

#### DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION NOTICE OF ACCEPTANCE (NOA)

GenFlex Roofing Systems A Division of Firestone Building Products Company, LLC 200 4th Ave. South Nashville, TN 37201

#### 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:** GenFlex EZ TPO Single Ply Roof Systems over Concrete Decks.

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA consists of pages 1 through 93.

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

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## **ROOFING SYSTEM APPROVAL**

**Category:** Roofing Sub-Category: Single Ply Roofing EZ TPO Peel and Stick HW Material: **Deck Type:** Concrete Maximum Design Pressure: See specific assemblies

### TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

		TABLE I	
<b>Product</b>	<b>Dimensions</b>	<u>Test</u> Specifications	<b>Product Description</b>
EZ TPO Peel and Stick HW	Various	TAS 131	Reinforced TPO peel and stick membrane.
TPO Reinforced Curb Corner	Various	TAS 131	TPO curb flashing
18" Curb Flashing	Various	TAS 131	TPO curb flashing
TPO Inside/Outside Corner	Various	TAS 131	Molded TPO for corner flashing
TPO Large Pipe Flashing	Various	TAS 131	TPO flashing for large round penetrations
TPO T-Joint Cover	Various	TAS 131	TPO flashing for T-joints
TPO Penetration Kit	Various	TAS 131	A penetration sealing kit for UltraPly TPO
TPO Walkway Pad	Various	TAS 131	TPO walkway pad
TPO Coated Metal	Various	TAS 131	TPO laminated to hot-dipped galvanized steel for flashing
TPO Premium Walkway Pad	Various	TAS 131	TPO walkway pad
TPO Reinforced Split Pipe Boot	Various	TAS 131	TPO flashing for round penetrations 1" to 9" in diameter
TPO 8" Reinforced Cover Strip	Various	TAS 131	8" wide 60 mil TPO cover strip
TPO Universal Pipe Boot	Various	TAS 131	TPO flashing for round penetrations 1" to 6" in diameter
TPO Unsupported Flashing	Various	TAS 131	Unreinforced TPO used for flashing
SBS Base	3.3" x 50'	ASTM 6163	Fiberglass reinforced SBS base sheet
SBS Poly Torch	39.4" x 33'6"	ASTM D 6222	Polyester reinforced modified bitumen membrane. Torch applied.
SBS Glass Torch Base	39.4" x 33'10"	ASTM D 6163	Modified bitumen base sheet with a burn-off film and reinforced with non-woven fiberglass mat.
SBS Premium Base	39.4" x 50'	ASTM D 6164	Polyester reinforced SBS modified bitumen ply with sanded surfaces
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### TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: Table 1

		TABLE T Test	
Product	Dimensions	Specifications	<b>Product Description</b>
SBS Poly Base	39.4" x 50'	ASTM D 6164	Polyester reinforced SBS modified bitumen membrane with sanded surfaces.
MB Base	36 x 108'	ASTM D 4601	Fiberglass reinforced base sheet, asphalt coated on both sides. Applied in hot asphalt or mechanically attached.
BASEGARD SA	39.4" x 65' 3"	ASTM D6163	Fiberglass reinforced SBS modified bitumen, self-adhering base sheet with a smooth sanded surface.
APP 80 Glass Base	39.4" x 65'4"	ASTM D6509	Fiberglass reinforced modified bitumen, smooth surfaced base sheet.
V-Force	45" x 134"	ASTM D 5147, 1876,1970 and ASTM E 96, 2178	A vapor retarder made of SBS modified bitumen adhesive laminated to a woven high density polyethylene top surface.
I.S.O. Stick	5 gal & 1500 ml	Proprietary	A dual component polyurethane adhesive.
I.S.O. Twin Pack Insulation Adhesive	1500 ml	Proprietary	A dual component polyurethane adhesive.
I.S.O. Fix II	30 lbs.	Proprietary	A single component polyurethane adhesive.
I.S.O. Spray R	15 gal pail & 55 gal drum	Proprietary	A two-part polyurethane adhesive
SA Primer	5 gal.	Proprietary	Polymer based primer



# **APPROVED INSULATIONS:**

TABLE 2				
Product Name	<b>Product Description</b>	Manufacturer		
		(With Current NOA)		
GenFlex ISO Insulation (Flat),	Polyisocyanurate foam insulation	Firestone Bldg. Products		
GenFlex ISO Insulation (Tapered)				
GenFlex HD ISO	Polyisocyanurate with a coated	Firestone Bldg. Products		
	fiberglass facer			
GenFlex HD Composite ISO	Polyisocyanurate with a coated	Firestone Bldg. Products		
	fiberglass facer composite insulation.			
DensDeck Prime	Silicon treated gypsum	Georgia Pacific Gypsum LLC		
Coated Glass Facer (Flat), Coated	Polyisocyanurate foam core laminated	Firestone Bldg. Products		
Glass Facer (Tapered)	to a coated fiberglass facer	-		
SECUROCK Gypsum Fiber Roof	Rigid, gypsum-based board stock	USG Corp.		
Board		-		

# **APPROVED FASTENERS:**

Fastener <u>Number</u>	Product <u>Name</u>	TABLE 3ProductDescription	Dimensions	Manufacturer <u>(With Current NOA)</u>
1.	Firestone Heavy-Duty	#15 Fastener for steel, Wood, concrete decks	N/A	Firestone Bldg. Products
2.	Concrete Drive Fastener	Structural concrete fastener	Various	Firestone Bldg. Products
3.	Insulation Fastening Plate	Galvalume insulation plate	3" diameter	Firestone Bldg. Products



# **EVIDENCE SUBMITTED:**

<b>Test Agency</b>	<b>Test Identifier</b>	<b>Description</b>	Date
Underwriters Laboratories Inc.	03NK34486	UL 790	03/22/05
Factory Mutual Research	3004249	4470	11/03/99
Corporation	3014031	4470	07/22/02
	3029384	4470	06/07/10
	3030650	4470	07/10/09
	3033218	4470	08/12/08
	3036642	4470	10/09/09
	3039133	4470	04/07/11
	3036747	4470	02/12/10
	3040535	4470	10/05/10
	3035017	4470	08/22/12
	3038191	4470	08/04/11
	3035560	4470	01/11/10
	3047700	4470	08/16/13
	3047398	4470	08/15/13
	3042666	4470	08/14/12
	3041939	4470	08/14/12
	3044047	4470	05/17/12
	3042665	4470	05/04/12
	797-07096-267	4470	08/22/12
	797-05604-267	4470	06/07/10
	797-08513-267	4470	07/15/13
	797-05830-267	4470	08/30/10
	797-07680-267	4470	09/12/12
Trinity ERD	F8300.07.08	TAS 131/ ASTM D6878	07/30/08
	F8300.11.08-R3	TAS 131/ ASTM D6878	02/25/11
PRI Construction Materials	FBP-038-02-01	ASTM D6164	12/27/10
Technologies, LLC	FBP-038-02-02	ASTM D6164	12/27/10
	FBP-044-02-01, R10	TAS 114 H, J	10/04/12
	FBP-053-02-01	TAS 110/ASTM D6131	10/08/12
	FBP-054-02-04, R1	FM 4474 B/TAS 114 D	02/07/13
	FBP-064-02-01	ASTM D 6509	08/02/12
	FBP-076-02-01	TAS 110	10/23/12
	FBP-085-02-01, R1	FM 4474 D/TAS 114 J	10/04/12
	FBP-115-02-01	ASTM D 1644 & 2196	04/04/13
	FBP-149-02-01	FM 4474 D	12/18/13
	FBP-154-02-02	FM 4474 D	12/18/13
	FBP-158-02-01	FM 4474 D	04/28/14
	FBP-162-02-01	ASTM D 1970	10/02/13
	FBP-165-02-01	FM 4474/TAS 114 J	04/28/14
	FBP-166-02-01	ASTM D6163	05/15/14
	FBP-175-02-01	FM 4474 D/TAS 114 J	04/28/14
	FBP-176-02-01	ASTM D 4601	07/15/14
	FBP-178-02-03	FM 4474 B/TAS 114 D	07/23/14
	FBP-185-02-02	FM 4474 B/TAS 114 D	07/31/14
	FBP-206-02-01	FM 4474 D/TAS 114 J	02/02/15
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Test Agency	V
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<u>Test Identifier</u>	<b>Description</b>	Date
FBP-208-02-01	TAS 131/ASTM D6878	04/06/15
FBP-214-02-01.1	ASTM C 1289	11/09/16
FBP-214-02-02	ASTM C 1289	02/10/15
FBP-222-02-03	TAS 114 C	04/01/15
FBP-225-02-01	FM 4474 D/TAS 114 J	03/19/15
FBP-233-02-03	FM 4474 D/TAS 114 J	06/01/15
FBP-246-02-01	ASTM C 1289	10/05/15
FBP-260-02-02	FM 4474 B	10/09/15
FBP-280-02-01	ASTM C 1289	04/27/16
FBP-293-02-01	ASTM D 4601	04/27/16
FBP-315-02-01	ASTM C 1289	10/28/16



#### **APPROVED ASSEMBLIES**

Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(1):	One or more layers of insulation adhered with approved adhesive; membrane Fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum 1" thick	N/A	N/A

Note: Base insulation shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide ribbons spaced 12" o.c. or with I.S.O. Stick applied in  $\frac{3}{4}$ " to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		
Minimum 1" thick	N/A	N/A

Note: Optional middle insulation shall be adhered to the previous insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide ribbons spaced 12" o.c. or I.S.O. Stick applied in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

One or more layers		
Additional Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation Tapered, GenFlex ISO Insulation	n, Coated Glass Facer	
Minimum 1" thick	NA	NA

Note: Optional additional middle insulation shall be adhered to the previous insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide ribbons spaced 12" o.c Please refer to Roofing Application Standard RAS 117 for insulation attachment.



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<b>Top Insulation Layer</b>	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
Plywood		•
Minimum 19/32" thick	N/A	N/A

Note: Top Insulation layer shall be adhered to the previous insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-45 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(2):	Vapor Barrier and insulation adhered with approved adhesive; membrane fully adhered.

Vapor Barrier V-Force self-adhered to the primed concrete deck.

Note: Concrete deck shall be primed with primer-Force WB Primer at a rate of 150-200 ft<sup>2</sup>/gal and allowed to dry prior to application of Vapor Barrier.

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

Note: Insulation shall be adhered to the Vapor Barrier using I.S.O. Spray R, I.S.O. Stick or I.S.O. Twin Pack Adhesive, applied in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" on center. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design	
Pressure:	-57.5 psf. using I.S.O. Stick (See General Limitation #9)
	-97.5 psf. using I.S.O. Twin Pack Insulation Adhesive or I.S.O. Spray R (See
	General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type A(3):	Base layer of insulation mechanically fastened, top layer adhered with approved adhesive.

Vapor BarrierOne ply of BASEGARD SA is self-adhered to a concrete deck primed with SA<br/>Primer applied at a rate of 200 ft²/gal.

One or more layers		
<b>Base Insulation Layer</b>	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		0
Minimum 1.5" thick	N/A	N/A

Note: Base Insulation layer shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide ribbons spaced 12" o.c. or I.S.O. Stick applied in  $\frac{3}{4}$ " to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex HD ISO Minimum ½" thick	N/A	N/A
GenFlex HD Composite ISO		
Minimum 2" thick	N/A	N/A

Note: Top insulation layer shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide beads spaced 12" o.c. or I.S.O. Stick applied in continuous <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. See Roofing Application Standard RAS 117 for fastening details.

Membrane:Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld<br/>at the 3" wide side laps.Maximum Design<br/>Pressure:-90 psf. (See General Limitation #7)



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Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	2500 psi or greater structural concrete or concrete plank
System Type A(4):	One or more layers of insulation adhered with approved adhesive; membrane fully adhered.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		
Minimum 1.5" thick	N/A	N/A

Note: Base insulation shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide ribbons, spaced as listed below, Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
DensDeck Prime		
Minimum ¼" thick	N/A	N/A

Note: All subsequent layers of insulation shall be adhered to the previous layer of insulation with I.S.O. Twin Pack Insulation Adhesive applied in <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide ribbons Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.

Maximum Design

Pressure:-127.5 psf. using I.S.O Twin Pack Insulation Adhesive, I.S.O. Fix II or I.S.O. Stick<br/>in ribbons spaced 12" o.c. (See General Limitation #9)<br/>-187.5 psf. using I.S.O Twin Pack Insulation Adhesive, I.S.O. Fix II or I.S.O. Stick<br/>in ribbons spaced 8" o.c. (See General Limitation #9)<br/>-247.5 psf. using I.S.O Twin Pack Insulation Adhesive, I.S.O. Fix II or I.S.O. Stick<br/>in ribbons spaced 4" o.c. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(5):	Vapor Barrier and insulation adhered with approved adhesive; membrane adhered.

Vapor Barrier One ply of APP 80 Glass Base torch adhered to the concrete deck.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum 1.5" thick	N/A	N/A

Note: Base insulation shall be adhered to the vapor barrier I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum 1.5" thick	N/A	N/A

Note: Optional Middle insulation shall be adhered to the base insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation Tapered, Coated Glass Facer Tap	pered	
Minimum <sup>1</sup> / <sub>2</sub> " thick with a <sup>1</sup> / <sub>4</sub> " per ft. taper	N/A	N/A

Note: Optional Top insulation shall be adhered to the previous insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in ½" to ¾" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-142.5 psf. (See General Limitation #9)



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Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(6):	One or more layers of insulation adhered with approved adhesive; membrane Fully adhered.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum 1" thick	N/A	N/A

Note: Base insulation shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		
Minimum 1" thick	N/A	N/A

Note: Optional Middle insulation shall be adhered to the base insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional)	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation Tapered, Coated Glass Facer Tap	ered	
Minimum <sup>1</sup> / <sub>2</sub> " thick with a <sup>1</sup> / <sub>4</sub> " per ft. taper	N/A	N/A

Note: Optional Top insulation shall be adhered to the previous insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide ribbons spaced as listed below. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-142.5 psf. (See General Limitation #9)



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Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(7):	One or more layers of insulation adhered with approved adhesive; membrane Fully adhered.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
ISO 95+ GL, RESISTA, GenFlex ISO Insulation, Coated	l Glass Facer	
Minimum 1" thick	N/A	N/A

Note: Base insulation shall be adhered to the deck with I.S.O. Stick applied in  $\frac{3}{4}$ " to 1" wide ribbons spaced 12" o.c., Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		
Minimum 1" thick	N/A	N/A

Note: Optional Middle insulation shall be adhered to the base insulation layer with I.S.O. Stick Pack Insulation Adhesive applied in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional)	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, GenFlex ISO Insulation Tapered	, Coated Glass Facer, Coate	d Glass
Facer Tapered		
Minimum 1" thick with a ¼" per ft. taper	N/A	N/A

Note: Optional Top insulation shall be adhered to the previous insulation layer with I.S.O. Stick applied in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-142.5 psf. (See General Limitation #9)



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Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(8):	One or more layers of insulation adhered with approved adhesive; membrane fully adhered.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation Minimum 1.5" thick	N/A	N/A

Note: Base Insulation layer shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		· ·
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex HD ISO		
Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A

Note: Additional insulation layers shall be adhered to the previous layer with I.S.O. Twin Pack Insulation Adhesive applied in <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide ribbons spaced 12" o.c Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design	
Pressure:	-157.5 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(9):	One or more layers of insulation adhered with approved adhesive; membrane fully adhered.

One or more layers of any of the following insulations.		
Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation		
Minimum 1.5" thick	N/A	N/A

Note: All Insulation layers shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide ribbons spaced 12" o.c. or with I.S.O. Fix II or I.S.O. Stick applied in  $\frac{3}{4}$ " to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.

Maximum Design Pressure:

-157.5 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(10):	One or more layers of insulation adhered with approved adhesive; membrane adhered.

One or more layers of any of the following insulations. Insulation **Insulation Fasteners** (Table 3) Density/ft<sup>2</sup> **GenFlex ISO Insulation** Minimum 1" thick N/A

Note: Base insulation shall be adhered to the deck with I.S.O. Spray R, I.S.O. Fix II or I.S.O. Stick applied in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons, spaced 12" o.c. or I.S.O. Twin Pack Insulation Adhesive applied in continuous 1/2" to 3/4" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design	
Pressure:	-145 psf. (See General Limitation #9)



Fastener

N/A

Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(11):	One or more layers of insulation adhered with approved adhesive; membrane adhered.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		
Minimum 1" thick	N/A	N/A

Note: Optional Base layer of insulation shall be adhered to the deck with I.S.O. Spray R, I.S.O. Fix II or I.S.O. Stick applied in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons, spaced 12" o.c. or I.S.O. Twin Pack Insulation Adhesive applied in <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide ribbons, spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
DensDeck Prime		
Minimum ¼" thick	N/A	N/A

Note: Top layer of insulation shall be adhered with I.S.O. Stick applied in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld<br/>at the 2" wide side laps.Maximum Design<br/>Pressure:-160 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	2500 psi or greater structural concrete or concrete plank
System Type A(12):	One or more layers of insulation adhered with approved adhesive; membrane fully adhered.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation Minimum 1.5" thick	N/A	N/A

Note: Insulation shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide ribbons spaced as listed below. Please refer to Roofing Application Standard RAS 117 for insulation attachment

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design	
Pressure:	-165 psf. using I.S.O. Twin Pack Insulation Adhesive with ribbons spaced 12"
	o.c. (See General Limitation #9)
	-210 psf. using I.S.O. Twin Pack Insulation Adhesive with ribbons spaced 8"
	o.c. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced		
Deck Type 3I:	Concrete, Insulated		
Deck Description:	Min. 2500 psi structural concrete or concrete plank.		
System Type A(13):	Vapor Barrier and insulation adhered with approved adhesive; membrane adhered.		

Vapor BarrierOne ply of MB Base, SBS Base, SBS Poly Base, or SBS Premium Base fully<br/>adhered to the concrete deck with a full mopping of hot asphalt applied at a rate<br/>of 20 - 25 lbs./square.

One or more layers of any of the following insulations. Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		
Minimum 1" thick	N/A	N/A
Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation Tapered		
Minimum <sup>1</sup> / <sub>2</sub> " thick with a <sup>1</sup> / <sub>4</sub> " per ft. taper	N/A	N/A
Top Insulation Layer (Optional) GenFlex HD ISO	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A
Plywood Minimum 19/32" thick	N/A	N/A
DensDeck Prime Minimum ¼" thick	N/A	N/A

Note: Insulation shall be adhered using I.S.O. Twin Pack Insulation Adhesive in continuous <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide beads spaced 12" o.c., I.S.O. Fix II or I.S.O. Stick applied in continuous <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-172.5 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(14):	Vapor Barrier and insulation adhered with approved adhesive; membrane adhered.

Vapor BarrierOne ply of MB Base, SBS Base, SBS Poly Base or SBS Premium Base fully<br/>adhered to the concrete deck with a full mopping of hot asphalt applied at a rate<br/>of 20 - 25 lbs./square.

One or more layers of any of the following insulations.		
Base Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum 1" thick	N/A	N/A

Note: Base Insulation shall be adhered using I.S.O. Twin Pack Insulation Adhesive in continuous  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide beads spaced 12" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)	Insulation Fasteners To RESISTA)(Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Tapered GenFlex ISO Insulation Facer Tapered		v
Minimum 1" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
DensDeck Prime Minimum ¼" thick	N/A	N/A
Plywood Minimum 19/32" thick	N/A	N/A

Note: Insulation shall be adhered using I.S.O. Twin Pack Insulation Adhesive in continuous  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide beads spaced 12" o.c., See Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design	
Pressure:	-45 psf. for Plywood (See General Limitation #9)
	-60 psf. for DensDeck Prime (See General Limitation #9)



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Membrane Type:	Single Ply, TPO, Reinforced		
Deck Type 3I:	Concrete, Insulated		
Deck Description:	Min. 2500 psi structural concrete or concrete plank.		
System Type A(15):	Vapor Barrier and insulation adhered with approved adhesive; membrane adhered.		

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex HD ISO Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A
DensDeck Prime Minimum ¼" thick	N/A	N/A

Note: Insulation shall be adhered using I.S.O. Twin Pack Insulation Adhesive in continuous <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide beads spaced 12" o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

Membrane:Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld<br/>at the 2" wide side laps.Maximum Design-172.5 psf. (See General Limitation #9)



Vapor BarrierOne ply of SBS Base fully adhered to the concrete deck with a full mopping of<br/>hot asphalt applied at a rate of 20 - 25 lbs./square.

Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	2500 psi or greater structural concrete or concrete plank
System Type A(16):	One or more layers of insulation adhered with approved asphalt; membrane fully adhered.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		2
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer (Optional)	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation tapered		
Minimum <sup>1</sup> / <sub>2</sub> " thick start with a <sup>1</sup> / <sub>4</sub> " per ft. taper	N/A	N/A

Note: Base insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>. All subsequent layers of insulation shall be adhered to the previous layer of insulation in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. 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 used as a top layer shall be placed with the polyisocyanurate side facing down.

Membrane:EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide<br/>side laps.Maximum Design<br/>Pressure:-180 psf. without cover board (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(17):	One or more layers of insulation adhered with approved adhesive; membrane Fully adhered.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer Minimum 1" thick	N/A	N/A
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Note: Base insulation shall be adhered to the deck with I.S.O. Stick applied in  $\frac{3}{4}$ " to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		-
Minimum 1" thick	N/A	N/A

Note: Optional middle insulation shall be adhered to the previous insulation layer with I.S.O. Stick applied in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Additional Middle Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Tapered GenFlex ISO Insulation	n, Coated Glass Facer, Coate	ed Glass
Facer Tapered		
Minimum 1" thick	NA	NA

Note: Optional additional middle insulation shall be adhered to the previous insulation layer with I.S.O. Stick applied in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex HD ISO Minimum ½" thick	N/A	N/A



Note: Top Insulation layer shall be adhered to the previous insulation layer with I.S.O. Stick applied in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 3" wide side laps.
Maximum Design Pressure:	-187.5 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(18):	Vapor Barrier and insulation adhered with approved adhesive; membrane fully adhered.

**Vapor Barrier** V-Force self-adhered to the primed concrete deck with 3" wide side lap.

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of Vapor Barrier.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation Minimum <sup>1</sup> /2" thick	N/A	N/A

Note: Base insulation layer shall be adhered to the Vapor Barrier using I.S.O. Spray R ribbon adhesive, applied in  $\frac{3}{4}$ " to 1" wide ribbons spaced 12" on center. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
DensDeck Prime		
Minimum <sup>1</sup> /4" thick	N/A	N/A

Note: Top insulation layer shall be adhered to the Base insulation layer using I.S.O. Spray R ribbon adhesive, applied in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" on center. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-187.5 psf. (See General Limitation #9)

Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(19):	One or more layers of insulation adhered with approved adhesive; membrane Fully adhered.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum 1" thick	N/A	N/A

Note: Base insulation shall be adhered to the deck with I.S.O. Stick applied in  $\frac{3}{4}$ " to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		-
Minimum 1" thick	N/A	N/A

Note: Optional Middle insulation shall be adhered to the base insulation layer with I.S.O. Stick applied in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Additional Middle Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Tapered, GenFlex ISO Insulation,	Coated Glass Facer, Coat	ed Glass
Facer Tapered		
Minimum 1" thick with a ¼" per ft. taper	N/A	N/A

Note: Additional Optional Middle insulation shall be adhered to the base insulation layer with I.S.O. Stick applied in  $\frac{3}{4}$ " to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
DensDeck Prime Minimum ¼" thick	N/A	N/A



Note: Top insulation shall be adhered to the previous insulation layer with I.S.O. Stick applied in  $\frac{3}{4}$ " to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-45 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	2500 psi or greater structural concrete or concrete plank
System Type A(20):	One or more layers of insulation adhered with approved adhesive; membrane fully adhered.

Use Two (2) base insulation layers		
Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		-
Minimum 1.5" thick	N/A	N/A

Note: Base Insulation layer shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide ribbons spaced 8" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
DensDeck Prime		
Minimum <sup>1</sup> /4" thick	N/A	N/A

Note: All subsequent layers of insulation shall be adhered to the previous layer of insulation using I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide ribbons spaced 8" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as the base layer shall only be used as the base layer with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-195 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(21):	Insulation adhered with approved adhesive; membrane fully adhered.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		
Minimum 1.5" thick	N/A	N/A

Note: Base insulation shall be adhered using I.S.O. Spray R ribbon, applied in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" on center. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
DensDeck Prime		
Minimum ¼" thick	N/A	N/A

Note: Top insulation shall be adhered using I.S.O. Spray R ribbon, applied in  $\frac{3}{4}$ " to 1" wide ribbons spaced 12" on center. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design	
Pressure:	-205 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(22):	Insulation adhered with approved adhesive; membrane fully adhered.

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

Note: Base insulation shall be adhered using I.S.O. Spray R ribbon, applied in  $\frac{3}{4}$ " to 1" wide ribbons spaced 12" on center. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design	-
Pressure:	-210 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(23):	One or more layers of insulation adhered with approved adhesive; membrane Fully adhered.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer	N/A	N/A
Minimum 1" thick	IN/A	IN/A

Note: Base insulation shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		·
Minimum 1" thick	N/A	N/A

Note: Optional Middle insulation shall be adhered to the base insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

One or two layers of the following: Additional Middle Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Tapered GenFlex ISO Insulation	, Coated Glass Facer	
Minimum $\frac{1}{2}$ " thick with a $\frac{1}{4}$ " per ft. taper	N/A	N/A

Note: Additional Optional Middle insulation shall be adhered to the base insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Additional Second Middle Insulation Layer	Insulation Fasteners	Fastener
(Optional)	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Tapered GenFlex ISO Insulation,	Coated Glass Facer, Coated	l Glass
Facer Tapered		
Minimum <sup>1</sup> / <sub>2</sub> " thick with a <sup>1</sup> / <sub>4</sub> " per ft. taper	N/A	N/A



Note: Optional Second Middle insulation shall be adhered to the previous insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
DensDeck Prime Minimum ¼" thick	N/A	N/A

Note: Top insulation of insulation shall be adhered to the previous layer of insulation using I.S.O. Twin Pack Insulation Adhesive applied in ½" to ¾" wide ribbons spaced 8" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design	
Pressure:	-240 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(24):	Vapor Barrier and insulation adhered with approved adhesive; membrane fully adhered.

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of Vapor Barrier.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation Minimum 1.5" thick	N/A	N/A

NOTE: Base insulation shall be adhered to the Vapor Barrier using I.S.O. Twin Pack Insulation Adhesive, applied in <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide ribbons spaced 12" on center. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		-
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
DensDeck Prime	()	j,
Minimum ¼" thick	N/A	N/A

Note: All subsequent layers of insulation shall be adhered to the previous layer of insulation using I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design	
Pressure:	-232.5 psf. (See General Limitation #9)



Vapor BarrierSBS Poly Torch or SBS Glass Torch Base membrane is torch adhered to the<br/>primed concrete deck.

Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	2500 psi or greater structural concrete or concrete plank
System Type A(25):	One or more layers of insulation adhered with approved adhesive; membrane fully adhered.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
DensDeck Prime Minimum ¼" thick	N/A	N/A

Note: Base insulation shall be adhered to the deck , and top insulation shall be adhered to the base insulation, in full mopping of approved asphalt within the EVT range and at a rate of 20 to 25 lbs/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-247.5 psf. with coverboard (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(26):	One or more layers of insulation adhered with approved adhesive; membrane fully adhered.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation Minimum 1.5" thick	N/A	N/A
Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
DensDeck Prime Minimum ¼" thick	N/A	N/A

Note: (Optional) Concrete deck shall be optionally primed with ASTM D 41 asphalt primer at a rate of <sup>3</sup>/<sub>4</sub> to 1 gal/sq. and allowed to dry prior to application of insulation. Insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20 to 25 lbs/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld<br/>at the 2" wide side laps.Maximum Design-247.5 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(27):	One or more layers of insulation adhered with approved adhesive; membrane fully adhered.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation Minimum 1.5" thick	N/A	N/A

Note: Base Insulation layer shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex HD ISO		
Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A

Note: Additional insulation layers shall be adhered to the previous layer with I.S.O. Twin Pack Insulation Adhesive applied in <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-247.5 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(28):	One or more layers of insulation adhered with approved adhesive; membrane fully adhered.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation	<b>N</b> 7/4	
Minimum 1.5" thick	N/A	N/A

Note: Base Insulation Layer shall be adhered with I.S.O. Fix II, I.S.O. Stick applied in continuous <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		
Minimum 1.5" thick	N/A	N/A

Note: Optional Middle Insulation Layer shall be adhered with I.S.O. Fix II or I.S.O. Stick applied in continuous 3/4 to 1 in. wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex HD ISO		
Minimum <sup>1</sup> /2" thick	N/A	N/A

Note: Top Insulation layer shall be adhered with I.S.O. Fix II or I.S.O. Stick applied in continuous 3/4 to 1 in. wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation Adhesive

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design	
Pressure:	-300 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(29):	One or more layers of insulation adhered with approved adhesive; membrane fully adhered.

One or more layers of any of the following insulations.

Insulation	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex HD ISO Minimum ½" thick	N/A	N/A

Note: All insulation layers shall be adhered with I.S.O. Fix II applied in continuous <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 4" o.c. or I.S.O. Stick applied in continuous <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld<br/>at the 2" wide side laps.Maximum Design<br/>Pressure:-300 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(30):	One or more layers of insulation adhered with approved adhesive; membrane fully adhered.

One or more layers of any of the following insulations.

Base Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
Coated Glass Facer		
Minimum 1.5" thick	N/A	N/A
Middle Insulation Layer (Optional)	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
Coated Glass Facer		
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer (Optional)	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex HD ISO		
Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A

Note: Base insulation shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide ribbons spaced 6" o.c. or with I.S.O. Stick or I.S.O. Fix II applied in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons, spaced 6" o.c. Optional middle insulation layer shall be adhered to the previous layer of insulation using the same method of adhesion as the base layer. Optional top layer of insulation shall be adhered with I.S.O. Stick or I.S.O. Fix II applied in continuous <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 6" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design	
Pressure:	-277.5 psf. for EZ TPO Peel and Stick HW adhered to Coated Glass Facer (See
	General Limitation #9)
	-300 psf. EZ TPO Peel and Stick HW adhered to GenFlex HD ISO (See General
	Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(31):	One or more layers of insulation adhered with approved adhesive; membrane Fully adhered.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer	<b>N</b> 7/4	<b>N</b> T/ A
Minimum 1" thick	N/A	N/A

Note: Base insulation shall be adhered to the deck with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		
Minimum 1" thick	N/A	N/A

Note: Optional middle insulation shall be adhered to the previous insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in ½" to ¾" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Additional Middle Insulation Layer (Optional)	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation Tapered, GenFlex ISO Insulation	, Coated Glass Facer	
Minimum 1" thick	NA	NA

Note: Optional second additional middle insulation shall be adhered to the previous insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Additional Second Middle Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Tapered GenFlex ISO Insulation,	<b>Coated Glass Facer, Coat</b>	ed Glass
Facer Tapered		
Minimum 1" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex HD ISO		
Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A
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Note: Top Insulation layer shall be adhered to the previous insulation layer with I.S.O. Twin Pack Insulation Adhesive applied in <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide ribbons spaced 12" o.c. or with I.S.O. Spray R, I.S.O. Fix II or I.S.O. Stick applied in <sup>3</sup>/<sub>4</sub> to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-82.5 psf. (See General Limitation #9)



Membrane Type:	Single Ply, Thermoplastic, TPO
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(32):	One or more layers of insulation adhered with approved adhesive; membrane fully adhered.

## All General and System Limitations apply.

One or more layers of any of the following insulations.

Insulation	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex HD ISO		
Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A

Note: All insulation layers shall be adhered with I.S.O. Stick, applied in continuous  $\frac{3}{4}$ " to 1" wide ribbons spaced 4" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 3" wide side laps.
Maximum Design	
Pressure:	-300 psf. (See General Limitation #9)



Membrane Type:	Single Ply, Thermoplastic, TPO
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(33):	One or more layers of insulation adhered with approved adhesive; membrane fully adhered.

All General and System Limitations apply.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation	· · · ·	·
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
DensDeck Prime		
Delisbeek I I line		

Note: Optional – Concrete deck shall be primed with ASTM D 41 asphalt primer at a rate of <sup>3</sup>/<sub>4</sub> to 1 gal/sq. and allowed to dry prior to application of insulation. Insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-25 lbs/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-247.5 psf. (See General Limitation #9)
I I Cobul C.	-247.5 psi. (See General Elimitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type A(34):	Insulation adhered with approved adhesive; membrane fully adhered.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex HD ISO		
Minimum <sup>1</sup> /2" thick	N/A	N/A

Note: Base insulation shall be adhered using I.S.O. Fix II, I.S.O. Stick, I.S.O. Twin Pack Insulation Adhesive or ISO Spray R ribbon, applied in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" on center. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-445 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type B(1):	Base layer of insulation mechanically fastened, optional top layer fully adhered with approved adhesive.

One or more layers of any of the following insulations.		
Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum 1.5" thick	1 or 2 with 3	<b>1:2</b> ft <sup>2</sup>
Top Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation		
Minimum 1.5" thick	N/A	N/A
Tapered GenFlex ISO Insulation		
Minimum <sup>1</sup> / <sub>2</sub> " thick with a <sup>1</sup> / <sub>4</sub> " per ft. taper	N/A	N/A

Note: Base layer shall be mechanically attached with fasteners and density described. All other layers of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive applied in <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide ribbons spaced 12 in. o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-45 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type B(2):	Base layer of insulation mechanically fastened, optional top layer adhered with approved adhesive.

One or more layers of any of the following insulations. **Base Insulation Layer (Optional)** 

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		·
Minimum 1" thick	N/A	N/A
Tapered GenFlex ISO Insulation		
Minimum <sup>1</sup> / <sub>2</sub> " thick with a <sup>1</sup> / <sub>4</sub> " per ft. taper	N/A	N/A
Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum 2.25" thick	1 or 2 with 3	1:4 ft <sup>2</sup>

Note: Optional Base layer shall be loose laid. Middle layer shall be simultaneously fastened with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation		
Minimum 1.5" thick	N/A	N/A

Note: Optional top layer shall be adhered to top insulation with I.S.O. Twin Pack Insulation Adhesive in continuous <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide beads spaced 12" o.c. or, I.S.O. Fix II or I.S.O. Stick applied in continuous <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at<br/>the 2" wide side laps.Maximum Design

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



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type B(3):	Base layer of insulation mechanically fastened, optional top layer adhered with approved adhesive.

One or more layers of any of the following insulations. **Base Insulation Layer (Optional) Insulation Fasteners Fastener Density/ft<sup>2</sup>** (Table 3) **GenFlex ISO Insulation, Coated Glass Facer** Minimum 1" thick N/A N/A **Insulation Fasteners Fastener Density/ft<sup>2</sup>** Middle Insulation Layer (Table 3) **GenFlex ISO Insulation, Coated Glass Facer** Minimum 1.5" thick 1:2 ft<sup>2</sup> 1 or 2 with 3

Note: Optional Base layer shall be loose laid. Middle layer shall be simultaneously fastened with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener Density/ft <sup>2</sup>
	(Table 3)	
GenFlex HD ISO		
Minimum <sup>1</sup> /2" thick	N/A	N/A

Note: Top layer shall be adhered to top insulation with I.S.O. Twin Pack Insulation Adhesive in continuous  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide beads spaced 12" o.c. or, I.S.O. Fix II or I.S.O. Stick applied in continuous  $\frac{3}{4}$ " to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design	
Pressure:	-45 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type B(4):	Base layer of insulation mechanically fastened, optional top layer adhered with approved adhesive.

One or more layers of any of the following insulations.Insulation Fasteners<br/>(Table 3)Fastener<br/>Density/ft2GenFlex ISO Insulation, Coated Glass Facer<br/>Minimum 1.5" thick1 or 2 with 31:2 ft2

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		-
Minimum 1" thick	N/A	N/A
(Optional) Additional Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		-
Minimum 1" thick	N/A	N/A
GenFlex ISO Insulation tapered Minimum ½" thick with a ¼" per ft. taper	N/A	N/A

Note: Middle insulation layers shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous ½" to ¾" wide beads spaced 12" o.c. I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" to 1" wide ribbons spaced 12" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Be	oard	
Minimum ¼" thick	N/A	N/A



Note: Top layer of insulation shall be adhered to previous layer with I.S.O. Twin Pack Insulation Adhesive in continuous <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide beads spaced 12" o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

Membrane:Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at<br/>the 2" wide side laps.Maximum Design<br/>Pressure:-45 psf. (See General Limitation #9)



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Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type B(5):	Base layer of insulation mechanically fastened, optional top layer adhered with approved adhesive.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer Minimum 1.5" thick	1 or 2 with 3	1:2 ft <sup>2</sup>

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		-
Minimum 1" thick	N/A	N/A
Additional Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		
Minimum 1" thick	N/A	N/A
GenFlex ISO Insulation tapered Minimum ½" thick with a ¼" per ft. taper	N/A	N/A

Note: Middle insulation layers shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide beads spaced 12" o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (cover board)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum Fiber Roof	Board, GenFlex HD ISO	
Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A



Note: Top layer of insulation shall be adhered to previous layer with I.S.O. Twin Pack Insulation Adhesive in continuous <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide beads spaced 12" o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-45 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type B(6):	Base layer of insulation mechanically fastened, optional top layer adhered with approved adhesive.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer Minimum 1.5" thick	1 or 2 with 3	1:1.6 ft <sup>2</sup>

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum-Fiber Ro	× ,	
Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A
GenFlex HD ISO Composite		
Minimum 1 <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A

Note: Top layer of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide beads spaced 6" o.c. or I.S.O. Fix II or I.S.O. Stick (not for ISOGARD HD (GenFlex HD ISO) or ISOGARD HD Composite (GenFlex HD Composite ISO)) applied in continuous  $\frac{3}{4}$ " to 1" wide ribbons spaced 6 o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-60 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type B(7):	Base layer of insulation mechanically fastened, optional top layer adhered with approved adhesive

One or more layers of any of the following insulations.		
Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum 1.5" thick	1 or 2 with 3	1:1.78 ft <sup>2</sup>

Note: Base layer shall be fastened with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex HD ISO Composite Minimum 1.5" thick	N/A	N/A

Note: Top layer shall be adhered to top insulation with I.S.O. Stick, I.S.O. Fix II or I.S.O. Spray R applied in continuous <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design	
Pressure:	-60 psf. (See General Limitation #7)

Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type B(8):	Base layer of insulation mechanically fastened, optional top layer adhered with approved adhesive.

One or more layers of any of the following insulations.		
Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		-
Minimum 2" thick	1 or 2 with 3	1:1.78 ft <sup>2</sup>

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum ½" thick	N/A	N/A

Note: Middle Insulation shall be adhered with I.S.O. Twin Pack Insulation Adhesive in continuous 1/2" to 3/4" wide ribbons spaced 6" o.c. or I.S.O. Spray R applied in continuous 3/4" to 1" wide ribbons spaced 6" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (cover board)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex HD ISO	(14010 3)	Density/It
Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A

Note: Top layer of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide ribbons spaced 6" o.c. or I.S.O. Spray R, I.S.O. Fix II or I.S.O. Stick applied in continuous <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 6" o.c. Please refer to **Roofing Application Standard RAS 117 for insulation attachment.** 

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design	
Pressure:	-60 psf. (See General Limitation #7)

-60 psf. (See General Limitation #7)



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Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type B(9):	Base layer of insulation mechanically fastened, optional top layer adhered with approved adhesive.

One or more layers of any of the following insulations.		
Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		-
Minimum 2" thick	1 or 2 with 3	1:1.78 ft <sup>2</sup>

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

<b>Top Insulation Layer (Cover Board)</b>	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex HD ISO		
Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A

Note: Top insulation layer shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide ribbons spaced 6" o.c. or I.S.O. Spray R, I.S.O. Fix II or I.S.O. Stick applied in continuous <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 6" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-67.5 psf. (See General Limitation #7)

Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type B(10):	Base layer of insulation mechanically fastened, optional top layer adhered with approved adhesive

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation Minimum 2" thick	1 or 2 with 3	1:1.78 ft <sup>2</sup>
		1110010

Note: Base layer shall be fastened with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
SECUROCK Gypsum Fiber Roof Board		·
Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A

Note: Top layer shall be adhered to top insulation with I.S.O. Stick applied in continuous <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 6" o.c. or I.S.O. Stick applied in continuous <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at<br/>the 2" wide side laps.Maximum Design-67.5 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type B(11):	Base layer of insulation mechanically fastened, optional top layer adhered with approved adhesive.

One or more layers of any of the following insulations. Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup> GenFlex ISO Insulation, Coated Glass Facer Minimum 2" thick 1 or 2 with 3 1:1.6 ft<sup>2</sup>

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		
Minimum 1" thick	N/A	N/A

Note: Top layer of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide beads spaced 6" o.c., I.S.O. Fix II or I.S.O. Stick applied in continuous <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 6" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design	
Pressure:	-75 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 7I:	Recover, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type B(12):	Base layer of insulation mechanically fastened, optional top layer adhered with approved adhesive.

One or more layers of any of the following insulations.

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Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		•
Minimum 1" thick	N/A	N/A
GenFlex ISO Insulation Tapered		
Minimum $\frac{1}{2}$ " thick with a $\frac{1}{4}$ " per ft. taper	N/A	N/A
Middle Insulation Layer	Insulation Fasteners	Fastener
ConFlow ISO Ingulation Coated Clogg Forem	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum 2" thick	1 or 2 with 3	1:1.6 ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum Fiber Roof	' Board	
Minimum <sup>1</sup> / <sub>2</sub> " thick	1 or 2 with 3	1:1.6 ft <sup>2</sup>

Note: Middle layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex HD ISO		
Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A

Note: Top layer of insulation shall be adhered to middle insulation layer with I.S.O. Twin Pack Insulation Adhesive in continuous ½"to ¾" wide ribbons spaced 6" o.c. or I.S.O. Fix II or I.S.O. Stick applied in continuous ¾" to 1" wide ribbons spaced 6" o.c. See Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-82.5 psf. (See General Limitation #7)

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Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type B(13):	Base layer of insulation mechanically fastened, top layer adhered with approved adhesive.

One or more layers of any of the following insulations:

Base Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
Coated Glass Facer		
Minimum 1.5" thick	1 or 2 with 3	1:1 ft <sup>2</sup>
Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
Coated Glass Facer		
Minimum 1.5" thick	N/A	N/A

Note: Base layer shall be mechanically attached with fasteners and density described. Top layer of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide beads spaced 12" o.c. or I.S.O. Stick, I.S.O. Fix II applied in continuous <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld<br/>at the 2" wide side laps.Maximum Design-120 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type B(14):	Base layer of insulation mechanically fastened, optional top layer adhered with approved adhesive

One or more layers of any of the following insulations. Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup> GenFlex ISO Insulation, Coated Glass Facer Minimum 2" thick 1 or 2 with 3 1:1 ft<sup>2</sup>

Note: Base layer shall be fastened with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		
Minimum 1" thick	N/A	N/A

Note: Top layer shall be adhered to top insulation with I.S.O. Twin Pack Insulation Adhesive in continuous <sup>1</sup>/<sub>2</sub>" to <sup>3</sup>/<sub>4</sub>" wide beads spaced 4" o.c. or, I.S.O. Fix II or I.S.O. Stick applied in continuous <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 4" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at<br/>the 2" wide side laps.Maximum Design<br/>Pressure:-127.5 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type B(15):	Base layer of insulation mechanically fastened, optional top layer adhered with approved adhesive.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer Minimum 2" thick	1 or 2 with 3	1:1 ft <sup>2</sup>
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
DensDeck Prime, GenFlex HD ISO Minimum ½" thick	N/A	N/A
GenFlex HD ISO Composite Minimum 1.5" thick	N/A	N/A

Note: Base layer shall be mechanically attached with fasteners and density described. Top layer of insulation shall be adhered to base insulations with I.S.O. Twin Pack Insulation Adhesive in continuous  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide beads spaced 4" o.c., I.S.O. Fix II or I.S.O. Stick (not for GenFlex HD ISO or GenFlex HD Composite ISO) applied in continuous  $\frac{3}{4}$ " to 1" wide ribbons spaced 4" o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-127.5 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type B(16):	Base layer of insulation mechanically fastened, optional top layer adhered with approved adhesive

One or more layers of any of the following insulation	ons.	
Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum 1" thick	N/A	N/A
Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum 2" thick	1 or 2 with 3	<b>1:1 ft<sup>2</sup></b>

Note: Base layer shall be loose laid. Middle layer shall be simultaneously fastened with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex HD ISO Minimum ½" thick	N/A	N/A

Note: Top layer shall be adhered to top insulation with I.S.O. Twin Pack Insulation Adhesive in continuous  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide ribbons spaced 4" o.c. or, I.S.O. Fix II or I.S.O. Stick applied in continuous  $\frac{3}{4}$ " to 1" wide ribbons spaced 4" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-135 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type B(17):	Base layer of insulation mechanically fastened, optional top layer adhered with approved adhesive

One or more layers of any of the following insulation	ons.	
<b>Base Insulation Layer (Optional)</b>	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum 1" thick	N/A	N/A
Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum 2" thick	1 or 2 with 3	<b>1:1 ft<sup>2</sup></b>

Note: Base layer shall be loose laid. Middle layer shall be simultaneously fastened with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener Density/ft <sup>2</sup>
	(Table 3)	
GenFlex HD ISO		
Minimum <sup>1</sup> /2" thick	N/A	N/A

Note: Top layer shall be adhered to top insulation with I.S.O. Twin Pack Insulation Adhesive in continuous  $\frac{1}{2}$ " to  $\frac{3}{4}$ " wide ribbons spaced 4" o.c. or, I.S.O. Fix II or I.S.O. Stick applied in continuous  $\frac{3}{4}$ " to 1" wide ribbons spaced 4" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at<br/>the 2" wide side laps.Maximum Design<br/>Pressure:-135 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
<b>Deck Description:</b>	Min. 2500 psi structural concrete or concrete plank.
System Type C(1):	All layers of insulation simultaneously attached; membrane fully adhered.

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One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft2
GenFlex ISO Insulation		·
Minimum 1" thick	N/A	N/A
GenFlex ISO Insulation Tapered		
Minimum $\frac{1}{2}$ " thick with a $\frac{1}{4}$ " per ft. taper	N/A	N/A
Winning 12 the with a 74 per 1t. taper	IVA	
Middle Insulation Layer	Insulation Fasteners	Fastener
White Insulation Layer		
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex HD ISO		-
Minimum <sup>1</sup> /2" thick	1 or 2 with 3	1:2.1 ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum 1" thick	1 or 2 with 3	1:2.1 ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum ¼" thick	1 or 2 with 3	<b>1:2.1 ft<sup>2</sup></b>
GenFlex HD ISO Composite		
Minimum 1.5" thick	1 or 2 with 3	1:2.1 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at<br/>the 2" wide side laps.Maximum Design

Pressure:

-45 psf. (See General Limitation #9)



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Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
<b>Deck Description:</b>	Min. 2500 psi structural concrete or concrete plank.
System Type C(2):	All layers of insulation simultaneously attached; membrane fully adhered.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum 1" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
SECUROCK Gypsum-Fiber Roof Board		-
Minimum ¼" thick	1 or 2 with 3	1:1.78 ft <sup>2</sup>
Coated Glass Facer		
Minimum 1" thick	1 or 2 with 3	1:1.78 ft <sup>2</sup>
Minimum 1 tnick	1 of 2 with 5	1:1./011-
GenFlex ISO Insulation, GenFlex HD ISO Composite		
Minimum 1.5" thick	1 or 2 with 3	1:1.78 ft <sup>2</sup>
DensDeck Prime		
Minimum <sup>1</sup> /2" thick	1 or 2 with 3	1:1.78 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened. See top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-45 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type C(3):	All layers of insulation simultaneously attached; membrane fully adhered.

One or more layers of any of the following insulations:		
Base Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		-
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		-
Minimum 2" thick	1 or 2 with 3	1:2.67 ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Bo	oard	
Minimum <sup>1</sup> /2" thick	1 or 2 with 3	1:2.67 ft <sup>2</sup>
GenFlex HD ISO Composite		
Minimum 1.5" thick	1 or 2 with 3	1:2.67 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened. See top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-45 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.

Membrane bonded over mechanically fastened insulation. System Type C(4):

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations. 1 - 4

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer Minimum 1.5" thick	N/A	N/A
Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft2
GenFlex ISO Insulation, Coated Glass Facer Minimum ½" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer Minimum 1" thick	1 or 2 with 3	1:5.3 ft <sup>2</sup>
GenFlex HD ISO Minimum ½" thick	1 or 2 with 3	1:5.3 ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum Fiber Roof Bo Minimum ¼" thick	oard 1 or 2 with 3	1:5.3 ft <sup>2</sup>
GenFlex HD Composite ISO Minimum 1.5" thick	1 or 2 with 3	1:5.3 ft <sup>2</sup>
Plywood Minimum 19/32" thick	1 or 2 with 3	1:5.3 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at Membrane: the 2" wide side laps. Maximum Design **Pressure:** 

-45 psf. (See General Limitation #9)



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Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type C(5):	Membrane fully adhered over mechanically fastened insulation.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex HD ISO Minimum ½" thick	1 or 2 with 3	1:2.7ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer Minimum 1" thick	1 or 2 with 3	1:2.7 ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	1 or 2 with 3	1:2.7 ft <sup>2</sup>
GenFlex HD ISO Composite Minimum 1.5" thick	1 or 2 with 3	1:2.7 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-45 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type C(6):	Membrane fully adhered over mechanically fastened insulation.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex HD ISO Minimum 1" thick	1 or 2 with 3	1: 1.78 ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer Minimum 1" thick	1 or 2 with 3	1: 1.78 ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum-Fiber Boards Minimum ¼" thick	1 or 2 with 3	1: 1.78 ft <sup>2</sup>
GenFlex HD ISO Composite Minimum 1.5" thick	1 or 2 with 3	1:1.78 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design	
Pressure:	-45 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 2I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type C(7):	Base layer of insulation mechanically fastened, optional top layer adhered with approved adhesive

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation		
Minimum 1.5" thick	N/A	N/A
Middle Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation Tapered		
Minimum <sup>1</sup> /2" thick	N/A	N/A

Note: Base layer shall be loose laid. Middle layer shall be preliminary fastened. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for fastening details.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum Fiber R	oof Board	
Minimum <sup>1</sup> /4" thick	1 or 2 with 3	<b>1:2</b> ft <sup>2</sup>
GenFlex HD Composite ISO, GenFlex ISO Insula Minimum 1.5" thick	ation 1 or 2 with 3	1:2 ft <sup>2</sup>
Coated Glass Facer Minimum 1" thick	1 or 2 with 3	1:2 ft <sup>2</sup>
Plywood Minimum 19/32" thick	1 or 2 with 3	1:2 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-45 psf. (See General Limitation #9)
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Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
<b>Deck Description:</b>	Min. 2500 psi structural concrete or concrete plank.
System Type C(8):	All layers of insulation simultaneously attached; membrane fully adhered.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A
Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum 1.25" thick	1 or 2 with 3	1:2.7 ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board		
Minimum <sup>1</sup> /2" thick	1 or 2 with 3	1:2.7 ft <sup>2</sup>
GenFlex HD ISO Composite		
Minimum 1.5" thick	1 or 2 with 3	1:2.7 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at<br/>the 2" wide side laps.Maximum Design-45 psf. (See General Limitation #9)

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Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
<b>Deck Description:</b>	Min. 2500 psi structural concrete or concrete plank.
System Type C(9):	All layers of insulation simultaneously attached; membrane fully adhered.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A
Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
Coated Glass Facer		·
Minimum 1" thick	1 or 2 with 3	1:6 ft <sup>2</sup>
GenFlex ISO Insulation, GenFlex HD ISO Composite		
Minimum 1.5" thick	1 or 2 with 3	1:1.6 ft <sup>2</sup>
SECUROCK Gypsum Fiber Roof Board, DensDeck Prime		
Minimum <sup>1</sup> / <sub>2</sub> " thick	1 or 2 with 3	1:1.6 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened. See top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at<br/>the 2" wide side laps.Maximum Design

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



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type C(10):	Membrane fully adhered over mechanically fastened insulation.

**Insulation Fasteners** 

Fastener

One or more layers of any of the following insulations. Base Insulation Layer (Optional)

Dube Insulation Day of (Optional)	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		v
Minimum <sup>1</sup> /2"thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
DenDecks Prime, SECUROCK Gypsum Fiber Roof Board		
Minimum <sup>1</sup> / <sub>2</sub> " thick	1 or 2 with 3	1:.1.78 ft <sup>2</sup>
<b>RESISTA, Coated Glass Facer</b>		
Minimum 2" thick	1 or 2 with 3	1:.1.78 ft <sup>2</sup>
ISOGARD HD Composite, GenFlex HD Composite ISO		
Minimum 1.5" thick	1 or 2 with 3	1:.1.78 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld<br/>at the 2" wide side laps.Maximum Design<br/>Pressure:-52.5 psf. (See General Limitation #7)



Membrane Type:	Single Ply, Thermoplastic, TPO
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type C(11):	All layers of insulation simultaneously attached; membrane fully adhered.

#### All General and System Limitations apply.

One or more layers of any of the following insulations.			
Base Insulation Layer (Optional)	Insulation Fasteners	Fastener	
	(Table 3)	Density/ft <sup>2</sup>	
GenFlex ISO Insulation, Coated Glass Facer			
Minimum <sup>1</sup> /2"thick	N/A	N/A	
Insulation Layer	Insulation Fasteners	Fastener	
	(Table 3)	Density/ft <sup>2</sup>	
GenFlex ISO Insulation, GenFlex HD ISO Composite, Coated Glass Facer			
Minimum 1.5" thick	1 or 2 with 3	1: 1.78 ft <sup>2</sup>	
DensDeck Prime, SECUROCK Gypsum Fiber Roof Bo	pard		
Minimum <sup>1</sup> / <sub>2</sub> " thick	1 or 2 with 3	1: 1.78 ft <sup>2</sup>	
Minimum 1.5" thick DensDeck Prime, SECUROCK Gypsum Fiber Roof Bo	1 or 2 with 3 bard		

Note: All layers shall be simultaneously fastened. See top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design	
Pressure:	-60 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type C(12):	Membrane fully adhered over mechanically fastened insulation.

One or more layers of any of the following insulations. **Base Insulation Layer (Optional) Insulation Fasteners** Fastener (Table 3) Density/ft<sup>2</sup> **GenFlex ISO Insulation.** Coated Glass Facer Minimum <sup>1</sup>/<sub>2</sub>" thick N/A N/A **Insulation Fasteners Top Insulation Layer** Fastener (Table 3) Density/ft<sup>2</sup> **SECUROCK Gypsum-Fiber Roof Board** 1: 2.13 ft<sup>2</sup> Minimum <sup>1</sup>/<sub>2</sub>" thick 1 or 2 with 3 **GenFlex HD Composite ISO** 1: 2.13 ft<sup>2</sup> Minimum 1.5" thick 1 or 2 with 3

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at<br/>the 2" wide side laps.Maximum Design<br/>Pressure:-60 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type C(13):	Membrane bonded over mechanically fastened insulation.

One or more layers of any of the following insulations. Base Insulation Layer (Optional)

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex HD ISO Composite Minimum 1" thick	1 or 2 with 3	1: 1.33 ft <sup>2</sup>

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.

Maximum Design Pressure:

-60 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type C(14):	Membrane bonded over mechanically fastened insulation.

One or more layers of any of the following insulations. Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		-
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex HD ISO, GenFlex ISO Insulation, SECUROC	K Gypsum Fiber Roof Boa	ard
Minimum <sup>1</sup> /2" thick	1 or 2 with 3	1:4 ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer Minimum 1" thick	1 or 2 with 3	1:4 ft <sup>2</sup>
DensDeck Prime Minimum ¼" thick	1 or 2 with 3	<b>1:4</b> ft <sup>2</sup>
GenFlex HD Composite ISO Minimum 1.5" thick	1 or 2 with 3	1:4 ft <sup>2</sup>
Plywood Minimum 19/32" thick	1 or 2 with 3	1:4 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-60 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type C(15):	Membrane fully adhered over mechanically fastened insulation.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum 1" thick	N/A	N/A
Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
SECUROCK Gypsum-Fiber Roof Board		
Minimum <sup>1</sup> /2" thick	1 or 2 with 3	1: 4.0 ft <sup>2</sup>
GenFlex HD ISO Composite		
Minimum 1.5" thick	1 or 2 with 3	1: 4.0 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at<br/>the 2" wide side laps.Maximum Design

**Pressure:** -62.5 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type C(16):	All layers of insulation simultaneously attached; membrane fully adhered.

or more layers of any of the following insulations.		
Insulation Layer (Optional) I	nsulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
Flex ISO Insulation, Coated Glass Facer		-
mum ½" thick	N/A	N/A
		_
Insulation Layer I	nsulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
UROCK Gypsum-Fiber Roof Board		
mum ½" thick	1 or 2 with 3	1:1.6 ft <sup>2</sup>
lex HD ISO Composite		
mum 1.5" thick	1 or 2 with 3	1:1.6 ft <sup>2</sup>
mum ½" thick Insulation Layer I UROCK Gypsum-Fiber Roof Board mum ½" thick Flex HD ISO Composite	nsulation Fasteners (Table 3) 1 or 2 with 3	Fastene Density/1 1:1.6 ft

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at<br/>the 2" wide side laps.Maximum Design(7.5 maf. (See Concerd Limitation #7))

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



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
<b>Deck Description:</b>	Min. 2500 psi structural concrete or concrete plank.
System Type C(17):	Membrane bonded over mechanically fastened insulation.

One or more layers of any of the following insulations. Base Insulation Layer Insulation Fasteners

·	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		·
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
Plywood		-
Minimum 19/32" thick	1 or 2 with 3	1:2.7 ft <sup>2</sup>
GenFlex HD ISO		
Minimum <sup>1</sup> / <sub>2</sub> " thick	1 or 2 with 3	1:2.7 ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum Fiber Root	f Board	
Minimum <sup>1</sup> /4" thick	1 or 2 with 3	1:2.7 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-75 psf. (See General Limitation #7)



Fastener

Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
<b>Deck Description:</b>	Min. 2500 psi structural concrete or concrete plank.
System Type C(18):	All layers of insulation simultaneously attached; membrane fully adhered.

One or more layers of any of the following insulations:		
Base Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		-
Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
Coated Glass Facer, GenFlex HD ISO Composite		-
Minimum 1.5" thick	1 or 2 with 3	1:1.6 ft <sup>2</sup>
GenFlex ISO Insulation		
Minimum 2" thick	1 or 2 with 3	1:1.6 ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof B	oard	
Minimum <sup>1</sup> /2" thick	1 or 2 with 3	1:1.6 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened. See top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-75 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type C(19):	All layers of insulation simultaneously attached; membrane bonded.

One or more layers of any of the following insulations. **Base Insulation Layer (Optional) Insulation Fasteners** Fastener (Table 3) Density/ft<sup>2</sup> **GenFlex ISO Insulation, Coated Glass Facer** Minimum <sup>1</sup>/<sub>2</sub>" thick N/A N/A **Top Insulation Layer Insulation Fasteners** Fastener **Density/ft<sup>2</sup>** (Table 3) **SECUROCK Gypsum Fiber Roof Board** Minimum <sup>1</sup>/<sub>2</sub>" thick 1 or 2 with 3 1:1.78 ft<sup>2</sup> **GenFlex HD ISO Composite** 1:1.78 ft<sup>2</sup> Minimum 1.5" thick 1 or 2 with 3

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at<br/>the 2" wide side laps.Maximum Design<br/>Pressure:-82.5 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type C(20):	Membrane adhered over mechanically fastened insulation.

One or more layers of any of the following insulations. **Base Insulation Layer (Optional) Insulation Fasteners** Fastener (Table 3) Density/ft<sup>2</sup> **GenFlex ISO Insulation.** Coated Glass Facer Minimum  $\frac{1}{2}$ " thick N/A N/A **Insulation Fasteners Top Insulation Layer** Fastener (Table 3) Density/ft<sup>2</sup> **GenFlex ISO Insulation, Coated Glass Facer** 1:1.6 ft<sup>2</sup> Minimum 2" thick 1 or 2 with 3 **DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board** Minimum <sup>1</sup>/<sub>2</sub>" thick 1:1.6 ft<sup>2</sup> 1 or 2 with 3 **GenFlex HD ISO Composite** 1:1.6 ft<sup>2</sup> Minimum 1.5" thick 1 or 2 with 3

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-82.5 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 2I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type C(21):	All layers of insulation simultaneously attached; membrane fully adhered.

One or more layers of any of the following insulations: **Base Insulation Layer (Optional) Insulation Fasteners** Fastener **Density/ft<sup>2</sup>** (Table 3) **GenFlex ISO Insulation, Coated Glass Facer** Minimum  $\frac{1}{2}$ " thick N/A N/A **Top Insulation Layer Insulation Fasteners** Fastener Density/ft<sup>2</sup> (Table 3) **Coated Glass Facer** Minimum 2" thick 1:1.33 ft<sup>2</sup> 1 or 2 with 3 **SECUROCK Gypsum-Fiber Roof Board** Minimum  $\frac{1}{2}$ " thick 1:1.33 ft<sup>2</sup> 1 or 2 with 3 **GenFlex HD ISO Composite** Minimum 1.5" thick 1 or 2 with 3 1:1.33 ft<sup>2</sup>

Note: All layers shall be simultaneously fastened. See top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design	
Pressure:	-105 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type C(22):	Membrane fully adhered over mechanically fastened insulation.

(Table 3)

One or more layers of any of the following insulations. **Base Insulation Layer (Optional) Insulation Fasteners** 

GenFlex ISO Insulation, Coated Glass Facer		· ·
Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer		
Minimum 2" thick	1 or 2 with 3	1:1 ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof	Board	
Minimum ½" thick	1 or 2 with 3	1:1 ft <sup>2</sup>
GenFlex HD ISO Composite		
Minimum 1.5" thick	1 or 2 with 3	<b>1:1 ft<sup>2</sup></b>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressures:	-150 psf. (See General Limitation #7)



Fastener

Density/ft<sup>2</sup>

Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type C(23):	Membrane fully adhered over mechanically fastened insulation.

One or more layers of any of the following insulations. **Base Insulation Layer (Optional) Insulation Fasteners** Fastener (Table 3) Density/ft<sup>2</sup> **GenFlex ISO Insulation.** Coated Glass Facer Minimum  $\frac{1}{2}$ " thick N/A N/A **Insulation Fasteners Top Insulation Layer** Fastener (Table 3) Density/ft<sup>2</sup> **GenFlex HD ISO Composite** 1: 1.33 ft<sup>2</sup> Minimum 1.5" thick 1 or 2 with 3

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at<br/>the 2" wide side laps.Maximum Design-112.5 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type C(24):	Membrane fully adhered over mechanically fastened insulation.

One or more layers of any of the following insulations. **Base Insulation Layer (Optional) Insulation Fasteners** Fastener (Table 3) Density/ft<sup>2</sup> **GenFlex ISO Insulation.** Coated Glass Facer Minimum  $\frac{1}{2}$ " thick N/A N/A **Insulation Fasteners Top Insulation Layer** Fastener (Table 3) Density/ft<sup>2</sup> **GenFlex HD ISO Composite** 1: 1.33 ft<sup>2</sup> Minimum 2" thick 1 or 2 with 3

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at<br/>the 2" wide side laps.Maximum Design-120 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type C(25):	Membrane adhered over mechanically fastened insulation.

One or more layers of any of the following insulations. Base Insulation I over (Ontional)

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
GenFlex ISO Insulation, Coated Glass Facer Minimum 2" thick	1 or 2 with 3	1:1 ft <sup>2</sup>
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board1 or 2 with 31:1 ft²Minimum ½" thick1 or 2 with 31:1 ft²		
GenFlex HD ISO Composite Minimum 1.5" thick	1 or 2 with 3	1:1 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at Membrane: the 2" wide side laps. Maximum Design **Pressure:** -142.5 psf. with ISO 95+ GL, RESISTA, DensDeck Prime, or ISOAGRD HD Composite (See General Limitation #7) -112.5 psf. with SECUROCK Gypsum Fiber Roof Board (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type C(26):	All layers of insulation simultaneously attached; membrane fully adhered.

(Optional) Vapor Retarder	Polyethylene Sheet 4-6 mil thick	Min. 2" wide laps sealed
		with duct tape

One or more layers of any of the following insulations.		
Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex ISO Insulation, GenFlex ISO Insulation Tap	ered, Coated Glass Facer, C	Coated Glass
Facer Tapered		
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
SECUROCK Gypsum-Fiber Roof Board		
Minimum <sup>1</sup> /2" thick	1 or 2 with 3	<b>1:4 ft<sup>2</sup></b>
GenFlex HD ISO Composite		
Minimum 1.5" thick	1 or 2 with 3	1: 4 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:	Min. 45 mil. EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design Pressure:	-45 psf. (See General Limitation #9)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I	Steel, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank.
System Type C(27):	Membrane fully adhered over mechanically fastened insulation.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
DensDeck Prime, GenFlex ISO Insulation, Coated Glas	s Facer	
Minimum <sup>1</sup> / <sub>2</sub> " thick	N/A	N/A
Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex HD Composite ISO		
Minimum 1.5" thick	1 or 2 with 3	1:2.13 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld<br/>at the 2" wide side laps.Maximum Design<br/>Pressure:-67.5 psf. (See General Limitation #7)



Membrane Type:	Single Ply, TPO, Reinforced
Deck Type 3I:	Steel, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type C(28):	Membrane fully adhered over mechanically fastened insulation.

One or more layers of any of the following insulations.		
Base Insulation Layer (Optional)	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
DensDeck Prime, GenFlex ISO Insulation, Coated Glass F	acer	
Minimum <sup>1</sup> /2" thick	N/A	N/A
Top Insulation Layer	<b>Insulation Fasteners</b>	Fastener
	(Table 3)	Density/ft <sup>2</sup>
GenFlex HD Composite ISO		-
Minimum 1.5" thick	1 or 2 with 3	1:1.78 ft <sup>2</sup>

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane:	Min. 45 mil EZ TPO Peel and Stick HW self-adhered with 1.5" wide heat weld at the 2" wide side laps.
Maximum Design	
Pressure:	-75 psf. (See General Limitation #7)



## **CONCRETE DECK SYSTEM LIMITATIONS:**

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117 and/or RAS 137, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.

### **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 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 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant (When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)
- 8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
- 9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). (When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)
- 10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9N-3 of the Florida Administrative Code.

# END OF THIS ACCEPTANCE



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