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)

Johns Manville Corporation
717 17th Street
Denver, CO 80202

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: Johns Manville Modified Bitumen Roofing Systems Over 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 renews and revises NOA No. 16-0906.08 and consists of pages 1 through 56.
The submitted documentation was reviewed by Jorge L. Acebo.

MIAMI-DADE COUNTY APPROVED

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Modified Bitumen
Materials:	SBS
Deck Type:	Lightweight Concrete
Maximum Design Pressure:	-290 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
JM BaseGrip SD/SA	36" x 72’	ASTM D4601	Glass reinforced, self-adhering SBS modified bitumen base sheet
DynaBase	39-3/8” x 49’2”	ASTM D 6163	A glass reinforced SBS modified bitumen base sheet.
DynaBase HW	39-3/8” x 49’2”	ASTM D 6163	A glass reinforced SBS modified bitumen base sheet for heat welded applications.
DynaBase PR	39-3/8” x 49’2”	ASTM D6164	A polyester reinforced SBS modified bitumen base sheet.
DynaBase XT	39-3/8" x 49’-2”	ASTM D 6163	A glass reinforced SBS modified bitumen base or inner ply sheet.
DynaFast 180 HW	39-3/8” x 49’2”	ASTM D6164	A polyester reinforced SBS modified bitumen base or inner ply sheet for use in heat weld applications.
DynaFast 180 S	39-3/8” x 49’2”	ASTM D6164	A polyester reinforced SBS modified bitumen base or inner ply sheet.
DynaFast 250 HW	39-3/8” x 32’10”	ASTM D6164	A polyester reinforced SBS modified bitumen base or inner ply sheet for use in heat weld applications.
DynaGlas	39-3/8" x 32’-10"	ASTM D6163	A glass reinforced SBS modified bitumen membrane surfaced with granules.
DynaGlas 30 FR	39-3/8" x 32’-10”	ASTM D6163	A fire resistant, glass reinforced SBS modified bitumen membrane surfaced with granules.
DynaGlas FR	39-3/8" x 32’-10”	ASTM D6163	A fire resistant, glass reinforced SBS modified bitumen membrane surfaced with granules.
DynaGlas FR CR	39-3/8" x 32’-10”;	ASTM D6163	A fire resistant, glass reinforced SBS modified bitumen membrane surfaced with granules and a reflective white coating for use in heat weld applications.
DynaGlas FR CR G	39-3/8" x 32’10”	ASTM D 6163	A fire resistant, glass reinforced SBS modified bitumen membrane surfaced with granules and cool roof coating.
DynaGlas FR XT	39-3/8" x 32’-10”	ASTM D6163	A fire resistant, glass reinforced SBS modified bitumen membrane surfaced with granules.
DynaGrip Base SD/SA	39-3/8" x 65’-7”	ASTM D4601	Glass reinforced, self-adhering SBS modified bitumen base sheet

Product	Dimensions	Test Specification	Product Description
DynaKap FR T1	39-3/8" x 32'-10"	ASTM D6162	A fire resistant, composite reinforced SBS modified bitumen membrane surfaced with granules.
DynaKap FR T1 CR G	39-3/8" x 32'10"	ASTM D6162	A fire resistant, composite reinforced SBS modified bitumen membrane surfaced with granules and cool roof coating.
DynaKap FR T1 HW CR G	39-3/8" x 32'10"	ASTM D6162	A fire resistant, composite reinforced SBS modified bitumen membrane surfaced with granules with cool roof coating for use in heat weld applications.
DynaLastic 180	39-3/8" x 32'-10"	ASTM D6164	A polyester reinforced SBS modified bitumen membrane surfaced with granules.
DynaLastic 180 FR	39-3/8" x 32'-10"	ASTM D6164	A fire resistant, polyester reinforced SBS modified bitumen membrane surfaced with granules.
DynaLastic 180 FR CR	39-3/8" x 32'-10"	ASTM D6164	A fire resistant, polyester reinforced SBS modified bitumen membrane surfaced with granules.
DynaLastic 180 FR CR G	39-3/8" x 32'10"	ASTM D6164	A fire resistant, polyester reinforced SBS modified bitumen membrane surfaced with granules and cool roof coating.
DynaLastic 180 S	39-3/8" x 32'10"	ASTM D6164	A polyester reinforced SBS modified bitumen base or inner ply sheet.
DynaLastic 250 FR	39-3/8" x 32'-10"	ASTM D6164	A fire resistant, polyester reinforced SBS modified bitumen membrane surfaced with granules.
DynaLastic 250 FR CR	39-3/8" x 32'-10"	ASTM D6164	A fire resistant, polyester reinforced SBS modified bitumen membrane surfaced with granules and a reflective white coating.
DynaLastic 250 FR CR G	39-3/8" x 32'10"	ASTM D6164	A fire resistant, polyester reinforced SBS modified bitumen membrane surfaced with granules, cool roof coating and a reflective white coating.
DynaLastic 250 S	39-3/8" x 32'-10"	ASTM D 6164	A polyester reinforced SBS modified bitumen base or inner ply sheet.
DynaMax FR	39-3/8" x 32'-10"	ASTM D6162	A fire resistant, composite reinforced SBS modified bitumen membrane surfaced with granules.
DynaMax FR Plus	39-3/8" x 32'-10"	ASTM D6162	A fire resistant, composite reinforced SBS modified bitumen membrane surfaced with granules.
DynaMax FR HW	39-3/8" x 32'-10"	ASTM D6162	A fire resistant, composite reinforced SBS modified bitumen membrane surfaced with granules.
DynaMax FR HW CR	39-3/8" x 32'-10"	ASTM D6162	A fire resistant, composite reinforced SBS modified bitumen membrane surfaced with granules.

Product	Dimensions	Test Specification	Product Description
DynaMax FR CR	39-3/8" x 32'-10"	ASTM D6162	A fire resistant, composite reinforced SBS modified bitumen membrane surfaced with granules.
DynaMax S	39-3/8" x 32'-10"	ASTM D6162	A composite reinforced SBS modified bitumen base or inner ply sheet.
DynaPly T1	39-3/8" x 32'-10"	ASTM D6162	A composite reinforced SBS modified bitumen base or inner ply sheet.
DynaWeld 180 S	39-3/8" x 32'-10"	ASTM D6162	A polyester reinforced SBS modified bitumen base or inner ply sheet for use in heat weld applications.
DynaWeld 250 S	39-3/8" x 32'-10"	ASTM D6164	A polyester reinforced SBS modified bitumen base or inner ply sheet for use in heat weld applications.
DynaWeld Base	39'-3/8" x 32'-10"	ASTM D6163	A glass reinforced SBS modified bitumen base sheet for heat welded applications.
DynaWeld Cap 180 FR	39-3/8" x 32'-10"	ASTM D6164	A fire resistant, polyester reinforced SBS modified bitumen membrane surfaced with granules for use in heat weld applications.
DynaWeld Cap 180 FR CR	39-3/8" x 32'-10"	ASTM D6164	A fire resistant, polyester reinforced SBS modified bitumen membrane surfaced with granules for use in heat weld applications.
DynaWeld Cap 180 FR CR G	39-3/8" x 32'-10"	ASTM D6164	A fire resistant, polyester reinforced SBS modified bitumen membrane surfaced with granules for use in heat weld applications.
DynaWeld Cap 250	39-3/8" x 32'-10"	ASTM D6164	A polyester reinforced SBS modified bitumen membrane surfaced with granules for use in heat weld applications.
DynaWeld Cap 250 FR	39-3/8" x 32'-10"	ASTM D6164	A fire resistant, polyester reinforced SBS modified bitumen membrane surfaced with granules for use in heat weld applications.
DynaWeld Cap 250 FR CR	39-3/8" x 32'-10"	ASTM D6164	A fire resistant, polyester reinforced SBS modified bitumen membrane surfaced with granules and a reflective white coating for use in heat weld applications.
DynaWeld Cap 250 FR CR G	39-3/8" x 32'10"	ASTM D6164	A fire resistant, polyester reinforced SBS modified bitumen membrane surfaced with granules, cool roof coating and a reflective white coating for use in heat weld applications.
DynaWeld Cap FR	39'-3/8" x 32'-10"	ASTM D6163	A fire resistant, glass reinforced SBS modified bitumen membrane surfaced with granules for use in heat weld applications.
DynaWeld Cap FR XT	39'-3/8" x 32'-10"	ASTM D6163	A fire resistant, polyester reinforced SBS modified bitumen membrane surfaced with granules for use in heat weld applications.
DynaWeld Cap FR CR	39'-3/8" x 32'-10"	ASTM D6163	A fire resistant, polyester reinforced SBS modified bitumen membrane surfaced with granules and a reflective white coating for use in heat weld applications.

Product	Dimensions	Test Specification	Product Description
DynaWeld Cap FR CR G	39-3/8" x 32'10"	ASTM D6163	A fire resistant, polyester reinforced SBS modified bitumen membrane surfaced with granules, cool roof coating and a white reflective coating for use in heat weld applications.
GlasBase Plus	36" x 108'	ASTM D4601	Type II asphalt impregnated and coated glass fiber base sheet for use in conventional and modified bitumen built-up roofing.
GlasKap Plus	36" x 36'	ASTM D3909	A mineral surfaced, asphalt coated, fiberglass cap sheet.
GlasPly IV	36" x 180'	ASTM D2178	Type IV asphalt impregnated glass felt for use in conventional and modified bitumen built-up roofing.
GlasPly Premier	36" x 180'	ASTM D2178	Type VI asphalt impregnated glass felt for use in conventional and modified bitumen built-up roofing.
PermaPly 28	36" x 106'	ASTM D4601	Type II asphalt impregnated and coated glass fiber base sheet for use in conventional and modified bitumen built-up roofing.
Ventsulation Felt	36" x 36'	ASTM D4897	Heavy duty fiber glass base sheet impregnated and coated on both sides with asphalt with or without fine mineral stabilizer. Surfaced on the bottom side with coarse mineral granules embedded in asphaltic coating.
MBR Bonding Adhesive	N/A	proprietary	A two component urethane cold application adhesive.
MBR Cold Application Adhesive	5, 55, and 350 gal.	ASTM D3019 Type III	One part, elastomeric cold application adhesive.
JM Roofing System Urethane Adhesive	Various	Proprietary	A two-component, cold-applied adhesive
JM Two Part Urethane Insulation Adhesive	Various	Proprietary	A two-component, cold-applied adhesive
JM Two-Part UIA	Various	Proprietary	A two-component, cold-applied adhesive
JM Two-Part Urethane Insulation Adhesive Canister	Various	Proprietary	Self-contained two-part, low-rise foam adhesive
JM Two-Part UIA Canister	Various	Proprietary	Self-contained two-part, low-rise foam adhesive
JM MBR RA Membrane Adhesive	Various	Proprietary	A two-component, cold-applied adhesive
JM One-Step Foamable Adhesive	N/A	Proprietary	A two-part urethane insulation adhesive
Bestile Industrial Roof Cement	various	ASTM D4586 Type I	A trowel grade, cutback bitumen flashing grade cement mixture including inorganic fibers and mineral stabilizers.
USII RetroDrain	various	N/A	One piece, aluminum fabricated drain for retrofit applications.

Product	Dimensions	Test Specification	Product Description
Hercules RetroDrain	various	N/A	Cast aluminum, heavy-duty drain for retrofit applications.
DynaTred & DynaTred Plus Roof Walkway	various	N/A	Preformed, skid-resistant boards.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI	Polyisocyanurate Insulation.	Johns Manville
ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI	Isocyanurate Insulation with glass reinforced facers	Johns Manville
DensDeck Prime	Silicon treated gypsum	Georgia Pacific Gypsum, LLC
JM SECUROCK Gypsum-Fiber Roof Board	Rigid, gypsum-based board stock	Johns Manville

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Lightweight Concrete (LWC) CR Base Fastener	Galvanized double spreading leg fastener for securing base sheets to lightweight insulating concrete.	1.2” or 1.7” leg length; 2.7” dia. Plate	Johns Manville
2.	Trufast Twin Loc Coiled Batten Bar	Oval pre-punched metal batten bar	1” x 100’ coil	Altenloh, Brink & Co. U.S., Inc.
3.	High Load Fasteners	Insulation and membrane fastener for steel, wood or concrete.	#15 x 14" Max. Length #3 Phillips head	Johns Manville
4.	High Load Plate	Steel Seam plate with reinforcing ribs and eyehooks.	2-3/8” round	Johns Manville
5.	UltraFast Square Metal Plates	Galvalume AZ55 steel plate	3” square	Johns Manville
6.	Trufast Twin Loc-Nail Batten Fastener	Base sheet fastener *with and without* integrated Plate.	2.7” dia. Plate	Altenloh, Brink & Co. U.S., Inc.

EVIDENCE SUBMITTED:

Test Agency/Identifier	Name	Report	Date
UL LLC	R10167	UL 790	10/21/20
FM Approvals	3007148	FM 4450	04/19/00
	3023458	FM 4450	07/18/06
	3036559	FM 4470	10/02/09
	3037222	FM 4470	10/02/09
	3037540	FM 4450	10/20/10
	3053754	FM 4470	03/04/15
	3063554	FM 4470	02/15/18
Trinity|ERD	J5260.03.07	TAS 114 (J)	06/06/07
	J34190.03.11	TAS 114 (J)	04/04/11
PRI Construction Materials Technologies, LLC	JMC-107-02-01.7	ASTM D903/D1876/D5147 TAS 114(C)/TAS 117 A & B	03/31/16
	JMC-131-02-01	TAS 114 (D)	04/17/13
	JMC-132-02-01	TAS 114 (D)	04/17/13
	JMC-132-02-02	TAS 114 (D)	07/01/13
	JMC-222-02-02	TAS 114 (J)	04/22/15
	JMC-222-02-04	TAS 114 (J)	08/14/15
	JMC-242-02-02	TAS 114(D)	11/18/15
	JMC-243-02-01	ASTM D5147/D4798	02/29/16
	JMC-245-02-01	TAS 114(J)	03/29/16
	JMC-245-02-02	TAS 114(D)	03/29/16
	JMC-267-02-02.1	TAS 114(D)	04/11/16
	JMC-267-02-01	TAS 114(J)	03/31/16
	ADCO-001-02-01	Physical Properties	06/16/13
	507T0062	FM 4474/TAS 114(D)	04/23/20
	507T0061	FM 4474/TAS 114(D)	04/23/20
	507T0065	FM 4474/TAS 114(D)	04/23/20
	507T0069	ASTM D6164	05/20/20
	507T0079	ASTM D3909	10/01/20
Atlantic & Caribbean Roof Consulting, LLC	ACRC 20-001	TAS 114 (J)	07/14/20
	ACRC 20-002	TAS 114 (D)	07/14/20

DECK STRESS ANALYSIS CALCULATIONS/REPORTS

Engineer/Agency	Identifier	Assemblies	Date
Zachary R. Priest, P.E.	Signed/Sealed Calculations	E(3), E(6), E(7), E(8), E(9), E(10)	04/25/16
		E(1), E(2), E(4), E(5), E(12)	05/18/16
Zachary R. Priest, P.E.	Signed/Sealed Calculations	E(19)	03/29/16
		E(11)	03/31/16

APPROVED ASSEMBLIES

Membrane Type: SBS

Deck Type 3I: Lightweight Concrete, Insulated

Deck Description: Minimum 340 psi Celcore MF with Celcore HS Rheology Modifying Admixture over primed concrete deck or min. 18-22 ga. Steel deck.

System Type A(1): Insulation adhered to deck in insulation adhesive. Membrane is subsequently fully adhered.

All General and System limitations apply.

Structural Deck: Structural Concrete deck primed with ASTM D41 primer.
Or
Minimum 22 ga., Grade 33, Type B, steel deck treated with Celcore S-1 broom applied to the deck in a continuous film prior to the placement of the LWIC

Vapor Barrier: **(over concrete deck only)** DynaWeld Cap 180 FR, or DynaWeld 180 S torch applied to structural concrete deck.

LWC Deck: Minimum 340 psi Celcore MF with Celcore HS Rheology Modifying Admixture with minimum 1/4" slurry coat; minimum 1" EPS board; minimum 2" top coat with PVA curing compound.

One or more layers of the following insulations:

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI		
Minimum 1.5" thick	**N/A**	**N/A**

Note: All layers of insulation shall be adhered to deck with JM Roofing System Urethane Adhesive, JM One-Step Foamable Adhesive, or JM Two Part Urethane Insulation Adhesive, JM Two Part UIA, JM Two-Part Urethane Insulation Adhesive Canister, JM Two-Part UIA Canister applied in 3/4 – 1" wide beads spaced maximum 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaLastic 250 S, or DynaMax S fully bonded with MBR Bonding Adhesive or MBR Cold Application Adhesive at a rate of 1.5 gal./sq.
Or
One ply of DynaGrip Base SD/SA or JM BaseGrip SD/SA self-adhered with a cap or additional plies applied in hot asphalt by torch adhering.

Ply Sheet (Optional): One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaLastic 250 S, or DynaMax S fully bonded with MBR Bonding Adhesive or MBR Cold Application Adhesive at a rate of 1.5 gal./sq. or asphalt applied in the EVT range at a rate of 20-40 lbs./sq.
Or
One or more plies of DynaWeld Base, DynaBase HW, DynaWeld 180 S, DynaFast 180 HW, DynaWeld 250 S, or DynaFast 250 HW fully bonded by torch adhering.

Membrane:	One ply of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully bonded with MBR Bonding Adhesive or MBR Cold Application Adhesive at a rate of 1.5 gal./sq. or asphalt applied in the EVT range at a rate of 20-40 lbs./sq. Or One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering.
Maximum Design Pressure:	-65.5 psf. (See General Limitation #9)

Membrane Type: SBS

Deck Type 3I: Lightweight Concrete, Insulated

Deck Description: Minimum 310 psi Elastizell cellular lightweight concrete with minimum 1/4" slurry coat, minimum 1" EPS holey board, and minimum 2" top coat cast over structural concrete or Minimum 22 ga., Grade 33, Type B steel deck.

System Type A(2): Insulation adhered to deck in insulation adhesive. Membrane is subsequently fully adhered.

All General and System limitations apply.

One or more layers of the following insulations:

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI		
Minimum 1.5" thick	**N/A**	**N/A**

Note: All layers of insulation shall be adhered to deck with JM Roofing System Urethane Adhesive, JM One-Step Foamable Adhesive, or JM Two Part Urethane Insulation Adhesive, JM Two Part UIA, JM Two-Part Urethane Insulation Adhesive Canister, JM Two-Part UIA Canister applied in 3/4 – 1" wide beads spaced maximum 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaLastic 250 S, or DynaMax S fully bonded with MBR Bonding Adhesive or MBR Cold Application Adhesive at a rate of 1.5 gal./sq.
Or
One ply of DynaGrip Base SD/SA or JM BaseGrip SD/SA self-adhered with a cap or additional plies applied in hot asphalt by torch adhering.

Ply Sheet (Optional): One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaLastic 250 S, or DynaMax S fully bonded with MBR Bonding Adhesive or MBR Cold Application Adhesive at a rate of 1.5 gal./sq. or asphalt applied in the EVT range at a rate of 20-40 lbs./sq.
Or
One or more plies of DynaWeld Base, DynaBase HW, DynaWeld 180 S, DynaFast 180 HW, DynaWeld 250 S, or DynaFast 250 HW fully bonded by torch adhering.

Membrane:	One ply of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully bonded with MBR Bonding Adhesive or MBR Cold Application Adhesive at a rate of 1.5 gal./sq. or asphalt applied in the EVT range at a rate of 20-40 lbs./sq. Or One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering.
Maximum Design Pressure:	-130 psf. (See General Limitation #9) -90 psf. w/ DynaGrip Base or JM BaseGrip SD/SA (See General Limitation #9)

Membrane Type: SBS

Deck Type 3I: Lightweight Concrete, Insulated

Deck Description: Min. 300 psi Generic Cellular Lightweight Concrete over structural concrete or Minimum 22 ga., Grade 33, Type B steel deck.*Lightweight should record a Minimum Characteristic Resistance Force (MCRF) of 131 lbf when tested with Lightweight Concrete (LWC) CR Base Fasteners in accordance with TAS 105.

System Type A(3): Insulation adhered to deck in insulation adhesive. Membrane is subsequently fully adhered.

All General and System limitations apply.

One or more layers of the following insulations:

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI		
Minimum 1.5" thick	**N/A**	**N/A**

Note: All layers of insulation shall be adhered to deck with JM Two Part Urethane Insulation Adhesive, JM Two Part UIA, JM Two-Part Urethane Insulation Adhesive Canister, JM Two-Part UIA Canister, JM Roofing System Urethane Adhesive, or JM One-Step Foamable Adhesive applied 3/4 – 1" wide beads spaced maximum 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaLastic 250 S, or DynaMax S fully bonded with MBR Bonding Adhesive or MBR Cold Application Adhesive at a rate of 1.5 gal./sq.
Or
One ply of DynaGrip Base SD/SA or JM BaseGrip SD/SA self-adhered with a cap or additional plies applied in hot asphalt by torch adhering.

Ply Sheet (Optional): One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaLastic 250 S, or DynaMax S fully bonded with MBR Bonding Adhesive or MBR Cold Application Adhesive at a rate of 1.5 gal./sq. or asphalt applied in the EVT range at a rate of 20-40 lbs./sq.
Or
One or more plies of DynaWeld Base, DynaBase HW, DynaWeld 180 S, DynaFast 180 HW, DynaWeld 250 S, or DynaFast 250 HW fully bonded by torch adhering.

Membrane:	One ply of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully bonded with MBR Bonding Adhesive or MBR Cold Application Adhesive at a rate of 1.5 gal./sq. or asphalt applied in the EVT range at a rate of 20-40 lbs./sq. Or One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering.
Maximum Design Pressure:	-67.5 psf. (See General Limitation #9)

Membrane Type: SBS

Deck Type 3I: Lightweight Concrete, Insulated

Deck Description: Minimum 500 psi Celcore MF with Celcore HS Rheology Modifying Admixture over primed Structural Concrete with optional vapor barrier or Cementitious Wood Fiber deck.

System Type A(4): Insulation adhered to deck in insulation adhesive. Membrane is subsequently fully adhered.

All General and System limitations apply.

Structural Deck: Structural Concrete deck primed with ASTM D41 primer.
Or
Cementitious Wood Fiber deck.

Vapor Barrier: **(Optional – over concrete deck only)** DynaBase HW torch applied to structural concrete deck.

LWC Deck: Minimum 500 psi Celcore MF with Celcore HS Rheology Modifying Admixture with minimum 1/4" slurry coat; minimum 1" EPS board; minimum 2" top coat with PVA curing compound.

One or more layers of the following insulations:

Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI		
Minimum 1.5" thick	**N/A**	**N/A**

Note: All layers of insulation shall be adhered to deck with JM Roofing System Urethane Adhesive, JM One-Step Foamable Adhesive, or JM Two Part Urethane Insulation Adhesive, JM Two Part UIA, JM Two-Part Urethane Insulation Adhesive Canister, JM Two-Part UIA Canister applied in 3/4 – 1" wide beads spaced maximum 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaLastic 250 S, or DynaMax S fully bonded with MBR Bonding Adhesive or MBR Cold Application Adhesive at a rate of 1.5 gal./sq.
Or
One ply of DynaGrip Base SD/SA or JM BaseGrip SD/SA self-adhered with a cap or additional plies applied in hot asphalt by torch adhering.

Ply Sheet (Optional): One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaLastic 250 S, or DynaMax S fully bonded with MBR Bonding Adhesive or MBR Cold Application Adhesive at a rate of 1.5 gal./sq. or asphalt applied in the EVT range at a rate of 20-40 lbs./sq.
Or
One or more plies of DynaWeld Base, DynaBase HW, DynaWeld 180 S, DynaFast 180 HW, DynaWeld 250 S, or DynaFast 250 HW fully bonded by torch adhering.

Membrane:	One ply of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully bonded with MBR Bonding Adhesive or MBR Cold Application Adhesive at a rate of 1.5 gal./sq. or asphalt applied in the EVT range at a rate of 20-40 lbs./sq. Or One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering.
Maximum Design Pressure:	-65.5 psf. (See General Limitation #9)

Membrane Type:	SBS
Deck Type 4:	Lightweight Concrete, Non-insulated
Deck Description:	Celcore Lightweight Concrete
System Type E(1):	Base sheet mechanically fastened.
Deck:	Min. 270 psi Celcore MF; Min. 1/8" slurry coat; Min. 1" EPS board; Min. 2" top coating with PVA curing compound cast over Structural Concrete or Min. 22 ga. Type B, Grade 33 steel deck shall be secured 6" o.c. to structural supports spaced a maximum of 5 ft. o.c. with Tek/5 Screws spaced 6 in. o.c. Side laps attached with Tek/1 screws spaced 12 in. o.c. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**

All General and System Limitations apply.

Base Sheet:	One ply of DynaWeld Base fastened to the deck as described below:
Fastening:	Fasten base sheet with 1.7" Lightweight Concrete (LWC) CR Base Fastener at the minimum 4" side lap 7" o.c. and 7" o.c. in two staggered rows in the center of the sheet.
Ply Sheet:	(Optional) One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaLastic 250 S, or DynaMax S fully bonded with MBR Bonding Adhesive or MBR Cold Application Adhesive at a rate of 1.5 gal./sq. or asphalt applied in the EVT range at a rate of 20-40 lbs./sq. Or One or more plies of DynaWeld Base, DynaBase HW, DynaWeld 180 S, DynaFast 180 HW, DynaWeld 250 S, or DynaFast 250 HW fully bonded by torch adhering.
Membrane:	One ply of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully bonded with MBR Bonding Adhesive or MBR Cold Application Adhesive at a rate of 1.5 gal./sq. or asphalt applied in the EVT range at a rate of 20-40 lbs./sq. Or One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering.
Maximum Design Pressure:	-45 psf. (See General Limitation #7)

Membrane Type:	SBS
Deck Type 4:	Lightweight Concrete, Non-insulated
Deck Description:	Celcore Lightweight Concrete
System Type E(2):	Base sheet mechanically fastened.
Deck:	Min. 320 psi Celcore MF over primed Structural Concrete or Min. 22 ga. Grade 33 steel deck. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**

All General and System Limitations apply.

Structural Deck:	Structural Concrete prepared with ASTM D41 primer. Or Min. 22 ga. Type B, Grade 33 steel deck shall be secured 6" o.c. to structural supports spaced a maximum of 5 ft. o.c. with Tek/5 Screws spaced 6 in. o.c. Side laps attached with Tek/1 screws spaced 12 in. o.c.
Vapor Barrier:	**(over concrete deck only)** DynaWeld Cap 180 FR, or DynaWeld 180 S torch applied to structural concrete deck.
LWC Deck:	Min. 320 psi Celcore MF; Min. 1/8" slurry coat; Min. 1" EPS board; Min. 2" top coating with PVA curing compound.
Base Sheet:	One ply of DynaWeld Base fastened to the deck as described below:
Fastening:	Fasten base sheet with 1.7" Lightweight Concrete (LWC) CR Base Fasteners at the minimum 4" side lap 7" o.c. and 7" o.c. in three staggered rows in the center of the sheet.
Ply Sheet (Optional):	One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaLastic 250 S, or DynaMax S fully bonded with MBR Bonding Adhesive or MBR Cold Application Adhesive at a rate of 1.5 gal./sq. or asphalt applied in the EVT range at a rate of 20-40 lbs./sq. Or One or more plies of DynaWeld Base, DynaBase HW, DynaWeld 180 S, DynaFast 180 HW, DynaWeld 250 S, or DynaFast 250 HW fully bonded by torch adhering.
Membrane:	One ply of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully bonded with MBR Bonding Adhesive or MBR Cold Application Adhesive at a rate of 1.5 gal./sq. or asphalt applied in the EVT range at a rate of 20-40 lbs./sq. Or One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering.
Maximum Design Pressure:	-52.5 psf. (See General Limitation #7)

Membrane Type: SBS

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Celcore Lightweight Concrete

System Type E(3): Base sheet mechanically fastened.

Deck: Min. 500 psi Celcore MF with Celcore HS Rheology Modifying Admixture; over Cementitious Wood Fiber, Structural Concrete, or Min. 22 ga. Grade 33 steel deck. **This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**

All General and System Limitations apply.

Structural Deck: Cementitious Wood Fiber
Or
Structural Concrete
Or
Min. 22 ga. Type B, Grade 33 steel deck secured 6" o.c. to structural supports spaced a maximum of 5 ft. o.c. with 5/8" puddle welds spaced 6 in. o.c. Side laps attached with ¼" #14 x 7/8" HWH SD screws with ½" washer spaced 15 in. o.c.

Vapor Barrier: **(Over structural concrete only; Optional)** DynaBase HW, DynaWeld Cap 180 FR, or DynaWeld 180 S torch applied to structural concrete deck prepared with ASTM D41 primer.

LWC Deck: Min. 500 psi Celcore MF with Celcore HS Rheology Modifying Admixture; Min. 1/8" slurry coat; Min. 1" EPS board; Min. 2" top coating with PVA curing compound.

Base Sheet: One ply of DynaFast 180 HW, DynaFast 180 S, or DynaFast 250 HW mechanically fastened with 1.8" Trufast Twin Loc-Nail Batten Fastener and Trufast Twin Loc Coiled Batten Bar spaced 6" o.c. in the center of the minimum 4" torch welded side laps.

Option 1:

Ply Sheet: (Optional) One or more plies of DynaFast 180 HW, DynaWeld Cap 250 S or DynaFast 250 heat welded while maintaining minimum 4" side laps and 6" end laps.

Membrane: One or more plies of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR heat welded while maintaining 4" side laps and 6" end laps.

Option 2 (not over DynaFast 180 HW or 250 HW):

Ply Sheet:	(Optional) One or more plies of DynaFast 180 S, DynaPly T1 or DynaLastic 250 S adhered in MBR Cold Application Adhesive at a rate of 1.5-2 gal./sq. or approved asphalt with the EVT range at a rate of 20-40 lbs./sq.
Membrane:	One or more plies of DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus adhered in MBR Cold Application Adhesive at a rate of 1.5-2 gal./sq. or approved asphalt with the EVT range at a rate of 20-40 lbs./sq. while maintaining 4" side laps and 6" end laps.
Maximum Design Pressure:	-60 psf. (See General Limitation #7)

Membrane Type: SBS

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Celcore Lightweight Concrete

System Type E(4): Base sheet mechanically fastened.

Deck: Min. 350 psi Celcore MF with Celcore HS Rheology Modifying Admixture over primed Structural Concrete or Min. 22 ga. Grade 33 steel deck
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

All General and System Limitations apply.

Structural Deck: Structural Concrete prepared with ASTM D41 primer.
Or
Min. 22 ga. Type B, Grade 33 steel deck secured 6" o.c. to structural supports spaced a maximum of 5 ft. o.c. with Tek/5 screws spaced 6 in. o.c. Side laps attached with Tek/1 screws spaced 20 in. o.c.

Vapor Barrier: **(over concrete deck only)** DynaWeld Cap 180 FR, or DynaWeld 180 S torch applied to structural concrete deck.

LWC Deck: Min. 350 psi Celcore MF with Celcore HS Rheology Modifying Admixture; Min. 1/8" slurry coat; Min. 1" EPS board; Min. 2" top coating with PVA curing compound.

Base Sheet: One ply of PermaPly 28 mechanically fastened with 1.7" Lightweight Concrete (LWC) CR Base Fastener spaced 6" o.c. in the center of the minimum 4" side laps and 6" o.c. in three staggered rows in the center of the sheet.

Ply Sheet: One or more plies of DynaBase, DynaBase PR, DynaPly T1, DynaBase XT, DynaMax S, DynaFast 180 S, DynaLastic 180 S or DynaLastic 250 S fully adhered in MBR Bonding Adhesive or MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq.
Or
One or more plies of GlasPly IV, GlasPly Premier, DynaBase, DynaBase PR, DynaPly T1, DynaBase XT, DynaMax S, DynaFast 180 S, DynaLastic 180 S or DynaLastic 250 S fully adhered in approved asphalt with the EVT range at a rate of 20-40 lbs./sq.
Or
One or more plies of DynaWeld Base, DynaBase HW, DynaWeld 180 S, DynaFast 180 HW, DynaWeld 250 S, or DynaFast 250 HW fully bonded by torch adhering.
Or
One ply of DynaGrip Base SD/SA self-adhered with a cap or additional plies applied in hot asphalt by torch adhering.

Membrane:	One or more plies of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully adhered in MBR Bonding Adhesive or MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq. or approved asphalt with the EVT range at a rate of 20-40 lbs./sq. while maintaining 4" side laps and 6" end laps. Or (Requires to be used with a Modified Bitumen Ply Sheet listed above.) GlasKap or GlasKap Plus adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. Or One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering.
Surfacing:	(Optional) Install one of the following: 1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq. 2. (Optional with FR membranes) Henry 280 in two coats applied at a rate of 1.0 gal./sq./coat.
Maximum Design Pressure:	-60 psf. (See General Limitation #7)

Membrane Type: SBS

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Min. 440 psi Generic Cellular Lightweight Concrete *Lightweight should record a Minimum Characteristic Resistance Force (MCRF) of 133 lbf when tested with Lightweight Concrete (LWC) CR Base Fasteners in accordance with TAS 105.

System Type E(5): Base sheet mechanically fastened.

Deck: Min. 1" EPS board; placed in minimum ¼" slurry, followed by minimum 2" topcoat cast over Structural Concrete or Minimum 22 ga. Type B, Grade 33 steel deck shall be secured 6" o.c. to structural supports spaced a maximum of 5 ft. o.c. with Tek/5 screws spaced 6 in. o.c. Side laps attached with Tek/1 screws spaced 20 in. o.c.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

All General and System Limitations apply.

Base Sheet: One ply of PermaPly 28 mechanically fastened with 1.7" Lightweight Concrete (LWC) CR Base Fastener spaced 9" o.c. in the center of the minimum 4" side laps and 9" o.c in three staggered rows in the center of the sheet.

Ply Sheet: One or more plies of DynaBase, DynaBase PR, DynaPly T1, DynaBase XT, DynaMax S, DynaFast 180 S, DynaLastic 180 S or DynaLastic 250 S fully adhered in MBR Bonding Adhesive or MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq.
Or
One or more plies of GlasPly IV, GlasPly Premier, DynaBase, DynaBase PR, DynaPly T1, DynaBase XT, DynaMax S, DynaFast 180 S, DynaLastic 180 S or DynaLastic 250 S fully adhered in approved asphalt with the EVT range at a rate of 20-40 lbs./sq.
Or
One or more plies of DynaWeld Base, DynaBase HW, DynaWeld 180 S, DynaFast 180 HW, DynaWeld 250 S, or DynaFast 250 HW fully bonded by torch adhering.
Or
One ply of DynaGrip Base SD/SA self-adhered with a cap or additional plies applied in hot asphalt by torch adhering.

Membrane:	One or more plies of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully adhered in MBR Bonding Adhesive or MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq. or approved asphalt with the EVT range at a rate of 20-40 lbs./sq. while maintaining 4" side laps and 6" end laps. Or (Requires to be used with a Modified Bitumen Ply Sheet listed above.) GlasKap or GlasKap Plus adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. Or One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering.
Surfacing:	(Optional) Install one of the following: 1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq. 2. (Optional with FR membranes) Henry 280 in two coats applied at a rate of 1.0 gal./sq./coat.
Maximum Design Pressure:	-60 psf. (See General Limitation #7)

Membrane Type: SBS

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Celcore Lightweight Concrete

System Type E(6): Base sheet mechanically fastened.

Deck: Minimum 440 psi Celcore MF with Celcore HS Rheology Modifying Admixture over Structural Concrete or Minimum 22 ga. Grade 33 steel deck treated with Celcore S-1.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

All General and System limitations apply.

Structural Deck: Structural Concrete prepared with ASTM D41 primer.
Or
Min. 22 ga. Type B, Grade 33 steel deck treated with Celcore S-1 secured with 5/8" diameter puddle welds at each flute with structural supports spaced a maximum 5 ft. o.c. Side laps attached with ¼" #14 x 7/8" HWH screws spaced 12" o.c.

Vapor Barrier: **(over concrete deck only)** DynaWeld Cap 180 FR, or DynaWeld 180 S torch applied to structural concrete deck.

LWC Deck: Min. 440 psi Celcore MF with Celcore HS Rheology Modifying Admixture; Min. 1/4" slurry coat; Min. 1" EPS board; Min. 2" top coating with PVA curing compound.

Base Sheet: **(Option 1):** One ply of DynaFast 180 HW or DynaFast 250 HW installed with Trufast Twin Loc Coiled Batten Bar and 1.8" Trufast Twin Loc-Nail Batten Fastener fastened 6" o.c. within the torch adhered 4" side laps.
(Option 2): One ply of DynaFast 180 S Trufast Twin Loc Coiled Batten Bar and 1.8" Trufast Twin Loc-Nail Batten Fastener fastened 6" o.c. within the torch adhered 4" side laps.

Ply Sheet (Optional): **(Option 1)** One or more plies of DynaFast 180 HW, DynaFast 250 HW, or DynaWeld 250 S torch adhered.
(Option 2 – only over DynaFast 180 S) DynaFast 180 S, DynaPly T1, DynaLastic 180 S, or DynaLastic 250 S, fully adhered in JM MBR Cold Application Adhesive applied at a rate of 50 – 70 ft^2 / gal.

Membrane:	**(Option 1)** DynaWeld Cap, DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR torch adhered with 3-inch side laps. **(Option 2 – only over Base Sheet Option 2 or Ply Sheet Option 2)** DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully adhered in JM MBR Cold Application Adhesive applied at a rate of 50 – 70 ft^2 / gal. with 3-inch side laps.
Maximum Design Pressure:	-52.5 psf. (See General Limitation #7.)

Membrane Type: SBS

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Celcore Lightweight Concrete

System Type E(7): Base sheet mechanically fastened.

Deck: Minimum 400 psi Celcore MF with Celcore HS Rheology Modifying Admixture over Structural Concrete or Minimum 22 ga., Grade 33steel deck treated with Celcore S-1.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

All General and System limitations apply.

Structural Deck: Structural Concrete prepared with ASTM D41 primer.
Or
Min. 22 ga. Type B, Grade 33 steel deck treated with Celcore S-1 secured with 5/8" diameter puddle welds at each flute with structural supports spaced a maximum 5 ft. o.c. Side laps attached with ¼" #14 x 7/8" HWH screws spaced 12" o.c.

Vapor Barrier: **(over concrete deck only)** DynaWeld Cap 180 FR, or DynaWeld 180 S torch applied to structural concrete deck.

LWC Deck: Min. 400 psi Celcore MF with Celcore HS Rheology Modifying Admixture; Min. 1/4" slurry coat; Min. 1" EPS board; Min. 2" top coating with PVA curing compound.

Base Sheet: **(Option 1)** One ply of GlasBase Plus, PermaPly 28 or Ventsulation Felt with 4" laps installed with 1.7" Lightweight Concrete (LWC) CR Base Fastener fastened 12" o.c. in the 4" lap and 12" o.c. in three, equally spaced staggered rows in the field of the roll.

(Option 2) One ply of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaMax S, or DynaLastic 250 S with 4" laps installed with 1.7" Lightweight Concrete (LWC) CR Base Fastener fastened 12" o.c. in the 4" lap and 12" o.c. in three, equally spaced staggered rows in the field of the roll.

Ply Sheet: One or more plies of DynaBase, DynaBase PR, DynaPly T1, DynaBase XT, DynaMax S, DynaFast 180 S, DynaLastic 180 S or DynaLastic 250 S fully adhered in MBR Bonding Adhesive at an application rate of 1.5 – 2.0 gal./sq.
Or
Over SBS base sheets only, one or more plies of DynaBase, DynaBase PR, DynaPly T1, DynaBase XT, DynaMax S, DynaFast 180 S, DynaLastic 180 S or DynaLastic 250 S MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq.
Or
Over PermaPly 28 only, One or more plies of GlasPly IV, GlasPly Premier, DynaBase, DynaBase PR, DynaPly T1, DynaBase XT, DynaMax S, DynaFast 180 S, DynaLastic 180 S or DynaLastic 250 S fully adhered in approved asphalt with the EVT range at a rate of 20-40 lbs./sq.
Or
One or more plies of DynaWeld Base, DynaBase HW, DynaWeld 180 S, DynaFast 180 HW, DynaWeld 250 S, or DynaFast 250 HW fully bonded by torch adhering.

Or
Over PermaPly 28 only, one ply of DynaGrip Base SD/SA self-adhered with a cap or additional plies applied in hot asphalt by torch adhering.

Membrane: One or more plies of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully adhered in MBR Bonding Adhesive or MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq. or approved asphalt with the EVT range at a rate of 20-40 lbs./sq. while maintaining 4" side laps and 6" end laps.
Or
(Requires to be used with a Modified Bitumen Ply Sheet listed above.) GlasKap or GlasKap Plus adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Or
One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering.

Surfacing: (Optional) Install one of the following:
1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq.
2. (Optional with FR membranes) Henry 280 in two coats applied at a rate of 1.0 gal./sq./coat.

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

Membrane Type: SBS

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Elastizell Lightweight Concrete

System Type E(8): Base sheet mechanically fastened.

Deck: Min. 450 psi Elastizell cellular lightweight concrete. Min. 1/8" slurry coat; Min. 1" EPS board; Min. 2" top coat, cast over Structural Concrete or min. 22 ga. Type B, Grade 33 steel deck secured with 5/8" diameter puddle welds at each flute with structural supports spaced a maximum 5 ft. o.c. Side laps attached with ¼" #14 x 7/8" HWH screws spaced 12" o.c.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

All General and System Limitations apply.

Base Sheet: One ply of DynaFast 180 HW, DynaFast 180 S, or DynaFast 250 HW mechanically fastened with High Load Fasteners and High Load Plates spaced 12" o.c. in the center of the minimum 5" heat welded side laps.

Ply Sheet: **(Option 1- only over DynaFast 180 S)** One or more plies of DynaFast 180 S, DynaPly T1, or DynaLastic 250 S adhered in JM MBR Cold Application Adhesive applied at a rate of 50 – 70 ft^2 / gal.
(Option 2 – only over DynaBase) DynaFast 180 HW, DynaWeld 250 S, or DynaFast 180 HW torch adhered.

Membrane: **(Option 1 – not over DynaFast 180 HW or 250 HW)** One or more plies of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus with 4" side laps adhered in JM MBR Cold Application Adhesive applied at a rate of 50 – 70 ft2/ gal.
(Option 2 - not over DynaFast 180 HW or 250 HW) One or more plies of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus with 4" side laps adhered in ASTM D 312, Type IV asphalt applied at a rate of 20 – 40 lbs./sq.
(Option 3) DynaWeld Cap, DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR with 4" side laps torch adhered.

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

Membrane Type: SBS

Deck Type 7: Lightweight Concrete, Non-insulated

Deck Description: Elastizell Lightweight Concrete

System Type E(9): Base sheet mechanically fastened.

Deck: Min. 450 psi Elastizell cellular lightweight concrete. Min. 1/4" slurry coat; Min. 1" EPS board; Min. 2" top coat, cast over Structural Concrete or Min. 22 ga. Type B, Grade 33 steel deck secured with 5/8" diameter puddle welds at each flute with structural supports spaced a maximum 5 ft. o.c. Side laps attached with ¼" #14 x 7/8" HWH screws spaced 12" o.c.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

All General and System limitations apply.

Base Sheet: One ply of PermaPly 28, GlasBase Plus, DynaBase, DynaBase PR, DynaBase XT or Ventsulation Felt mechanically fastened with 1.7" Lightweight Concrete (LWC) CR Base Fastener spaced 7" o.c. in the 4" lap and 7" o.c. in the center in two (2) equally spaced staggered rows in the field of the roll.

Ply Sheet: **(Option 1- only over DynaBase)** One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaMax S, or DynaLastic 250 S adhered in JM MBR Cold Application Adhesive applied at a rate of 50 – 70 ft2 / gal.
(Option 2) One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaMax S, or DynaLastic 250 S adhered in JM MBR Bonding Adhesive applied at a rate of 50 – 70 ft2 / gal.
(Option 3) One or more plies of DynaWeld Base, DynaBase HW, DynaWeld 180 S, DynaFast 180 HW (cap must be torched), DynaWeld 250 S, or DynaFast 250 HW (cap must be torched).
(Option 4 – only over PermaPly 28) One or more plies of GlasPly IV, GlasPly Premier, DynaBase, DynaBase PR, DynaPly T1, DynaBase XT, DynaMax S, DynaFast 180 S, DynaLastic 180 S or DynaLastic 250 S fully adhered in approved asphalt with the EVT range at a rate of 20-40 lbs./sq.
(Option 5 – only over PermaPly 28) One ply of DynaGrip Base SD/SA self-adhered with a cap or additional plies applied in hot asphalt by torch adhering.

Membrane: One or more plies of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully adhered in MBR Bonding Adhesive or MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq. or approved asphalt with the EVT range at a rate of 20-40 lbs./sq. while maintaining 4" side laps and 6" end laps.
Or
(Requires to be used with a Modified Bitumen Ply Sheet listed above.)
GlasKap or GlasKap Plus adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Or

One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering.

Surfacing: (Optional) Install one of the following:

1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq.
2. (Optional with FR membranes) Henry 280 in two coats applied at a rate of 1.0 gal./sq./coat.

Maximum Design Pressure: -67.5 psf. with DynaGrip Base SD/SA (See General Limitation #7)
-75 psf. (See General Limitation #7)

Membrane Type: SBS

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Celcore Lightweight Concrete

System Type E(10): Base sheet mechanically fastened.

Deck: Min. 440 psi cellular lightweight Celcore MF with Celcore HS Rheology Modifying Ad mixture. over Structural Concrete or Minimum 22 ga., Grade 33 steel deck treated with Celcore S-1.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

All General and System limitations apply.

Structural Deck: Structural Concrete prepared with ASTM D41 primer.
Or
Min. 22 ga. Type B, Grade 33 steel deck treated with Celcore S-1 secured with 5/8" diameter puddle welds at each flute with structural supports spaced a maximum 5 ft. o.c. Side laps attached with ¼" #14 x 7/8" HWH screws spaced 12" o.c.

Vapor Barrier: **(over concrete deck only)** DynaWeld Cap 180 FR, or DynaWeld 180 S torch applied to structural concrete deck.

LWC Deck: Min. 440 psi cellular lightweight Celcore MF with Celcore HS Rheology Modifying Ad mixture. Min. 1/4" slurry coat; Min. 1" EPS board; Min. 2" top coat.

Base Sheet: One ply of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaMax S, or DynaLastic 250 S mechanically fastened with 1.7" Lightweight Concrete (LWC) CR Base Fastener spaced 12" o.c. in the 4" lap and 12" o.c. in the field of the roll in two (2) equally spaced staggered rows in the field.

Ply Sheet: One or more plies of DynaBase, DynaBase PR, DynaPly T1, DynaBase XT, DynaMax S, DynaFast 180 S, DynaLastic 180 S or DynaLastic 250 S fully adhered in MBR Bonding Adhesive or MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq. or in approved asphalt with the EVT range at a rate of 20-40 lbs./sq.
Or
One or more plies of DynaWeld Base, DynaBase HW, DynaWeld 180 S, DynaFast 180 HW, DynaWeld 250 S, or DynaFast 250 HW torch adhered with 4" side laps.

Membrane: One or more plies of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully adhered in MBR Bonding Adhesive or MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq. or approved asphalt with the EVT range at a rate of 20-40 lbs./sq. while maintaining 4" side laps and 6" end laps.
Or

	One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering.
Maximum Design Pressure:	-52.5 psf. (See General Limitation #7)

Membrane Type: SBS

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Elastizell Lightweight Concrete.

System Type E(11): Base sheet mechanically fastened.

Deck: Minimum 310 psi Elastizell cellular lightweight concrete. Minimum 1/4" slurry coat; minimum 1" EPS board; minimum. 2" top coat, cast over Structural Concrete or Minimum 22 ga. Type B, Grade 33 steel deck secured with 5/8" diameter puddle welds at each flute with structural supports spaced a maximum 6 ft. o.c. Side laps attached with ¼" #14 x 7/8" HWH screws spaced 18" o.c.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

All General and System Limitations apply.

Base Sheet: One ply of PermaPly 28 secured with 1.7" Lightweight Concrete (LWC) CR Base Fasteners, 7" o.c. at the lap and 7" o.c. in two, equally spaced staggered rows in the field of the roll with a minimum 3" wide lap.
Or
One ply of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaMax S, or DynaLastic 250 S secured with 1.7" Lightweight Concrete (LWC) CR Base Fasteners 7" o.c. at the lap and 7" o.c. in two, equally spaced staggered rows in the field of the roll with a minimum 3" wide lap.

Ply Sheet: (Option 1- only over DynaBase) One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaMax S, or DynaLastic 250 S adhered in JM MBR Cold Application Adhesive applied at a rate of 1.5-2.0 gal./sq..
(Option 2) One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaMax S, or DynaLastic 250 S adhered in JM MBR Bonding Adhesive applied at a rate of 1.5-2.0 gal./sq..
(Option 3) One or more plies of DynaWeld Base, DynaBase HW, DynaWeld 180 S, DynaFast 180 HW (cap must be torched), DynaWeld 250 S, or DynaFast 250 HW (cap must be torched).
(Option 4 – only over PermaPly 28) One or more plies of GlasPly IV, GlasPly Premier, DynaBase, DynaBase PR, DynaPly T1, DynaBase XT, DynaMax S, DynaFast 180 S, DynaLastic 180 S or DynaLastic 250 S fully adhered in approved asphalt with the EVT range at a rate of 20-40 lbs./sq.
(Option 5 – only over PermaPly 28) One ply of DynaGrip Base SD/SA self-adhered with a cap or additional plies applied in hot asphalt by torch adhering.

Membrane:	One or more plies of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully adhered in MBR Bonding Adhesive or MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq. or approved asphalt with the EVT range at a rate of 20-40 lbs./sq. while maintaining 4" side laps and 6" end laps. Or (Requires to be used with a Modified Bitumen Ply Sheet listed above.) GlasKap or GlasKap Plus adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. Or One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering.
Surfacing:	(Optional) Install one of the following: 1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq. 2. (Optional with FR membranes) Henry 280 in two coats applied at a rate of 1.0 gal./sq./coat.
Maximum Design Pressure:	-45 psf. (See General Limitation #7)

Membrane Type: SBS

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Lightweight Concrete

System Type E(12): Base sheet mechanically fastened.

Deck: Min. 350 psi Generic Cellular Lightweight Concrete consisting of a slurry coat followed by minimum 1" thick EPS holey board and a minimum 2" thick top coat cast over Structural Concrete or Minimum 22 ga. Type B, Grade 33 steel deck. Steel shall be secured 6" o.c. to structural supports spaced a maximum of 5 ft. o.c. with Tek/5 screws. Side laps attached with Tek/1 screws spaced 20 in. o.c.*Lightweight should record a Minimum Characteristic Resistance Force (MCRF) of 106 lbf when tested with 1.7" Lightweight Concrete (LWC) CR Base Fasteners in accordance with TAS 105.**This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**

All General and System Limitations apply.

Base Sheet: One ply of PermaPly 28, DynaBase, DynaBase PR, or DynaBase XT mechanically fastened with 1.7" Lightweight Concrete (LWC) CR Base Fastener spaced 7" o.c. in the center of the minimum 4" side laps and 7" o.c. in two staggered rows in the center of the sheet.

Ply Sheet: Over SBS base sheers only, one or more plies of DynaBase, DynaBase PR, DynaPly T1, DynaBase XT, DynaMax S, DynaFast 180 S, DynaLastic 180 S or DynaLastic 250 S fully adhered in MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq.
Or
Over PermaPly 28 only, one or more plies of GlasPly IV, GlasPly Premier, DynaBase, DynaBase PR, DynaPly T1, DynaBase XT, DynaMax S, DynaFast 180 S, DynaLastic 180 S or DynaLastic 250 S fully adhered in MBR Bonding Adhesive at an application rate of 1.5 – 2.0 gal./sq. or approved asphalt with the EVT range at a rate of 20-40 lbs./sq.
Or
One or more plies of DynaWeld Base, DynaBase HW, DynaWeld 180 S, DynaFast 180 HW, DynaWeld 250 S, or DynaFast 250 HW fully bonded by torch adhering.
Or
Over PermaPly 28 only, one ply of DynaGrip Base SD/SA self-adhered with a cap or additional plies applied in hot asphalt by torch adhering.

Membrane:	One or more plies of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully adhered in MBR Bonding Adhesive or MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq. or approved asphalt with the EVT range at a rate of 20-40 lbs./sq. while maintaining 4" side laps and 6" end laps. Or (Requires to be used with a Modified Bitumen Ply Sheet listed above.) GlasKap or GlasKap Plus adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. Or One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering.
Surfacing:	(Optional) Install one of the following: 1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq. 2. (Optional with FR membranes) Henry 280 in two coats applied at a rate of 1.0 gal./sq./coat.
Maximum Design Pressure:	-67.5 psf. (See General Limitation #7)

Membrane Type: SBS

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Concrecel Lightweight Concrete

System Type E(13): Base sheet mechanically fastened.

Deck: Min. 320 psi Concrecel lightweight concrete consisting of a slurry coat followed by minimum 1" thick EPS holey board and a minimum 2" thick top coat cast over Structural Concrete deck.

All General and System Limitations apply.

Base Sheet: One ply of PermaPly 28, DynaBase, DynaBase PR, or DynaBase XT mechanically fastened with Lightweight Concrete (LWC) CR Base Fastener spaced 6" o.c. in the center of the minimum 4" side laps and 6" o.c in three staggered rows in the center of the sheet.

Ply Sheet: Over SBS base sheers only, one or more plies of DynaBase, DynaBase PR, DynaPly T1, DynaBase XT, DynaMax S, DynaFast 180 S, DynaLastic 180 S or DynaLastic 250 S fully adhered in MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq.
Or
Over PermaPly 28 only, one or more plies of GlasPly IV, GlasPly Premier, DynaBase, DynaBase PR, DynaPly T1, DynaBase XT, DynaMax S, DynaFast 180 S, DynaLastic 180 S or DynaLastic 250 S fully adhered in MBR Bonding Adhesive at an application rate of 1.5 – 2.0 gal./sq. or approved asphalt with the EVT range at a rate of 20-40 lbs./sq.
Or
One or more plies of DynaWeld Base, DynaBase HW, DynaWeld 180 S, DynaFast 180 HW, DynaWeld 250 S, or DynaFast 250 HW fully bonded by torch adhering.
Or
Over PermaPly 28 only, one ply of DynaGrip Base SD/SA self-adhered with a cap or additional plies applied in hot asphalt by torch adhering.

Membrane:	One or more plies of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully adhered in MBR Bonding Adhesive or MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq. or approved asphalt with the EVT range at a rate of 20-40 lbs./sq. while maintaining 4" side laps and 6" end laps. Or (Requires to be used with a Modified Bitumen Ply Sheet listed above.) GlasKap or GlasKap Plus adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. Or One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering.
Surfacing:	(Optional) Install one of the following: 1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq. 2. (Optional with FR membranes) Henry 280 in two coats applied at a rate of 1.0 gal./sq./coat.
Maximum Design Pressure:	-112.5 psf. with MBR Bonding Adhesive (See General Limitation #7) -120 psf. (See General Limitation #7)

Membrane Type:	SBS
Deck Type 4:	Lightweight Concrete, Non-insulated
Deck Description:	Celcore Lightweight Concrete
System Type E(14):	Base sheet mechanically fastened.
Deck:	Min. 500 psi Celcore MF; over Structural Concrete or Cementitious Wood Fiber.

All General and System Limitations apply.

Structural Deck:	Structural Concrete Or Cementitious Wood Fiber
Vapor Barrier:	**(Optional – over Concrete Deck only)** DynaBase HW torch applied to structural concrete deck prepared with ASTM D41 primer.
LWC Deck:	Min. 500 psi Celcore MF; Min. 1/8" slurry coat; Min. 1" EPS board; Min. 2" top coating with PVA curing compound.
Base Sheet:	One ply of DynaWeld Base fastened to the deck as described below:
Fastening:	**Option 1:** Fasten base sheet with 1.7" Lightweight Concrete (LWC) CR Base Fastener at the minimum 4" side lap 7" o.c. and 7" o.c. in two staggered rows in the center of the sheet. Or **Option 2:** Fasten base sheet with 1.7" Lightweight Concrete (LWC) CR Base Fasteners at the minimum 4" side lap 7" o.c. and 7" o.c. in three staggered rows in the center of the sheet.
Ply Sheet:	(Optional) One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaLastic 250 S, or DynaMax S fully bonded with MBR Bonding Adhesive or MBR Cold Application Adhesive at a rate of 1.5 gal./sq. or asphalt applied in the EVT range at a rate of 20-40 lbs./sq. Or One or more plies of DynaWeld Base, DynaBase HW, DynaWeld 180 S, DynaFast 180 HW, DynaWeld 250 S, or DynaFast 250 HW fully bonded by torch adhering.
Membrane:	One ply of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully bonded with MBR Bonding Adhesive or MBR Cold Application Adhesive at a rate of 1.5 gal./sq. or asphalt applied in the EVT range at a rate of 20-40 lbs./sq. Or One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering.
Maximum Design Pressure:	-45 psf. with Fastening Option 1 (See General Limitation #7) -52.5 psf. with Fastening Option 2 (See General Limitation #7)

Membrane Type: SBS

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Celcore Lightweight Concrete

System Type E(15): Base sheet mechanically fastened.

Deck: Minimum 500 psi Celcore MF with Celcore HS Rheology Modifying Admixture over Structual Concrete or Cementitious Wood Fiber.

All General and System limitations apply.

Structural Deck: Structural Concrete
Or
Cementitious Wood Fiber

Vapor Barrier: **(Optional – over concrete deck only)** DynaBase HW torch applied to structural concrete deck prepared with ASTM D41 primer.

LWC Deck: Min. 500 psi Celcore MF with Celcore HS Rheology Modifying Ad mixture; Min. 1/4" slurry coat; Min. 1" EPS board; Min. 2" top coating with PVA curing compound.

Base Sheet: **(Option 1)** One ply of GlasBase Plus, PermaPly 28 or Ventsulation Felt with 4" laps installed with 1.7" Lightweight Concrete (LWC) CR Base Fastener fastened 12" o.c. in the 4" lap and 12" o.c. in three, equally spaced staggered rows in the field of the roll.

(Option 2) One ply of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaMax S, or DynaLastic 250 S with 4" laps installed with 1.7" Lightweight Concrete (LWC) CR Base Fastener fastened 12" o.c. in the 4" lap and 12" o.c. in three, equally spaced staggered rows in the field of the roll.

Ply Sheet: One or more plies of DynaBase, DynaBase PR, DynaPly T1, DynaBase XT, DynaMax S, DynaFast 180 S, DynaLastic 180 S or DynaLastic 250 S fully adhered in MBR Bonding Adhesive at an application rate of 1.5 – 2.0 gal./sq.
Or
Over SBS base sheets only, one or more plies of DynaBase, DynaBase PR, DynaPly T1, DynaBase XT, DynaMax S, DynaFast 180 S, DynaLastic 180 S or DynaLastic 250 S MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq.
Or
Over PermaPly 28 only, Oone or more plies of GlasPly IV, GlasPly Premier, DynaBase, DynaBase PR, DynaPly T1, DynaBase XT, DynaMax S, DynaFast 180 S, DynaLastic 180 S or DynaLastic 250 S fully adhered in approved asphalt with the EVT range at a rate of 20-40 lbs./sq.
Or
One or more plies of DynaWeld Base, DynaBase HW, DynaWeld 180 S, DynaFast 180 HW, DynaWeld 250 S, or DynaFast 250 HW fully bonded by torch adhering.
Or
Over PermaPly 28 only, one ply of DynaGrip Base SD/SA self-adhered with a cap or additional plies applied in hot asphalt by torch adhering.

Membrane: One or more plies of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully adhered in MBR Bonding Adhesive or MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq. or approved asphalt with the EVT range at a rate of 20-40 lbs./sq. while maintaining 4" side laps and 6" end laps.
Or
(Requires to be used with a Modified Bitumen Ply Sheet listed above.) GlasKap or GlasKap Plus adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Or
One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering.

Surfacing: (Optional) Install one of the following:
1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq.
2. (Optional with FR membranes) Henry 280 in two coats applied at a rate of 1.0 gal./sq./coat.

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

Membrane Type:	SBS
Deck Type 4:	Lightweight Concrete, Non-insulated
Deck Description:	Celcore Lightweight Concrete
System Type E(16):	Base sheet mechanically fastened.
Deck:	Min. 500 psi cellular lightweight Celcore MF with Celcore HS Rheology Modifying Ad mixture over Structual Concrete or Cementitious Wood Fiber.

All General and System limitations apply.

Structural Deck:	Structural Concrete Or Cementitious Wood Fiber
Vapor Barrier:	**(Optional – over concrete deck only)** DynaBase HW torch applied to structural concrete deck prepared with ASTM D41 primer.
LWC Deck:	Min. 500 psi Celcore MF with Celcore HS Rheology Modifying Ad mixture; Min. 1/4" slurry coat; Min. 1" EPS board; Min. 2" top coating with PVA curing compound.
Base Sheet:	One ply of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaMax S, or DynaLastic 250 S mechanically fastened with 1.7" Lightweight Concrete (LWC) CR Base Fastener spaced 12" o.c. in the 4" lap and 12" o.c. in the field of the roll in two (2) equally spaced staggered rows in the field.
Ply Sheet:	One or more plies of DynaBase, DynaBase PR, DynaPly T1, DynaBase XT, DynaMax S, DynaFast 180 S, DynaLastic 180 S or DynaLastic 250 S fully adhered in MBR Bonding Adhesive or MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq. or in approved asphalt with the EVT range at a rate of 20-40 lbs./sq. Or One or more plies of DynaWeld Base, DynaBase HW, DynaWeld 180 S, DynaFast 180 HW, DynaWeld 250 S, or DynaFast 250 HW torch adhered with 4" side laps.
Membrane:	One or more plies of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully adhered in MBR Bonding Adhesive or MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq. or approved asphalt with the EVT range at a rate of 20-40 lbs./sq. while maintaining 4" side laps and 6" end laps. Or One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering.
Maximum Design Pressure:	-52.5 psf. (See General Limitation #7)

Membrane Type: SBS

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Celcore Lightweight Concrete

System Type E(17): Base sheet mechanically fastened.

Deck: Minimum 500 psi Celcore MF with Celcore HS Rheology Modifying Admixture over Structural Concrete or Cementitious Wood Fiber.

All General and System Limitations apply.

Structural Deck: Structural Concrete
Or
Cementitious Wood Fiber

Vapor Barrier: **(Optional – only over concrete deck)** DynaBase HW torch applied to structural concrete deck prepared with ASTM D41 primer.

LWC Deck: Min. 500 psi Celcore MF with Celcore HS Rheology Modifying Ad mixture; Min. 1/4" slurry coat; Min. 1" EPS board; Min. 2" top coating with PVA curing compound.

Base Sheet: One ply of PermaPly 28 secured as described below.
Or
One ply of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaMax S, or DynaLastic 250 S secured as described below.

Base Sheet Fastening: **Option 1:** The base sheet option above is fastened with 1.7" Lightweight Concrete (LWC) CR Base Fasteners 7" o.c. at the lap and 7" o.c. in two, equally spaced staggered rows in the field of the roll with a minimum 3" wide lap.
Or
Option 2 (only with PermaPly 28): The base sheet option above is fastened with 1.7" Lightweight Concrete (LWC) CR Base Fasteners 6" o.c. at the lap and 6" o.c. in three, equally spaced staggered rows in the field of the roll with a minimum 4" wide lap.

Ply Sheet:	(Option 1- only over DynaBase) One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaMax S, or DynaLastic 250 S adhered in JM MBR Cold Application Adhesive applied at a rate of 1.5-2.0 gal./sq. (Option 2) One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaMax S, or DynaLastic 250 S adhered in JM MBR Bonding Adhesive applied at a rate of 1.5-2.0 gal./sq.. (Option 3) One or more plies of DynaWeld Base, DynaBase HW, DynaWeld 180 S, DynaFast 180 HW (cap must be torched), DynaWeld 250 S, or DynaFast 250 HW (cap must be torched). (Option 4 – only over PermaPly 28) One or more plies of GlasPly IV, GlasPly Premier, DynaBase, DynaBase PR, DynaPly T1, DynaBase XT, DynaMax S, DynaFast 180 S, DynaLastic 180 S or DynaLastic 250 S fully adhered in approved asphalt with the EVT range at a rate of 20-40 lbs./sq. (Option 5 – only over PermaPly 28) One ply of DynaGrip Base SD/SA self-adhered with a cap or additional plies applied in hot asphalt by torch adhering.
Membrane:	One or more plies of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully adhered in MBR Bonding Adhesive or MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq. or approved asphalt with the EVT range at a rate of 20-40 lbs./sq. while maintaining 4” side laps and 6” end laps. Or (Requires to be used with a Modified Bitumen Ply Sheet listed above.) GlasKap or GlasKap Plus adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. Or One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering.
Surfacing:	(Optional) Install one of the following: 1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq. 2. (Optional with FR membranes) Henry 280 in two coats applied at a rate of 1.0 gal./sq./coat.
Maximum Design Pressure:	-67.5 psf. with Fastening Option 1 (See General Limitation #7) -60 psf. with Fastening Option 2 (See General Limitation #7)

Membrane Type: SBS

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Celcore Lightweight Concrete

System Type E(18): Base sheet mechanically fastened.

Deck: Min. 300 psi Celcore MF over Structural Concrete.

All General and System Limitations apply.

Structural Deck: Structural Concrete prepared with ASTM D41 primer.

Vapor Barrier: DynaWeld Cap 180 FR, or DynaWeld 180 S torch applied to primed structural concrete deck.

LWC Deck: Min. 300 psi Celcore MF; Min. 1/8" slurry coat; Min. 1" EPS board; Min. 2" top coating with PVA curing compound.

Base Sheet: One ply of DynaWeld Base fastened to the deck as described below:

Fastening: Fasten base sheet with 1.7" Lightweight Concrete (LWC) CR Base Fastener at the minimum 4" side lap 7" o.c. and 7" o.c. in two staggered rows in the center of the sheet.

Ply Sheet (Optional): One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaLastic 250 S, or DynaMax S fully bonded with MBR Bonding Adhesive or MBR Cold Application Adhesive at a rate of 1.5 gal./sq. or asphalt applied in the EVT range at a rate of 20-40 lbs./sq.
Or
One or more plies of DynaWeld Base, DynaBase HW, DynaWeld 180 S, DynaFast 180 HW, DynaWeld 250 S, or DynaFast 250 HW fully bonded by torch adhering.

Membrane: One ply of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully bonded with MBR Bonding Adhesive or MBR Cold Application Adhesive at a rate of 1.5 gal./sq. or asphalt applied in the EVT range at a rate of 20-40 lbs./sq.
Or
One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering.

Maximum Design Pressure: -45 psf. with Fastening Option 1 (See General Limitation #7)

Membrane Type: SBS

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Celcore Lightweight Concrete.

System Type E(19): Base sheet mechanically fastened.

Deck: Minimum 340 psi Celcore MF with Celcore HS Rheology Modifying Admixture over Structural Concrete, or Minimum 22 ga., Grade 33 steel deck treated with Celcore S-1.

All General and System Limitations apply.

Structural Deck: Structural Concrete prepared with ASTM D41 primer
Or
Minimum 22 ga., Type B, Grade 33 steel deck treated with Celcore S-1 and secured with 5/8" diameter puddle welds at each flute with structural supports spaced a maximum 6-ft. o.c. Side laps attached with ¼" #14 x 7/8" HWH screws spaced 18" o.c.

Vapor Barrier: **(over concrete deck only)** DynaWeld Cap 180 FR, or DynaWeld 180 S torch applied to structural concrete deck.

LWC Deck: Minimum 340 psi Celcore MF with Celcore HS Rheology Modifying Admixture with minimum 1/4" slurry coat; minimum 1" EPS board; minimum 2" top coat with PVA curing compound.

Base Sheet: One ply of PermaPly 28 secured with 1.7" Lightweight Concrete (LWC) CR Base Fasteners, 7" o.c. at the lap and 7" o.c. in two, equally spaced staggered rows in the field of the roll with a minimum 3" wide lap.
Or
One ply of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaMax S, or DynaLastic 250 S secured with 1.7" Lightweight Concrete (LWC) CR Base Fasteners 7" o.c. at the lap and 7" o.c. in two, equally spaced staggered rows in the field of the roll with a minimum 3" wide lap.

Ply Sheet: **(Option 1- only over DynaBase)** One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaMax S, or DynaLastic 250 S adhered in JM MBR Cold Application Adhesive applied at a rate of 1.5-2.0 gal./sq..
(Option 2) One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, DynaMax S, or DynaLastic 250 S adhered in JM MBR Bonding Adhesive applied at a rate of 1.5-2.0 gal./sq..
(Option 3) One or more plies of DynaWeld Base, DynaBase HW, DynaWeld 180 S, DynaFast 180 HW (cap must be torched), DynaWeld 250 S, or DynaFast 250 HW (cap must be torched).
(Option 4 – only over PermaPly 28) One or more plies of GlasPly IV, GlasPly Premier, DynaBase, DynaBase PR, DynaPly T1, DynaBase XT, DynaMax S, DynaFast 180 S, DynaLastic 180 S or DynaLastic 250 S fully adhered in approved asphalt with the EVT range at a rate of 20-40 lbs./sq.
(Option 5 – only over PermaPly 28) One ply of DynaGrip Base SD/SA self-adhered with a cap or additional plies applied in hot asphalt by torch adhering.

Membrane:	One or more plies of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully adhered in MBR Bonding Adhesive or MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq. or approved asphalt with the EVT range at a rate of 20-40 lbs./sq. while maintaining 4" side laps and 6" end laps. Or (Requires to be used with a Modified Bitumen Ply Sheet listed above.) GlasKap or GlasKap Plus adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. Or One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering.
Surfacing:	(Optional) Install one of the following: 1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq. 2. (Optional with FR membranes) Henry 280 in two coats applied at a rate of 1.0 gal./sq./coat.
Maximum Design Pressure:	-67.5 psf. (See General Limitation #7)

Membrane Type: SBS

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Celcore Lightweight Concrete.

System Type E(20): Base sheet mechanically fastened.

Deck: Minimum 360 psi Celcore MF with Celcore HS Rheology Modifying Admixture over Minimum 22 ga., Grade 33 steel deck.

All General and System Limitations apply.

Structural Deck: Minimum 22 ga., Type B, Grade 33 steel deck secured with 5/8" diameter puddle welds at each flute with structural supports spaced a maximum 6-ft. o.c. Side laps attached with ¼" #14 x 7/8" HWH screws spaced 24" o.c.

Thermal Barrier: Min. ½" thick DensDeck Prime secured to deck with UltraFast Fasteners and UltraFast Square Metal Plates fastened at a rate of 1 fastener per 2 ft^2.

Vapor Barrier: DynaWeld Cap 180 FR with min. 4" wide side laps torch applied to thermal barrier and treated with Celcore S-1.

LWC Deck: Minimum 360 psi Celcore MF with Celcore HS Rheology Modifying Admixture with minimum 1/8" slurry coat; minimum 1" EPS board; minimum 2" top coat with PVA curing compound.

Base Sheet: One ply of DynaBase PR, DynaLastic 180 S, or DynaLastic 250 S secured as described below with a minimum 3" wide lap.

Fastening Option 1: Base sheet secured with 1.7" Lightweight Concrete (LWC) CR Base Fasteners 9" o.c. at the lap and 9" o.c. in two, equally spaced staggered rows in the field of the roll.

Fastening Option 2: Base sheet secured with 1.7" Lightweight Concrete (LWC) CR Base Fasteners 9" o.c. at the lap and 12" o.c. in two, equally spaced staggered rows in the field of the roll.

Ply Sheet: One or more plies of DynaWeld 180 S, DynaFast 180 HW, DynaWeld 250 S, or DynaFast 250 HW torch adhered to the base sheet with min. 4" wide side laps.

Membrane: One ply of DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering with min. 4" wide side laps.

Maximum Design Pressure: -67.5 psf. with Fastening Option 1 (See General Limitation #7)
-52.5 psf. with Fastening Option 2 (See General Limitation #7)

Membrane Type: SBS

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Celcore Lightweight Concrete.

System Type E(21): Base sheet mechanically fastened.

Deck: Minimum 370 psi Celcore MF with Celcore HS Rheology Modifying Admixture over Minimum 22 ga., Grade 33 steel deck.

All General and System Limitations apply.

Structural Deck: Minimum 22 ga., Type B, Grade 33 steel deck secured with 5/8" diameter puddle welds at each flute with structural supports spaced a maximum 6-ft. o.c. Side laps attached with ¼" #14 x 7/8" HWH screws spaced 24" o.c.

Thermal Barrier: Min. ½" thick DensDeck Prime secured to deck with UltraFast Fasteners and UltraFast Square Metal Plates fastened at a rate of 1 fastener per 2 ft^2.

Vapor Barrier: DynaWeld Cap 180 FR with min. 4" wide side laps torch applied to thermal barrier and treated with Celcore S-1.

LWC Deck: Minimum 370 psi Celcore MF with Celcore HS Rheology Modifying Admixture with minimum 1/8" slurry coat; minimum 1" EPS board; minimum 2" top coat with PVA curing compound.

Base Sheet: One ply of DynaBase PR, DynaLastic 180 S, or DynaLastic 250 S secured with 1.7" Lightweight Concrete (LWC) CR Base Fasteners 7" o.c. at the lap and 7" o.c. in two, equally spaced staggered rows in the field of the roll with a minimum 3" wide lap.

Ply Sheet: One or more plies of DynaWeld 180 S, DynaFast 180 HW, DynaWeld 250 S, or DynaFast 250 HW torch adhered to the base sheet with min. 4" wide side laps.

Membrane: One ply of DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering with min. 4" wide side laps.

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

Membrane Type: SBS

Deck Type 4: Lightweight Concrete, Non-insulated

Deck Description: Concrecel Lightweight Concrete.

System Type E(22): Base sheet mechanically fastened.

Deck: Min. 420 psi Concrecel lightweight concrete over Minimum 22 ga., Grade 33 steel deck or structural concrete deck.

All General and System Limitations apply.

Structural Deck: Structural Concrete deck primed with ASTM D 41 primer.
Or
Minimum 22 ga., Type B, Grade 33 steel deck secured with 5/8" diameter puddle welds at each flute with structural supports spaced a maximum 6-ft. o.c. Side laps attached with #12 SD screws spaced 12" o.c.

Alternative Roof Blocking System: **(Optional): (Steel Deck only)** A 16 ga. Galvanized Alternative Roof Blocking System (ARBS) is attached to the metal deck system with #15 screws spaced 12" o.c. around the perimeter edge of the lightweight concrete.

Thermal Barrier: **(Steel Deck only)** Min. 5/8" thick SECUROCK Gypsum-Fiber Roof Board secured to deck with JM High Load fasteners and UltraFast Metal Plates fastened at a rate of 1:2 ft^2.

Vapor Barrier: DynaWeld Cap 180 FR torch applied to thermal barrier **(Steel deck only)** or structural concrete deck with min. 4" wide side laps.

LWC Deck: Min. 420 psi Concrecel lightweight concrete consisting of a slurry coat followed by minimum 1" thick EPS board and a minimum 2" thick top coat.

Base Sheet: One ply of DynaBase PR, DynaLastic 180 S, or DynaLastic 250 S secured to the lightweight concrete with 1.7" Lightweight Concrete (LWC) CR Base Fasteners 7" o.c. at the lap and 7" o.c. in two, equally spaced staggered rows in the field of the roll with a minimum 3" wide lap.

Ply Sheet: One or more plies of DynaWeld 180 S, DynaFast 180 HW, DynaWeld 250 S, or DynaFast 250 HW torch adhered to the base sheet with min. 4" wide side laps.

Membrane: One ply of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR, CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR fully bonded by torch adhering with min. 4" wide side laps.

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

Membrane Type:	SBS
Deck Type 4:	Lightweight Concrete
Deck Description:	Celcore Lightweight Concrete
System Type F(1):	Base sheet adhered in approved adhesive.
Deck:	Min. 500 psi Celcore MF with Celcore HS Rheology Modifying Admixture; Min. 1/8" slurry coat; Min. 1" EPS board; Min. 2" top coating with PVA curing compound cast over Cementitious Wood Fiber

All General and System limitations apply.

Base Sheet:	One ply of DynaBase adhered to the substrate with JM MBR RA Membrane Adhesive 1 in. wide ribbons spaced 12 in. o.c.
Ply Sheet:	(Optional) One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaMax S, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, or DynaLastic 250 S fully adhered to the base sheet with MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq., Or, One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaMax S, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, or Dynalastic 250 S fully adhered to the base sheet with approved mopping asphalt at an application rate of 20-40 lbs./sq. Or, One or more plies of DynaWeld 180 S, DynaWeld Base, DynaBase HW, DynaFast 180 HW, DynaWeld Cap 250 S or DynaFast 250 HW heat welded.
Membrane:	One or more plies of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully adhered to the base sheet with MBR Cold Application Adhesive fully adhered at an application rate of 1.5 – 2.0 gal./sq. Or, One or more plies of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully adhered to the base sheet with approved mopping asphalt at an application rate of 20-40 lbs./sq. Or, One or more plies of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR heat welded.
Maximum Design Pressure:	-117.5 psf. (See General Limitation #9)

Membrane Type:	SBS
Deck Type 4:	Lightweight Concrete
Deck Description:	Celcore Lightweight Concrete
System Type F(2):	Base sheet adhered in approved adhesive.
Deck:	Min. 500 psi Celcore MF with Celcore HS Rheology Modifying Admixture over Structural Concrete

All General and System limitations apply.

Structural Deck:	Structural Concrete deck
Vapor Barrier (Optional):	**Option 1:** DynaWeld Cap 180 FR torch applied to structural concrete deck. Or **Option 2:** DynaBase HW torch applied to structural concrete deck. Or **Option 3:** DynaWeld 180 S torch applied to structural concrete deck.
LWC Deck:	Min. 500 psi Celcore MF with Celcore HS Rheology Modifying Admixture; Min. 1/8" slurry coat; Min. 1" EPS board; Min. 2" top coating with PVA curing compound
Base Sheet:	One ply of DynaBase adhered to the substrate with JM MBR RA Membrane Adhesive in 1 in. wide ribbons spaced 6 in. o.c.
Ply Sheet:	(Optional) One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaMax S, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, or Dynalastic 250 S fully adhered to the base sheet with MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq., Or, One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaMax S, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, or Dynalastic 250 S fully adhered to the base sheet with approved mopping asphalt at an application rate of 20-40 lbs./sq. Or, One or more plies of DynaWeld 180 S, DynaWeld Base, DynaBase HW, DynaFast 180 HW, DynaWeld Cap 250 S or DynaFast 250 HW heat welded.
Membrane:	One or more plies of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully adhered to the base sheet with MBR Cold Application Adhesive fully adhered at an application rate of 1.5 – 2.0 gal./sq. Or, One or more plies of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully adhered to the base sheet with approved mopping asphalt at an application rate of 20-40 lbs./sq. Or,

	One or more plies of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR heat welded.
Maximum Design Pressure:	-290 psf. without optional Vapor Barrier or with Vapor Barrier Option 1 (See General Limitation #9) -257.5 psf. with Vapor Barrier Option 2 (See General Limitation #9) -202.5 psf. with Vapor Barrier Option 3 (See General Limitation #9)

Membrane Type:	SBS
Deck Type 4:	Lightweight Concrete
Deck Description:	Celcore Lightweight Concrete
System Type F(3):	Base sheet adhered in approved adhesive.
Deck:	Min. 500 psi Celcore MF with Celcore HS Rheology Modifying Admixture; over Structural Concrete

All General and System limitations apply.

Structural Deck:	Structural Concrete deck primed with ASTM D 41 primer.
Vapor Barrier (Optional):	DynaWeld Cap 180 FR, or DynaWeld 180 S torch applied to structural concrete deck. Or DynaBase HW torch applied to structural concrete deck.
LWC Deck:	Min. 500 psi Celcore MF with Celcore HS Rheology Modifying Admixture; Min. 1/8" slurry coat; Min. 1" EPS board; Min. 2" top coating with PVA curing compound.
Base Sheet:	One ply of DynaBase adhered to the substrate with JM MBR RA Membrane Adhesive 1 in. wide ribbons spaced 12 in. o.c.
Ply Sheet:	(Optional) One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaMax S, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, or DynaLastic 250 S fully adhered to the base sheet with MBR Cold Application Adhesive at an application rate of 1.5 – 2.0 gal./sq., Or, One or more plies of DynaBase, DynaBase PR, DynaBase XT, DynaMax S, DynaLastic 180 S, DynaFast 180 S, DynaPly T1, or Dynalastic 250 S fully adhered to the base sheet with approved mopping asphalt at an application rate of 20-40 lbs./sq. Or, One or more plies of DynaWeld 180 S, DynaWeld Base, DynaBase HW, DynaFast 180 HW, DynaWeld Cap 250 S or DynaFast 250 HW heat welded.
Membrane:	One or more plies of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully adhered to the base sheet with MBR Cold Application Adhesive fully adhered at an application rate of 1.5 – 2.0 gal./sq. Or, One or more plies of DynaGlas 30 FR, DynaGlas, DynaGlas FR CR, DynaGlas FR, DynaGlas FR CR G, DynaLastic 180, DynaLastic 180 FR, DynaLastic 180 FR CR, DynaLastic 180 FR CR G, DynaGlas FR XT, DynaKap FR T1, DynaKap FR T1 CR G, DynaLastic 250 FR, DynaLastic 250 FR CR, DynaLastic 250 FR CR G, DynaMax FR, DynaMax FR CR, or DynaMax FR Plus fully adhered to the base sheet with approved mopping asphalt at an application rate of 20-40 lbs./sq. Or,

	One or more plies of DynaWeld Cap FR, DynaWeld Cap FR CR, DynaWeld Cap FR CR G, DynaWeld Cap 180 FR CR, DynaWeld Cap 180 FR CR G, DynaWeld Cap 180 FR, DynaWeld Cap FR XT, DynaWeld Cap 250, DynaWeld Cap 250 FR, DynaWeld Cap 250 FR CR, DynaWeld Cap FR CR G, DynaKap FR T1 HW CR G, DynaMax FR HW, or DynaMax FR HW CR heat welded.
Maximum Design Pressure:	-117.5 psf. (See General Limitation #9)

LIGHTWEIGHT INSULATING CONCRETE 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 Engineer, Architect, or Registered Roof Consultant.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.
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 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 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