MIAMI-DADE

BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908

NOTICE OF ACCEPTANCE (NOA)

CertainTeed Corporation (PA)
1400 Union Meeting Road
Blue Bell, PA 19422

SCOPE:
This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) 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 Division (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. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division 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 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 consists of pages 1 through 20.
The submitted documentation was reviewed by Frank Zuloaga, RRC

PRODUCT CONTROL ACCEPTED

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Built-Up Roofing
Material:	Fiberglass
Deck Type:	Recover
Maximum Design Pressure	**-355 psf**
Fire Classification:	See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
All Weather/Empire Base Sheet	36" x 72'; Roll weight: 86 lbs. (2 squares)	ASTM D 2626 UL Type 15	Asphalt coated, organic base sheet.
Flintglas® Mineral Surfaced Cap Sheet	36" X 36'; 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® Ply Sheet Type IV or VI	36" x 180'; 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 or Flex-I-Glas FR Base Sheet	36" x 108'; Roll weight: 90 lbs. (3 squares)	ASTM D 5147	SBS Modified, fiberglass reinforced base sheet.
GlasBase™ Base Sheet	36" x 108'; Roll weight: 69 lbs. (3 squares)	ASTM D 4601 UL Type G2	Asphalt coated, fiberglass base sheet.
No. 15 Perforated Felt	36" x 144', Roll weight: 90 lbs. (4 square)	ASTM D 226	Organic asphalt saturated felt.
Yosemite® Mineral Surfaced Cap Sheet	36" x 36'; Roll weight: 90 lbs. (1 square)	ASTM D 249 UL Type 30	Mineral Surfaced organic cap and buffer sheet.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
PYROX, White Line	Polyisocyanurate foam insulation	Apache Products Co.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ACFoam II	Polyisocyanurate foam insulation	Atlas Energy Products
High Density Wood Fiberboard	Wood fiber insulation board	generic
Perlite Insulation	Perlite insulation board	generic
ISO 95+	Polyisocyanurate foam insulation	Firestone
Dens Deck	Water resistant gypsum board	G-P Gypsum Corp.
ENRGY-2, PSI 25	Polyisocyanurate foam insulation	Johns Manville
ENRGY-2 PLUS	Polyisocyanurate foam / wood fiberboard composite insulation	Johns Manville
FiberGlass Roof Insulation	Glass fiber/Mineral fiber insulation	Johns Manville
ISORoc	Polyisocyanurate foam / rockwool composite insulation	Johns Manville
Paroc Cap Board	Rockwool insulation	Partek, Inc.
Multi-Max & FA	Polyisocyanurate roof insulation	RMax, Inc.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Dekfast Fasteners #12, #14 & #15	Insulation fastener for wood, steel and concrete decks		Construction Fasteners Inc.
2.	Dekspike Fasteners	Insulation fastener for concrete decks		Construction Fasteners Inc.
3.	Dekfast Hex Plate	Galvalume hex stress plate.	2 7/8" x 3 ¼"	Construction Fasteners Inc.
4.	Dekfast Lock Plate	Polypropylene locking plate.	3" x 3 ¼"	Construction Fasteners Inc.
5.	#12, #14 Roofgrip Fasteners	Insulation fastener for concrete, steel or wood decks.		ITW Buildex Corp.
6.	Metal Plate	Galvalume stress plate.	3" round 3" square	ITW Buildex Corp.
7.	Gearlok Plastic Plate	Polypropylene round plate	3.2"	ITW Buildex Corp.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
8.	CD-10	Insulation fastener for concrete decks.		Olympic Mfg. Group
9.	Fluted Nail (Con-Tite)	Insulation fastener		Olympic Mfg. Group
10.	Olympic Fastener #12, #14	Insulation fastener		Olympic Mfg. Group
11.	Olympic Fastener ASAP	Pre-assembled Insulation fastener and plate		Olympic Mfg. Group
12.	Olympic Polypropylene	Polypropylene plastic plate	3.25" round	Olympic Mfg. Group
13.	Olympic G-2	Galvalume AZ55 steel plate	3.5" round	Olympic Mfg. Group
14.	Olympic Standard	Galvalume AZ50 steel plate	3" round	Olympic Mfg. Group
15.	Rawl Drive/Spike	Insulation fastener for concrete decks		Powers Fasteners, Inc.
16.	Rawl Plate	Galvalume AZ55 steel plate	3" round	Powers Fasteners, Inc.
17.	HD Insul-Fixx Fastener	Insulation fastener for use in steel and concrete decks		SFS Stadler
18.	Insul-Fixx S	Galvalume AZ55 stress plate	3" round	SFS Stadler
19.	Insul-Fixx P	Polyethylene stress plate	3" round	SFS Stadler
20.	Tru-Fast HD	Insulation fastener for concrete decks		The Tru-Fast Corp.
21.	Tru-Fast Plates	Galvalume AZ55 steel plate	3" round	The Tru-Fast Corp.
22.	Tru-Fast MP-3	Galvalume AZ50 steel plate	3.23" round	The Tru-Fast Corp.
23.	Tru-Fast Plates	Polyethylene plastic plate	3" round	The Tru-Fast Corp.
24.	FM-30, FM-45, FM-60, FM-90 Fasteners	Base ply fastening systems for lightweight concrete decks.		ES Products, Inc.
25.	Nail-Tite Type 'A', Type 'R'	Galvanized steel base ply fastener for gypsum decks		ES Products, Inc.
26.	Polymer Gyptec	Glass reinforced Nylon insulation fastener for gypsum & CWF decks.		ITW Buildex Corp.
27.	Polymer Gyptec Metal Plate	Galvalume stress plate	3" round	ITW Buildex Corp.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
28.	NTB Magnum	Glass reinforced Nylon insulation fastener for gypsum & CWF decks with barbs.		Olympic Mfg. Group
29.	NTB Plate	Galvalume stress plate	3" round	Olympic Mfg. Group
30.	Lite-Deck	Insulation fastener for CWF and Gypsum decks.		Olympic Mfg. Group
31.	Lite-Deck Plate	Galvalume stress plate	3" round	Olympic Mfg. Group
32.	Powerlite	Insulation fastener for CWF and Gypsum decks.		Powers Fasteners, Inc.
33.	Powerlite Plates	Galvalume AZ55 steel plate	3" round	Powers Fasteners, Inc.
34.	Powerlite Lap Plates	Galvalume AZ55 steel plate	2" round	Powers Fasteners, Inc.
35.	Base-Lok Fastener	Nylon base sheet fastener.		Simplex Nails & Fasteners

EVIDENCE SUBMITTED:

Test Agency/Identifier	Name	Report	Date
Applied Research Laboratories	Physical Properties	28013	06/02/87
Factory Mutual Research Corp.	Insulation Fastening Requirements	FMRC 1996	01/01/96
Factory Mutual Research Corp.	FMRC 4470	J.I. #3Y8A1.AM	03/23/96
Underwriters Laboratories, Inc.	Fire Classification Compliance	R11656	07/13/87
United States Testing Company, Inc.	ASTM D 5147 ASTM D 5147	97457-4 97-457-2R	06/03/88 12/02/87

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.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners Table 3	Fastener Density/ft^2
Apache Pyrox **Minimum 1.3" thick**	**N/A**	**N/A**
AC-Foam II, ENRGY 2, PSI-25, Isotherm R **Minimum 1.5" thick**	**N/A**	**N/A**
High Density Wood Fiberboard **Minimum ½" thick**	**N/A**	**N/A**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
Fiberglas **Minimum $^{15}/_{16}$" thick**	**N/A**	**N/A**
Dens Deck **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.

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: Olympic #12 or #14 Screws, Dekfast #12, #14 or #15, or Insulfixx #12 or #14 and metal 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: Olympic #12 or #14 Screws, Dekfast #12, #14 or #15, or Insulfixx #12 or #14 and metal 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: Olympic #14 Screws, Dekfast #14 or #15, or Insulfixx #12 or #14 and metal 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: Olympic #14 Screws, Dekfast #14 or #15, or Insulfixx #14 and metal 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 Base Ply 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: Simplex Tube-Lok fasteners with minimum 3" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 18" o.c. ***(Maximum Design Pressure –52.5 psf, See General Limitation #9.)*** Fastening #2: FM-90 Base Ply Fasteners or Simplex Tube-Lok fasteners with minimum 3" diameter plate 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 #3: FM-90 Base Ply Fasteners or Simplex Tube-Lok fasteners with minimum 3" diameter plate 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.)***
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 of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) or #15 Asphalt Perforated Felt ply 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 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) 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 Static Asphalt Fibered Emulsion at rate of 3 gal./sq. or Monoform compound; surfaced with 1 gal./sq. Sta-Kool non-fibered aluminum coating or fibered APOC No. 212.

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.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners Table 3	Fastener Density/ft^2
Pyrox		
Minimum 1.3" thick	**N/A**	**N/A**
AC-Foam II, Isotherm R, E'NRG'Y-2 Composite, E'NRG'Y-2, PSI-25		
Minimum 1.5" thick	**N/A**	**N/A**
High Density Wood Fiberboard		
Minimum ½" thick	**N/A**	**N/A**
Perlite		
Minimum ¾" thick	**N/A**	**N/A**
Fiberglas		
Minimum $^{15}/_{16}$" thick	**N/A**	**N/A**
Dens Deck		
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.

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.

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 of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) or #15 Asphalt Perforated Felt ply 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 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) 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 Static Asphalt Fibered Emulsion at rate of 3 gal./sq. or Monoform compound; surfaced with 1 gal./sq. Sta-Kool non-fibered aluminum coating or fibered APOC No. 212.
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/ft^2
Pyrox **Minimum 1.3" thick**	**Approved Fastener for Deck Type**	**1:2 ft^2**
ACFoam-II, ENRGY 2, PSI-25 **Minimum 1.5" thick**	**Approved Fastener for Deck Type**	**1:2 ft^2**
Perlite **Minimum ¾" thick**	**Approved Fastener for Deck Type**	**1:2 ft^2**
High Density Wood Fiberboard **Minimum ½" thick**	**Approved Fastener for Deck Type**	**1:2 ft^2**
Fiberglas **Minimum $^{15}/_{16}$" thick**	**Approved Fastener for Deck Type**	**1:2 ft^2**

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/ft^2
High Density Wood Fiberboard **Minimum ½" thick**	**N/A**	**N/A**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
Dens-Deck **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 ft^2. 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 #15 Asphalt Perforated Felt ply 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 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) 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 Static Asphalt Fibered Emulsion at rate of 3 gal./sq. or Monoform compound; surfaced with 1 gal./sq. Sta-Kool non-fibered aluminum coating or fibered APOC No. 212.
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**
Pyrox **Minimum 1.3" thick**	**N/A**	**N/A**
ACFoam-II, Isotherm R, ENRGY-2, PSI-25 **Minimum 1.5" thick**	**N/A**	**N/A**
High Density Wood Fiber **Minimum ½" thick**	**N/A**	**N/A**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
Fiberglas **Minimum $^{15}/_{16}$" thick**	**N/A**	**N/A**
Dens-Deck **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**
Perlite **Minimum ¾" thick**	**Approved Fastener for Deck Type**	**1:2 ft^2**
Dens-Deck **Minimum ¼" thick**	**Approved Fastener for Deck Type**	**1:2 ft^2**
High Density Wood Fiberboard **Minimum ½" thick**	**Approved Fastener for Deck Type**	**1:2 ft^2**

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 #15 Asphalt Perforated Felt ply 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 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) 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 Static Asphalt Fibered Emulsion at rate of 3 gal./sq. or Monoform compound; surfaced with 1 gal./sq. Sta-Kool non-fibered aluminum coating or fibered APOC No. 212.
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**
Pyrox **Minimum 1.3" thick**	**N/A**	**N/A**
ACFoam-II, Isotherm R, ENRGY-2, PSI-25 **Minimum 1.5" thick**	**N/A**	**N/A**
High Density Wood Fiber **Minimum ½" thick**	**N/A**	**N/A**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
Fiberglas **Minimum $^{15}/_{16}$" thick**	**N/A**	**N/A**
Dens-Deck **Minimum ¼" thick**	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners Table 3**	**Fastener Density/ft^2**
High Density Wood Fiber **Minimum ½" thick**	**N/A**	**N/A**
Perlite **Minimum ¾" thick**	**N/A**	**N/A**
Fiberglas **Minimum $^{15}/_{16}$" thick**	**N/A**	**N/A**
Dens-Deck **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: Olympic Screws #12 or #14 and metal plates, Dekfast #14 or #15 and metal plates or SFS Insulfixx #12 or #14 and metal 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 #15 Asphalt Perforated Felt ply 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 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) 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 Static Asphalt Fibered Emulsion at rate of 3 gal./sq. or Monoform compound; surfaced with 1 gal./sq. Sta-Kool non-fibered aluminum coating or fibered APOC No. 212.

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)***:
Olympic #12 or #14 Screws, Dekfast #12, #14 or #15, or Insulfixx #12 or #14 and metal 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)***: Olympic #14 Screws, Dekfast #14 or #15, or Insulfixx #12 or #14 and metal 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 Base Ply 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: Simplex Tube-Lok fasteners with minimum 3" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 18" o.c. ***(Maximum Design Pressure –52.5 psf, See General Limitation #9.)***
Fastening #2: FM-90 Base Ply Fasteners or Simplex Tube-Lok fasteners with minimum 3" diameter plate 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 #3: FM-90 Base Ply Fasteners or Simplex Tube-Lok fasteners with minimum 3" diameter plate 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 of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) or #15 Asphalt Perforated Felt ply 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 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) 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 Static Asphalt Fibered Emulsion at rate of 3 gal./sq. or Monoform compound; surfaced with 1 gal./sq. Sta-Kool non-fibered aluminum coating or fibered APOC No. 212.

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 of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) or #15 Asphalt Perforated Felt ply 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 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) 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 Static Asphalt Fibered Emulsion at rate of 3 gal./sq. or Monoform compound; surfaced with 1 gal./sq. Sta-Kool non-fibered aluminum coating or fibered APOC No. 212.

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 with Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**

END OF THIS ACCEPTANCE