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)

CertainTeed Corporation
1400 Union Meeting Road, P.O. Box 1100
Blue Bell, PA 19422-0761

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: CertainTeed Conventional Built-Up-Roof System over Recover 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. 08-0410.04 and consists of pages 1 through 19.
The submitted documentation was reviewed by Jorge L. Acebo.

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Built-Up Roofing
Material:	Fiberglass
Deck Type:	Recover
Maximum Design Pressure:	**See Specific Deck Assemblies**

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
All Weather/Empire Base Sheet	36" x 65'10"; Roll weight: 86 lbs. (2 squares)	ASTM D 4601 Type II UL Type 15	Asphalt coated, fiberglass reinforced base sheet.
Flintglas® Mineral Surfaced Cap Sheet	36" X 32'10"; Roll Weight: 78 lbs. (1 square)	ASTM D 3909	Asphalt impregnated and coated inorganic glass fiber surfaced with mineral granules used as the top ply in conventional built-up roof membranes.
Flintglas® Mineral Surfaced Cap CoolStar	36" X 32'10"; Roll Weight: 78 lbs. (1 square)	ASTM D 3909	Asphalt impregnated and coated inorganic glass fiber surfaced with mineral granules used as the top ply in conventional built-up roof membranes. Covered with reflective CoolStar Coating.
Flintglas® Ply Sheet Type IV or VI	36" x 164'7"; Roll weight: 40/55 lbs. (5 squares)	ASTM D 2178 Type IV or VI UL Type G1	Fiberglass, asphalt impregnated ply sheet.
Flex-I-Glas Base Sheet	36" x 98'9"; Roll weight: 90 lbs. (3 squares)	ASTM D 4601, Type II UL Type G2	SBS Modified, fiberglass reinforced base sheet.
Flex-I-Glas FR Base Sheet	36" x 98'9"; Roll weight: 90 lbs. (3 squares)	ASTM D 6163, Grade S, Type I	SBS Modified, fiberglass reinforced base sheet.
GlasBase™ Base Sheet	36" x 98'9"; Roll weight: 69 lbs. (3 squares)	ASTM D 4601 UL Type G2	Asphalt coated, fiberglass base sheet.
PolySMS Base	39 3/8" x 64' 4"; Roll weight: 90 lbs. (2 squares)	ASTM D4601, Grade S, Type II UL Type G2	Modified Bitumen coated polyester base sheet.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ACFoam-II	Polyisocyanurate foam insulation	Atlas Roofing Corporation
High Density Wood Fiberboard	Wood fiber insulation board	generic
Perlite Insulation	Perlite insulation board	generic
ISO 95+ GL	Polyisocyanurate foam insulation	Firestone Building Products Company, LLC
H-Shield	Polyisocyanurate foam insulation	Hunter Panels, LLC
DensDeck, DensDeck Prime	Water resistant gypsum board	Georgia Pacific Gypsum LLC
ENRGY 3, ENRGY 3 25 PSI	Polyisocyanurate foam insulation	Johns Manville Corp.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Dekfast #12, #14 & #15 HS	Insulation fastener for wood, steel and concrete decks		SFS Intec, Inc.
2.	Dekfast Dekspike Fasteners	Insulation fastener for concrete decks		SFS Intec, Inc.
3.	Dekfast Galvalume Steel Hex Plate	Galvalume hex stress plate.	2 7/8" x 3 ¼"	SFS Intec, Inc.
4.	Dekfast DekFlat Round Plastic Lock Plate	Polypropylene locking plate.	3" x 3 ¼"	SFS Intec, Inc.
5.	#12 Standard Roofgrip, #14 Roofgrip Fasteners	Insulation fastener for concrete, steel or wood decks.		OMG, Inc.
6.	3 in. Ribbed Galvalume Plate	Galvalume stress plate.	3" round	OMG, Inc.
7.	AccuTrac Plate	Galvalume stress plate.	3" square	OMG, Inc.
8.	CD-10	Insulation fastener for concrete decks.		OMG, Inc.
9.	Fluted Nail (Con-Tite)	Insulation fastener		OMG, Inc.
10.	OMG ASAP Pre-Assembled System	Pre-assembled Insulation fastener and plate		OMG, Inc.
11.	OMG Plastic Plate	Polypropylene plastic plate	3.25" round	OMG, Inc.
12.	OMG G-2	Galvalume AZ55 steel plate	3.5" round	OMG, Inc.
13.	3 in. Round Metal Plate	Galvalume AZ50 steel plate	3" round	OMG, Inc.
14.	Trufast #14 HD Fastener	Insulation fastener for concrete decks		Altenloh, Brinck & Co. U.S., Inc.
15.	Trufast 3" Metal Insulation Plate	Galvalume AZ50 steel plate	3.23" round	Altenloh, Brinck & Co. U.S., Inc.
16.	FM-90 Assembled Base Sheet Fasteners	Base ply fastening systems for lightweight concrete decks.		ES Products, Inc.
17.	Polymer Gyptec	Glass reinforced Nylon insulation fastener for gypsum & CWF decks.		OMG, Inc.
18.	Polymer Gyptec Insulation Plate	Galvalume stress plate	3" round	OMG, Inc.
19.	Lite Deck	Insulation fastener for CWF and Gypsum decks.		OMG, Inc.
20.	Lite Deck Plate	Galvalume stress plate	3" round	OMG, Inc.

EVIDENCE SUBMITTED:

Test Agency/Identifier	Name	Report	Date
Trinity|ERD	TAS 117 (B)	3503.10.06	10/10/06
	TAS 117 (B)	O6490.04.07-R1	06/27/07
	TAS 117 (B)/ ASTM D6862	C8500SC.11.07	11/30/07
	TAS 114	C8370.08.08	08/19/08
	ASTM Physical Properties	C10080.09.08-R4	03/25/10
	ASTM D4601	C40050.09.12-1	09/28/12
	ASTM D3909	C44200.03.13	03/22/13
	ASTM D1970	C40050.09.12-2	09/28/12
Momentum Technologies, Inc.	ASTM D 4601	AX31G8D	09/05/08
	ASTM D 3909/ D 4897	AX31G8C	09/05/08
Factory Mutual Research Corp.	FMRC 4470	J.I. #3Y8A1.AM	03/23/96
	FMRC 4454	J.I. 0D3A3.AM	04/04/97
	FMRC 4470	J.I. 2D0A0.AM	12/23/98
	FMRC 4470	J.I. 1D7A4.AM	11/09/98
Underwriters Laboratories, Inc.	UL 790	R11656	01/11/13
United States Testing Company	ASTM D 5147	97457-4	06/03/88
	ASTM D 5147	97-457-2R	12/02/87
PRI Construction Materials Technologies LLC	ASTM D2178	CTC-122-02-01	03/13/12
	ASTM D2178	CTC-123-02-01	03/13/12
	ASTM D6163	CTC-066-02-01	08/09/11
	ASTM D4601	CTC-127-02-01	03/13/12

APPROVED ASSEMBLIES

Membrane Type: BUR

Deck Type 7I: Recover

Deck Description: Wood/Steel/Concrete/Lightweight Concrete/Gypsum

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

All General and System Limitations apply.

Anchor Sheet: All Weather/Empire, Flex-I-Glas, Flex-I-Glas FR or GlasBase base sheet mechanically attached as detailed below.

Fastening ***(wood)***: Anchor sheet shall be lapped 4" and fastened with approved roofing nails and tin caps 9" o.c. in the lap and two rows staggered in the center of the sheet 12" o.c. ***(Maximum Design Pressure –45 psf, See General Limitation #9.)***

Fastening ***(steel)***: Fastening #1: OMG #12 Standard Roofgrip or #14 Roofgrip fasteners with OMG 3 in. Round Metal Plates, Dekfast #12, Dekfast #14 or Dekfast #15 HS with Dekfast Galvalume Steel Hex Plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 24" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #2: OMG #12 Standard Roofgrip or #14 Roofgrip fasteners with OMG 3 in. Round Metal Plates, Dekfast #12, Dekfast #14 or Dekfast #15 HS with Dekfast Galvalume Steel Hex Plates at a 4" side lap 12" o.c. and one row in the center of the sheet, 18" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)

Fastening ***(concrete)***: Fastening #1: OMG #14 Roofgrip fasteners with OMG 3 in. Round Metal Plates, Dekfast #14 or Dekfast #15 HS with Dekfast Galvalume Steel Hex Plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 24" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #2: OMG #14 Roofgrip fasteners with OMG 3 in. Round Metal Plates, Dekfast #14 or Dekfast #15 HS with Dekfast Galvalume Steel Hex Plates at a 4" side lap 12" o.c. and one row in the center of the sheet, 18" o.c. ***(Maximum Design Pressure –45 psf, See General Limitation #9.)***

Fastening ***(LWC)***: (All Weather/Empire Base Sheet Only) ES Products FM-90 Assembled Base Sheet Fasteners at a 7" o.c. in the 4" side lap and two evenly divided, staggered rows in the center of the sheet 7" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)

Fastening ***(gypsum)***: Fastening #1: FM-90 Assembled Base Sheet Fasteners spaced 7½" o.c. in min. 2" side lap and one row in center of the sheet, 7½" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #2: FM-90 Assembled Base Sheet Fasteners spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 12" o.c.
(Maximum Design Pressure –60 psf, See General Limitation #9.)

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners Table 3	Fastener Density/ft^2
ACFoam-II, ENRGY 3, ENRGY 3 25 PSI, H-Shield Minimum 1.5" thick	**N/A**	**N/A**
Approved High Density Wood Fiberboard Minimum ½" thick	**N/A**	**N/A**
Approved Perlite Minimum ¾" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) Install one ply of All Weather/Empire, Flex-I-Glas or GlasBase base sheet directly over the top layer of insulation. Adhere with any approved mopping asphalt at an application rate of 20-35 lbs./sq.

Ply Sheet: Two or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) or ASTM D226, Type I sheet adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.

Cap Sheet: (Optional) One ply of Flintglas Mineral Surface Cap Sheet or Flintglas Mineral Surfaced Cap CoolStar adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.

Surfacing: (Required if no cap sheet is used) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Flood coat of hot asphalt with an application rate of 60 lbs./sq. ± 20%; plus gravel or slag with an application rate of 400 lbs./sq. & 300 lbs./sq., respectively.
2. A two part coating consisting of a base coat of APOC #300 Asphalt Fibered Emulsion at rate of 3 gal./sq.; surfaced with 1 gal./sq. APOC#212 Fibered Aluminum Roof Coating.

Maximum Design Pressure: See Fastening Requirements above.

Membrane Type: BUR

Deck Type 7I: Recover

Deck Description: Wood/Steel/Concrete/Lightweight Concrete/Cementitious Wood Fiber/Gypsum

System Type A(2): Anchor sheet (optional), insulation adhered with approved asphalt.

All General and System Limitations apply.

Anchor Sheet: (Optional) One ply of All Weather/Empire, Flex-I-Glas, Flex-I-Glas FR or GlasBase base sheet in a spot mopping of approved asphalt, 12" diameter. circles, 24" o.c. at a rate of 12 lbs./sq. See General Limitation #4.

One or more layers of any of the following insulations:

Insulation Layer	**Insulation Fasteners Table 3**	**Fastener Density/ft^2**
ACFoam-II, ENRGY 3, ERNGY 3 25 PSI, H-Shield Minimum 1.5" thick	**N/A**	**N/A**
Approved High Density Wood Fiberboard Minimum ½" thick	**N/A**	**N/A**
Approved Perlite Minimum ¾" thick	**N/A**	**N/A**
DensDeck Minimum ¼" thick	**N/A**	**N/A**

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

Base Sheet: (Optional) Install one ply of All Weather/Empire, Flex-I-Glas or GlasBase base sheet directly over the top layer of insulation. Adhere with any approved mopping asphalt at an application rate of 20-35 lbs./sq.

Ply Sheet: Two or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) or ASTM D226, Type I sheet adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.

Cap Sheet: (Optional) One ply of Flintglas Mineral Surface Cap Sheet or Flintglas Mineral Surfaced Cap CoolStar adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.

Surfacing: (Required if no cap sheet is used) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Flood coat of hot asphalt with an application rate of 60 lbs./sq. ± 20%; plus gravel or slag with an application rate of 400 lbs./sq. & 300 lbs./sq., respectively.
2. A two part coating consisting of a base coat of APOC #300 Asphalt Fibered Emulsion at rate of 3 gal./sq.; surfaced with 1 gal./sq. APOC#212 Fibered Aluminum Roof Coating.

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

Membrane Type: BUR

Deck Type 7I: Recover

Deck Description: Wood/Steel/Concrete/Cementitious Wood Fiber/Gypsum

System Type B: Base layer of insulation mechanically fastened, optional top layer adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	**Insulation Fasteners Table 3**	**Fastener Density/ft²**
ACFoam-II, ENRGY 3, ENRGY 3 25 PSI, H-Shield Minimum 1.5" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
Approved Perlite Minimum ¾" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
Approved High Density Wood Fiberboard Minimum ½" thick	**Approved Fastener for Deck Type**	**1:2 ft²**

Note: Base layers of insulation shall be mechanically attached using the fastener density listed. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Protocol TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional)	**Insulation Fasteners**	**Fastener Density/ft²**
Approved High Density Wood Fiberboard Minimum ½" thick	**N/A**	**N/A**
Approved Perlite Minimum ¾" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: Optional top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: (Optional) Install one ply of All Weather/Empire, Flex-I-Glas or GlasBase base sheet directly over the top layer of insulation. Adhere with any approved mopping asphalt at an application rate of 20-35 lbs./sq.

Ply Sheet: Two or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) or ASTM D226, Type I sheet adhered with approved mopping asphalt applied within the EVT range and at a rate of 20-35 lbs./sq.

Cap Sheet:	(Optional) One ply of Flintglas Mineral Surface Cap Sheet or Flintglas Mineral Surfaced Cap CoolStar adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.
Surfacing:	(Required if no cap sheet is used) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following: 1. Flood coat of hot asphalt with an application rate of 60 lbs./sq. ± 20%; plus gravel or slag with an application rate of 400 lbs./sq. & 300 lbs./sq., respectively. 2. A two part coating consisting of a base coat of APOC #300 Asphalt Fibered Emulsion at rate of 3 gal./sq.; surfaced with 1 gal./sq. APOC#212 Fibered Aluminum Roof Coating.
Maximum Design Pressure:	-45 psf (wood, cementitious wood fiber and gypsum decks) (See General Limitations # 9) -52.5 psf (steel and concrete decks) (See General Limitations # 9)

Membrane Type: BUR

Deck Type 7I: Recover

Deck Description: Wood/Steel/Concrete/Cementitious Wood Fiber/Gypsum

System Type C: All layers of insulation simultaneously attached.

All General and System Limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	**Insulation Fasteners Table 3**	**Fastener Density/ft^2**
ACFoam-II, ENRGY-3, ENRGY 3 25 PSI, H-Shield Minimum 1.5" thick	**N/A**	**N/A**
Approved High Density Wood Fiberboard Minimum ½" thick	**N/A**	**N/A**
Approved Perlite Minimum ¾" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All layers shall be simultaneously attached; see top layer below for fasteners and density.

Top Insulation Layer	**Insulation Fasteners Table 3**	**Fastener Density/ft^2**
Approved Perlite Minimum ¾" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
DensDeck, DensDeck Prime Minimum ¼" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
Approved High Density Wood Fiberboard Minimum ½" thick	**Approved Fastener for Deck Type**	**1:2 ft²**

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: (Optional) Install one ply of All Weather/Empire, Flex-I-Glas or GlasBase base sheet directly over the top layer of insulation. Adhere with any approved mopping asphalt at an application rate of 20-35 lbs./sq.

Ply Sheet: Two or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) or ASTM D226, Type I sheet adhered with approved mopping asphalt applied within the EVT range and at a rate of 20-35 lbs./sq.

Cap Sheet:	(Optional) One ply of Flintglas Mineral Surface Cap Sheet or Flintglas Mineral Surfaced Cap CoolStar adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.
Surfacing:	(Required if no cap sheet is used) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following: 1. Flood coat of hot asphalt with an application rate of 60 lbs./sq. ± 20%; plus gravel or slag with an application rate of 400 lbs./sq. & 300 lbs./sq., respectively. 2. A two part coating consisting of a base coat of APOC #300 Asphalt Fibered Emulsion at rate of 3 gal./sq.; surfaced with 1 gal./sq. APOC#212 Fibered Aluminum Roof Coating.
Maximum Design Pressure:	-45 psf (wood, cementitious wood fiber and gypsum decks) (See General Limitation #9) -52.5 psf (steel and concrete decks) (See General Limitation #9)

Membrane Type: BUR

Deck Type 7I: Recover

Deck Description: Wood/Steel/Concrete

System Type D: All layers of insulation and base sheet simultaneously attached.

All General and System Limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	**Insulation Fasteners Table 3**	**Fastener Density/ft^2**
ACFoam-II, ENRGY 3, ENRGY 3 25 PSI, H-Shield Minimum 1.5" thick	**N/A**	**N/A**
Approved High Density Wood Fiberboard Minimum ½" thick	**N/A**	**N/A**
Approved Perlite Minimum ¾" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners Table 3**	**Fastener Density/ft^2**
Approved High Density Wood Fiberboard Minimum ½" thick	**N/A**	**N/A**
Approved Perlite Minimum ¾" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Base Sheet: One ply of All Weather/Empire, Flex-I-Glas, Flex-I-Glas FR or GlasBase mechanically attached as detailed below.

Fastening (wood & steel):

Fastening #1: OMG #12 Standard Roofgrip or #14 Roofgrip fasteners with OMG 3 in. Round Metal Plates, Dekfast #14 Dekfast #15 HS with Dekfast Galvalume Steel Hex Plates spaced 4" o.c. at a 4" side lap and two staggered rows in the center of the sheet, 24" o.c.

Fastening (concrete): See #1 above using #14 or #15 fasteners only.

Ply Sheet:	Two or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) or ASTM D226, Type I sheet adhered with approved mopping asphalt applied within the EVT range and at a rate of 20-35 lbs./sq.
Cap Sheet:	(Optional) One ply of Flintglas Mineral Surface Cap Sheet or Flintglas Mineral Surfaced Cap CoolStar adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.
Surfacing:	(Required if no cap sheet is used) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following: 1. Flood coat of hot asphalt with an application rate of 60 lbs./sq. ± 20%; plus gravel or slag with an application rate of 400 lbs./sq. & 300 lbs./sq., respectively. 2. A two part coating consisting of a base coat of APOC #300 Asphalt Fibered Emulsion at rate of 3 gal./sq.; surfaced with 1 gal./sq. APOC#212 Fibered Aluminum Roof Coating.
Maximum Design Pressure:	-45 psf (See General Limitation #9)

Membrane Type: BUR

Deck Type 7: Recover

Deck Description: Wood/Steel/Concrete/Lightweight Concrete/Gypsum

System Type E: Base sheet mechanically fastened, over smooth surface roof system only.

All General and System Limitations apply.

Base Sheet: All Weather/Empire, Flex-I-Glas, Flex-I-Glas FR or GlasBase base sheet mechanically attached as detailed below.

Fastening ***(wood)***: Base sheet shall be lapped 4" and fastened with approved roofing nails and tin caps 9" o.c. in the lap and two rows staggered in the center of the sheet 12" o.c. ***(Maximum Design Pressure –45 psf, See General Limitation #9.)***

Fastening ***(wood, steel)***:
OMG #12 Standard Roofgrip or #14 Roofgrip fasteners with OMG 3 in. Round Metal Plates, Dekfast #12, Dekfast #14 or Dekfast #15 HS with Dekfast Galvalume Steel Hex Plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 24" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)

Fastening ***(concrete)***: OMG #14 Roofgrip fasteners with OMG 3 in. Round Metal Plates, Dekfast #14 or Dekfast #15 HS with Dekfast Galvalume Steel Hex Plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 24" o.c. ***(Maximum Design Pressure –45 psf, See General Limitation #9.)***

Fastening ***(LWC)***: (All Weather/Empire Base Sheet Only) ES Products FM-90 Assembled Base Sheet Fasteners at a 7" o.c. in the 4" side lap and two evenly divided, staggered rows in the center of the sheet 7" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)

Fastening ***(gypsum)***: Fastening #1: FM-90 Assembled Base Sheet Fasteners spaced 7½" o.c. in min. 2" side lap and one row in center of the sheet, 7½" o.c.
(Maximum Design Pressure –45 psf, See General Limitation #9.)
Fastening #2: FM-90 Assembled Base Sheet Fasteners spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 12" o.c.
(Maximum Design Pressure –60 psf, See General Limitation #9.)

Ply Sheet: Two or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) or ASTM D226, Type I sheet adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.

Cap Sheet: (Optional) One ply of Flintglas Mineral Surface Cap Sheet or Flintglas Mineral Surfaced Cap CoolStar adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.

Surfacing: (Required if no cap sheet is used) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. Flood coat of hot asphalt with an application rate of 60 lbs./sq. ± 20%; plus gravel or slag with an application rate of 400 lbs./sq. & 300 lbs./sq., respectively.
2. A two part coating consisting of a base coat of APOC #300 Asphalt Fibered Emulsion at rate of 3 gal./sq.; surfaced with 1 gal./sq. APOC#212 Fibered Aluminum Roof Coating.

Maximum Design Pressure: See Fastening Requirements above.

Membrane Type: BUR

Deck Type 7: Recover

Deck Description: Concrete

System Type F: Base sheet adhered with approved asphalt.

All General and System Limitations apply.

Base Sheet:	Install one ply of All Weather/Empire, Flex-I-Glas or GlasBase base sheet directly to the concrete substrate. Adhere with any approved mopping asphalt at an application rate of 20-35 lbs./sq. or spot or strip mopped.
Ply Sheet:	Two or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) or ASTM D226, Type I sheet adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.
Cap Sheet:	(Optional) One ply of Flintglas Mineral Surface Cap Sheet or Flintglas Mineral Surfaced Cap CoolStar adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.
Surfacing:	(Required if no cap sheet is used) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following: 1. Flood coat of hot asphalt with an application rate of 60 lbs./sq. ± 20%; plus gravel or slag with an application rate of 400 lbs./sq. & 300 lbs./sq., respectively. 2. A two part coating consisting of a base coat of APOC #300 Asphalt Fibered Emulsion at rate of 3 gal./sq.; surfaced with 1 gal./sq. APOC#212 Fibered Aluminum Roof Coating.
Maximum Design Pressure:	-240 psf (-45 psf when spot or strip mopped) (See General Limitation #9)

RECOVER SYSTEM LIMITATIONS:

1. All System Limitations and General Limitations shall apply. See specific deck type Notice of Acceptance for deck type System Limitations.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.
   Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered 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 9N-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE