500 psi or 22 gauge, Grade 33, vented steel deck, 1.5" Type B mechanically fastened to steel channel-framing joists. The Joists were spaced at 6' o.c. The steel deck was fastened with #5 Tek screws at 6" o.c. one fastener in each flute of the steel deck along the joist and at 6" o.c. along the side laps with #12-24 self-drilling screws.

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

**All General and System Limitations shall apply.**

**Fire Barrier:** Fireboard min 1/4" DensDeck® Roof Board or minimum 1/4" SECUROCK® Gypsum-Fiber Roof Board loose laid over a separator sheet consisting of one of the following products loose laid: SR Base G G MA V.

**Base Sheet:** Install one ply of SR Base G G MA V, SR MB S21G S, SR MB S22P S or SR MB S30P S mechanically fastened as described below.

**Fasteners:** Base Sheet fastened with OMG Heavy Duty, CD-10 for structural concrete or #12 Standard Roofgrip fasteners and 3 in. Ribbed Galvalume Plates, 3 in. Round Metal Plates or AccuTrac Plates into the steel deck at 12" o.c. in the 4" side laps and two staggered rows in the field of the sheet spaced 12" o.c.

**Ply Sheet: (Optional)** One or more plies of SR Ply 4 GS, SR MB S21G S, SR MB S22P S or SR MB S30P S adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.



- Membrane: One or more plies of SR MB S21G S, SR MB S22P S, SR MB S30P S, SR MB Reflex 39 SBS M FR SBS, SR MB S40P FR or SR MB Cap 35 G S M FR Reflex fully adhered in type III or IV of an approved asphalt at an application rate 20-40 lbs./sq.  
Or  
One or more plies SR MB S42P S HWLD or SR MB Reflex HWLD applied according to manufacturer's application instructions.
- Surfacing: **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.**
1. Gravel or slag applied at 400 lbs. /sq. and 300 lbs. /sq. respectively in a flood coat of approved asphalt at 60 lbs. /sq.
- Maximum Design Pressure: -67.5 psf. (See General Limitation #7)





**Membrane Type:** SBS/SBS

**Deck Type 4:** Lightweight Concrete, Non-insulated (See Systems Limitations)

**Deck Description:** Elastizell Lightweight Insulating Concrete with min. compressive strength of 250 psi, 1/4" thick slurry of Elastizell Lightweight Insulating Concrete was poured over the deck. A layer of EPS Dyplast with a density of 1.0 lb. was firmly pressed over the slurry. Elastizell lightweight insulating concrete was poured over the EPS Board to a thickness of 2" minimum.

**System Type E(7):** Base sheet mechanically attached.

**Deck :** Structural concrete 2500 psi or Min. 22 gauge, Grade 33, vented steel deck, 1.5" Type B mechanically fastened to steel channel-framing joists. The Joists were spaced at 6' o.c. The steel deck was fastened with #5 Tek screws at 6" o.c. one fastener in each flute of the steel deck along the joist and at 6" o.c. along the side laps with #12-24 self-drilling screws.

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

**All General and System Limitations shall apply.**

**Fire Barrier:** Fireboard min 1/4" DensDeck® Roof Board or minimum 1/4" SECUROCK® Gypsum-Fiber Roof Board loose laid over a separator sheet consisting of one of the following products loose laid: SR Base G G MA V.

**Base Sheet:** Install one ply of SR MB S22P S or SR MB S42P S HWLD mechanically fastened as described below.

**Fasteners:** Base Sheet fastened with OMG Heavy Duty and OMG 2" Barbed Plates fastened through Elastizell Lightweight Insulating Concrete deck in to the steel or structural concrete deck at 6" o.c. in the 4" side laps, followed by heat welding the laps.

**Ply Sheet:** SR MB S42P S HWLD torched applied according to manufacturer's application instructions.

**Membrane:** One or more plies of SR MB S21G S, SR MB S22P S, SR MB S30P S, SR MB Reflex 39 SBS M FR SBS, SR MB S40P FR or SR MB Cap 35 G S M FR Reflex fully adhered in type III or IV of an approved asphalt at an application rate 20-40 lbs./sq.

Or

One or more plies SR MB S42P S HWLD or SR MB Reflex HWLD applied according to manufacturer's application instructions.

**Surfacing:** **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.**

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

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



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**Membrane Type:** SBS/SBS

**Deck Type 4:** Lightweight Concrete, Non-insulated (See Systems Limitations)

**Deck Description:** Celcore Lightweight Insulating Concrete with min. compressive strength of 300 psi 1/4" thick slurry of Celcore Lightweight Insulating Concrete was poured over the deck. A layer of EPS Dyplast with a density of 1.0 lb. was firmly pressed over the slurry. Celcore Lightweight Insulating Concrete was poured over the EPS Board to a thickness of 2" minimum.

**System Type E(8):** Base sheet mechanically attached.

**Deck :** Min. 2500 psi Structural concrete or 20 gauge vented steel deck, 1.5" type B, attached to steel channel-framing joists. The joists were spaced at 6'-6" o.c. The steel deck was fastened with 5/8" puddle welds at 6" o.c. one 5/8" weld in each flute of the steel deck along the joist and at 6" o.c. along the side laps with # 10 self-drilling screws.  
**This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**

**All General and System Limitations shall apply.**

**Fire Barrier:** Fireboard min 1/4" DensDeck® Roof Board or minimum 1/4" SECUROCK® Gypsum-Fiber Roof Board loose laid over a separator sheet consisting of one of the following products loose laid: SR Base G G MA V.

**Base Sheet:** Install one ply of SR MB S22P S, SR MB S30P S or SR MB S42P S HWLD mechanically fastened as described below.

**Fasteners:** Base Sheet fastened with OMG Heavy Duty and OMG 2" Barbed Plates fastened through Celcore Lightweight Insulating Concrete deck in to the structural concrete or steel deck at 6" o.c. in the 4" side laps, followed by heat welding the 4" laps.

**Ply Sheet:** SR MB S42P S HWLD torched applied according to manufacturer's application instructions.

**Membrane:** One or more plies of SR MB S21G S, SR MB S22P S, SR MB S30P S, SR MB Reflex 39 SBS M FR SBS, SR MB S40P FR or SR MB Cap 35 G S M FR Reflex fully adhered in type III or IV of an approved asphalt at an application rate 20-40 lbs./sq.

Or

One or more plies SR MB S42P S HWLD or SR MB Reflex HWLD applied according to manufacturer's application instructions.

**Surfacing:** **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.**

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

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



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**Deck Type :** Lightweight Concrete, Non-insulated

**Deck Description:** Minimum 231 psi Generic Lightweight Concrete cast over steel deck.  
\*Lightweight concrete should record a Minimum Characteristic Resistance Force (MCRF) of 70.46 lbf. when tested with CR Base Sheet Fasteners (1.7"), Trufast FM-90 Base Sheet Fasteners or Trufast Twin Loc-Nail Assembled Fasteners in accordance with TAS 105.

**Deck :** Min. 22 ga., 33 ksi, Type BV, G-90 steel decking over 1/4" thick steel supports spaced max. 6 ft. o.c. attached 6" o.c. using min. 5/8" diameter puddle welds. Deck side laps are attached 18" o.c. using #12 SD screws.  
**This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**

**System Type E(9):** Anchor sheet mechanically attached.

**All General and System Limitations shall apply.**

**Anchor Sheet:** SR Base G G MA V or SR MB S21G S mechanically fastened to the lightweight concrete with CR Base Sheet Fasteners (1.7"), Trufast FM-90 Base Sheet Fasteners or Trufast Twin Loc-Nail Assembled Fasteners fastened 7" o.c. in the 4" wide side laps and 7" o.c. in two staggered rows in the field of the sheet.

**Membrane:** One or more plies of SR MB A38P S, SR MB A40P M or SR MB Reflex APP  
Plus torch applied according to manufacturer's application instructions.

Or

One or more plies SR MB S42P S HWLD or SR MB Reflex HWLD applied according to manufacturer's application instructions.

**Surfacing:** **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.**

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

**Maximum Design**

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



**Deck Type :** Lightweight Concrete, Non-insulated

**Deck Description:** Minimum 231 psi Generic Lightweight Concrete cast over steel deck.  
\*Lightweight concrete should record a Minimum Characteristic Resistance Force (MCRF) of 70.46 lbf. when tested with CR Base Sheet Fasteners (1.7"), Trufast FM-90 Base Sheet Fasteners or Trufast Twin Loc-Nail Assembled Fasteners in accordance with TAS 105.

**Deck :** Min. 22 ga., 33 ksi, Type BV, G-90 steel decking over 1/4" thick steel supports spaced max. 6 ft. o.c. attached 6" o.c. using min. 5/8" diameter puddle welds. Deck side laps are attached 18" o.c. using #12 SD screws.  
**This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**

**System Type E(10):** Anchor sheet mechanically attached.

**All General and System Limitations shall apply.**

**Anchor Sheet:** (Only for use with SR MB S21G S, SR MB S22P S or SR MB S30P S), SR Base G G MA V or SR MB S21G S mechanically fastened to the lightweight concrete with CR Base Sheet Fasteners (1.7"), Trufast FM-90 Base Sheet Fasteners or Trufast Twin Loc-Nail Assembled Fasteners fastened 7" o.c. in the 4" wide side laps and 7" o.c. in two staggered rows in the field of the sheet.

**Membrane:** One or more plies of SR MB S21G S, SR MB S22P S, SR MB S30P S, SR MB Reflex 39 SBS M FR SBS, SR MB S40P M FR or SR MB Cap 35 G S M FR Reflex fully adhered in type III or IV of an approved asphalt at an application rate 20-40 lbs./sq.

**Surfacing:** **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.**

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

**Maximum Design**

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



**Deck Type :** Lightweight Concrete, Non-insulated

**Deck Description:** Minimum 210 psi Generic Lightweight Concrete cast over steel deck.  
\*Lightweight concrete should record a Minimum Characteristic Resistance Force (MCRF) of 77.93 lbf. when tested with CR Base Sheet Fasteners (1.7"), Trufast FM-90 Base Sheet Fasteners or Trufast Loc-Nail Assembled Fasteners in accordance with TAS 105.

**Deck :** Min. 22 ga., 33 ksi, Type BV, G-90 steel decking over 1/4" thick steel supports spaced max. 6 ft. o.c. attached 6" o.c. using min. 5/8" diameter puddle welds.  
Deck side laps are attached 18" o.c. using #12 SD screws.  
**This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**

**System Type E(11):** Anchor sheet mechanically attached.

**All General and System Limitations shall apply.**

**Anchor Sheet:** SR MB S21G S mechanically fastened to the lightweight concrete with CR Base Sheet Fasteners (1.7"), Trufast FM-90 Base Sheet Fasteners or Trufast Twin Loc-Nail Assembled Fasteners fastened 7" o.c. in the 4" wide side laps and 7" o.c. in two staggered rows in the field of the sheet.  
Or  
SR Base G G MA V mechanically fastened to the lightweight concrete with CR Base Sheet Fasteners (1.7") or Trufast Twin Loc-Nail Assembled Fasteners fastened 7" o.c. in the 4" wide side laps and 7" o.c. in two staggered rows in the field of the sheet.

**Base Ply:** SR MB S42P S HWLD, torch-applied.

**Membrane:** One or more plies of SR MB A38P S, SR MB A40P M or SR MB Reflex APP Plus torch applied according to manufacturer's application instructions.  
Or  
One or more plies SR MB S42P S HWLD or SR MB Reflex HWLD applied according to manufacturer's application instructions.

**Surfacing:** **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.**

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

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



**Deck Type :** Lightweight Concrete, Non-insulated

**Deck Description:** Minimum 210 psi Generic Lightweight Concrete cast over steel deck.  
\*Lightweight concrete should record a Minimum Characteristic Resistance Force (MCRF) of 77.93 lbf. when tested with CR Base Sheet Fasteners (1.7"), Trufast FM-90 Base Sheet Fasteners or Trufast Twin Loc-Nail Assembled Fasteners in accordance with TAS 105.

**Deck :** Min. 22 ga., 33 ksi, Type BV, G-90 steel decking over 1/4" thick steel supports spaced max. 6 ft. o.c. attached 6" o.c. using min. 5/8" diameter puddle welds. Deck side laps are attached 18" o.c. using #12 SD screws.  
**This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**

**System Type E(12):** Anchor sheet mechanically attached.

**All General and System Limitations shall apply.**

**Anchor Sheet:** SR MB S21G S mechanically fastened to the lightweight concrete with CR Base Sheet Fasteners (1.7"), Trufast FM-90 Base Sheet Fasteners or Trufast Twin Loc-Nail Assembled Fasteners fastened 7" o.c. in the 4" wide side laps and 7" o.c. in two staggered rows in the field of the sheet.

Or

SR Base G G MA V mechanically fastened to the lightweight concrete with CR Base Sheet Fasteners (1.7") or Trufast Twin Loc-Nail Assembled Fasteners fastened 7" o.c. in the 4" wide side laps and 7" o.c. in two staggered rows in the field of the sheet.

**Base Ply:** SR MB S21G S adhered in hot asphalt at 20-25 lbs./sq. (Only for use with SR Base G G MA V anchor sheets).  
Or  
SR Ply 4 GS (only for use with SR MB Reflex 39 SBS M FR SBS, SR MB S40P M FR or SR MB Cap 35 G S M FR Reflex) adhered in hot asphalt at 20-25 lbs./sq. (Only for use with SR MB S21G S anchor sheet).

**Membrane:** One or more plies of SR MB S21G S, SR MB S22P S, SR MB S30P S, SR MB Reflex 39 SBS M FR SBS, SR MB S40P M FR or SR MB Cap 35 G S M FR Reflex fully adhered in type III or IV of an approved asphalt at an application rate 20-40 lbs./sq.

Or

One or more plies SR MB S42P S HWLD or SR MB Reflex HWLD applied according to manufacturer's application instructions.

**Surfacing:** **Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.**

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

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



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## LIGHTWEIGHT CONCRETE DECK SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced 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, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gauge attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.
3. For systems where specific lightweight insulating concrete is not referenced, the minimum design mix shall be a minimum of 300 psi.

## GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. 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 side lap 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 lb. f., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lb. f. 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 to 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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