



**BUILDING CODE COMPLIANCE OFFICE (BCCO)  
PRODUCT CONTROL DIVISION**

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

**NOTICE OF ACCEPTANCE (NOA)**

**Seaman Corporation  
1000 Venture Boulevard  
Wooster, OH 44691**

**SCOPE:**

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

**DESCRIPTION: FiberTite Single Ply Roof Systems over Recover Decks**

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

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

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

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

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

This NOA revises NOA No. 05-0922.08 and consists of pages 1 through 56.  
The submitted documentation was reviewed by Jorge Acebo



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## ROOFING SYSTEM APPROVAL

Category: Roofing  
Sub-Category: Single Ply  
Material: KEE  
Deck Type: Recover  
Maximum Design Pressure See Specific deck type  
Fire Classification: See General Limitation #1

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

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
FiberTite, XT, LX XM, Xtreme	various	TAS 114	Thermoplastic, single ply membrane
FiberTite FB	various	TAS 114	Thermoplastic, fleece-backed, single ply membrane
FTR Non-Reinforced	0.060" x 54" x 24'	TAS 114	Thermoplastic flashing accessory
FTR 101		Proprietary	One part urethane sealant
FTR 201		Proprietary	Elastomeric (mastic) sealant
FTR 190		Proprietary	Two side "contact" bonding adhesive
FTR 290		Proprietary	One side "substrate only" fleece back solvent based adhesive
FTR 390		Proprietary	One side "substrate only" fleece back water based adhesive
FTR 490		Proprietary	One side "substrate only" fleece backed water based adhesive
FTR 601		Proprietary	Elastomeric, one step foamable adhesive
FTR SL1		Proprietary	One part "pourable" urethane sealant
FiberClad	48" x 120"	n/a	Polymeric coated G-90 galvanized steel or stainless steel
Tuff Trac	5/32" x 36" x 40' 1/4" x 24" x 48"	n/a	Vinyl walk way vinyl protection pad



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**APPROVED INSULATIONS:**

**TABLE 2**

<b>Product Name</b>	<b>Product Description</b>	<b>Manufacturer (With Current NOA)</b>
FTR-Value	Isocyanurate Insulation	Seaman Corp.
ACFoam Composite	Isocyanurate Insulation with perlite facer	Atlas Roofing Corp.
ACFoam II, III	Isocyanurate Insulation	Atlas Roofing Corp.
ISO 95+ GL, 95+ GW	Polyisocyanurate foam insulation	Firestone
EnergyGuard PolyIso	Polyisocyanurate foam insulation	GAF Materials Corp.
EnergyGuard Composite	Isocyanurate foam insulation with high density fiberboard or perlite insulation.	GAF Materials Corp.
Dens Deck, Dens Deck Prime	Silicon treated gypsum	G-P Products
Type X Gypsum	Gypsum Wallboard	Generic
EPS	Extruded or Expanded Polystyrene	Generic
H-Shield	Polyisocyanurate insulation	Hunter
ENERGY 2, ENERGY 3	Isocyanurate Insulation	Johns Manville
Strataguard	Gypsum Wallboard	Owens Corning
Multi-Max, FA	Polyisocyanurate foam insulation	Rmax, Inc.
RocRoof	Rockwool fire barrier	Tritex
Securock	Gypsum coverboard	US Gypsum, Inc.

**APPROVED FASTENERS:**

**TABLE 3**

<b>Fastener Number</b>	<b>Product Name</b>	<b>Product Description</b>	<b>Dimensions</b>	<b>Manufacturer (With Current NOA)</b>
1.	FTR MAGNUM	Membrane fastener	Various	Seaman Corp.
2.	FTR #14 Fastener	Membrane fastener	Various	Seaman Corp.
3.	FTR Spike	Membrane/insulation fastener for concrete decks.	Various	Seaman Corp.
4.	FTR MAGNUM Plate	Galvalume AZ50 stress plate	1.5" x 2.5"	Seaman Corp.
5.	FTR Magnum 2 <sub>s</sub>	Barbed, galvalume AZ50 stress plate	2-3/8" Dia.	Seaman Corp.
6.	FTR Magnum Belted System	Galvalume AZ50 stress plate, #15 belted fastener system	2-3/8" Dia.	Seaman Corp.
7.	Powerlite	Insulation fastener for cementitious and gypsum decks	Various	Powers Fasteners Inc.
8.	Powerlite	Galvalume AZ55 stress plate	3" round	Powers Fasteners Inc.



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**APPROVED FASTENERS:**

Fastener Number	Product Name	TABLE 3		Manufacturer (With Current NOA)
		Product Description	Dimensions	
9.	Insul-Fixx Fastener	Insulation fastener for steel and wood decks	Various	SFS Intec, Inc.
10.	Insul-Fixx S	Galvalume AZ55 stress plate	3" round	SFS Intec, Inc.
11.	Insul-Fixx P	Polyethylene stress plate	3" round	SFS Intec, Inc.
12.	Dekfast Galvalume Steel Round 2-3/8 in. 20-Ga. Barbed Plate	Barbed, Galvalume AZ50 stress plate	2-3/8" Dia.	SFS Intec, Inc.
13.	Dekfast isofast IF-2.375-AI Membrane Plate	Galvalume AZ50 stress plate, #15 belted fastener system	2-3/8" Dia.	SFS Intec, Inc.
14.	Dekfast Fasteners	Insulation and membrane fasteners	Various	SFS Intec, Inc.
15.	Dekfast Hex Plate	Galvalume AZ50 steel plate	2-7/8" x 3-1/4"	SFS Intec, Inc.
16.	CF Tap-Grip Fasteners	Fastener for concrete decks		The Tru-Fast Corp.
17.	Tru-Fast Plates	Galvalume AZ55 steel plate	3" round	The Tru-Fast Corp.
18.	Tru-Fast Plates	Polyethylene plastic plate	3" round	The Tru-Fast Corp.

**EVIDENCE SUBMITTED:**

<u>Test Agency</u>	<u>Name</u>	<u>Report</u>	<u>Date</u>
Factory Mutual Research Corp	Class 4470	J.I. #1Z2A5.AM	01/12/96
		J.I. 1Z3A8.AM	08/13/97
	Class 4470	30003251	10/15/99
	Class 4470	3006872	06/13/2000
	Class 4470	3009071	01/03/02
	Class 4470	3014050	07/08/03
	Class 4470	J.I. 4D5A4.AM	10/05/99
	FM 4470	3019313	
Exterior Research & Design, LLC	TAS 114	#4015.10.96-1	10/02/96
	TAS 114	#4006.07.97-1	10/02/96
	TAS 114	02843.02.05-08	02/04/05
	TAS 114	02843.03.05-1	03/25/05
	TAS 114	02767.09.05-S1	09/27/05
	TAS 114	02767.09.05-S2	09/27/05



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**APPROVED ASSEMBLIES**

- Membrane Type:** Single Ply, Thermoplastic
- Deck Type 7I:** Recover, Insulated
- Deck Description:** Concrete/lightweight concrete/cementitious wood fiber/wood/steel
- System Type A(1):** One or more layers of insulation adhered with approved asphalt, membrane adhered.

**All General and System Limitations apply.**

One or more layers of the following insulations:

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>FTR-Value, ACFoam II, Multi-Max FA, H-Shield, ENRGY-2, ENRGY-3 Minimum 1.5" thick</b>	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>(Optional) FTR-Value, ACFoam II, Multi-Max FA, H-Shield, ENRGY-2, ENRGY-3 Minimum 1.5" thick</b>	N/A	N/A
<b>(Optional) DensDeck Prime Minimum 0.25" thick</b>	N/A	N/A

**Note: Existing roof shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved hot 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.**

- Vapor Retarders:** (Optional) Asphaltic Vapor Retarder.
- Barrier:** None.
- Membrane:** FiberTite, XT, SM or XTreme roof cover adhered to the insulation with FTR-190 Bonding Adhesive applied at an application rate of 1 gal./sq. to the backside of the membrane and to the substrate  
or  
FiberTite FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., or FTR-290 solvent adhesive at 1 gal. per 100 ft<sup>2</sup> or FTR-390 asphalt based adhesive at 1 gal. per 60 ft<sup>2</sup>.
- Maximum Design Pressure:** -240 psf; (See General Limitation #9.)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete  
**System Type A(2):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>(Optional) AC Foam II, Multi-Max, ENRGY 3, H-Shield</b> Minimum 1.5" thick	N/A	N/A
<b>(Optional) DensDeck, DensDeck Prime</b> Minimum 0.25" thick	N/A	N/A

**Note:** All insulation shall be adhered to the substrate in ½" to ¾" wide beads 12" o.c. of FTR 601 or Weathertite One Step Foamable Adhesive. 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.

**Vapor Retarders:** Any UL or FM approved vapor retarder may be installed over the substrate or the base layer of insulation.

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered to the insulation with FTR-190 Bonding Adhesive applied at an application rate of 1 gal./sq. to the backside of the membrane and to the substrate

Or

FiberTite FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., or FTR-290 solvent adhesive at 1 gal. per 100 ft<sup>2</sup> or FTR-390 asphalt based adhesive at 1 gal. per 60 ft<sup>2</sup>.

**Maximum Design Pressure:** -157.5 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete  
**System Type A(3):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>(Optional) ACFoam II, ACFoam III, Multi-Max FA, FTR-Value</b> Minimum 1.5" thick	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>(Optional) DensDeck, DensDeck Prime</b> Minimum 0.5" thick	N/A	N/A

**Note:** All insulation shall be adhered to the substrate in 3-3.5" wide beads spaced 12" o.c. of TITE-SET. 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.

**Vapor Retarders:** (Optional) Any UL or FM approved vapor retarder may be installed over the substrate.

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered to the insulation with FTR-190 Bonding Adhesive applied at an application rate of 1 gal./sq. to the backside of the membrane and to the substrate

Or

FiberTite FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., or FTR-290 solvent adhesive at 1 gal. per 100 ft<sup>2</sup> or FTR-390 asphalt based adhesive at 1 gal. per 60 ft<sup>2</sup>.

**Maximum Design Pressure:** -240.0 psf (See General Limitation #9)



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**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete  
**System Type A(4):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>(Optional) ACFoam II, ACFoam III, Multi-Max FA, FTR-Value</b> Minimum 1.5" thick	N/A	N/A
<b>(Optional) DensDeck, DensDeck Prime</b> Minimum 0.5" thick	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam II, ACFoam III, Multi-Max FA, FTR-Value</b> Tapered	N/A	N/A

**Note: All insulation shall be adhered to the substrate in 3-3.5" wide beads spaced 12" o.c. of TITE-SET. 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.**

**Vapor Retarders:** (Optional) Any UL or FM approved vapor retarder may be installed over the substrate.

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered to the insulation with FTR-190 Bonding Adhesive applied at an application rate of 1 gal./sq. to the backside of the membrane and to the substrate

Or

FiberTite FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., or FTR-290 solvent adhesive at 1 gal. per 100 ft<sup>2</sup> or FTR-390 asphalt based adhesive at 1 gal. per 60 ft<sup>2</sup>.

**Maximum Design Pressure:** -90.0 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Steel  
**System Type A(5):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>DensDeck, DensDeck Prime</b> Minimum 0.5" thick	N/A	N/A

**Note: All insulation shall be adhered to the substrate in 3-3.5" wide beads spaced 12" o.c. of TITE-SET. 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.**

**Vapor Retarders:** (Optional) Any UL or FM approved vapor retarder may be installed over the substrate.

**Barrier:** None.

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered to the insulation with FTR-190 Bonding Adhesive applied at an application rate of 1 gal./sq. to the backside of the membrane and to the substrate

Or

FiberTite FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., or FTR-290 solvent adhesive at 1 gal. per 100 ft<sup>2</sup> or FTR-390 asphalt based adhesive at 1 gal. per 60 ft<sup>2</sup>.

**Maximum Design Pressure:** -240.0 psf (See General Limitation #9)



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**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete  
**System Type A(6):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
ASTM C578 Type IX expanded polystyrene (min. 1.8 pcf) or Type IV extruded polystyrene (min. 1.6 pcf) Minimum 1.5" thick	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Securock</b> Minimum 0.25" thick	N/A	N/A

**Note: All insulation shall be adhered to the substrate in 3" to 3.5" wide beads 12" o.c. of TITE-SET Roofing Adhesive. 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.**

**Primer:** (Optional) ASTM D41 Asphaltic Primer (required if using vapor barrier)

**Vapor Retarder:** Optional hot asphalt-applied base and/or ply sheets approved for use with roof cover followed by asphalt-applied CertainTeed Flintlastic GMS, Firestone SBS Cap, GAF Ruberoid 30, Johns Manville DynaGlas, Soprema Elastophene GR or Sopralene 180 or 250 GR or Siplast Paradiene 30.

**Hot-applied:**

**Torch-applied:** Optional Hot asphalt-applied base and/or ply sheets or optional torch-applied base membrane approved for use with roof cover followed by CertainTeed Flintlastic GTA or GTS, Firestone APP 180 FR Cap, GAF Ruberoid Torch GR, Johns Manville APPEX 4.5M, Soprema Elastophene Flam GR, Sopralene Flam 180 or 250 GR or Siplast Paradiene 30 TG.

**Self-Adhered:** Optional self-adhered base membrane approved for use with roof cover followed by CertainTeed Flintlastic SA Cap, GAF Liberty Cap, Johns Manville DynaGrip Cap or JMCleanBond Cap, Polyglass Elastoflex SA VG or Soprema Colphene FR GR or Colphene HR FR GR.

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered to the insulation with FTR-190 Bonding Adhesive applied at an application rate of 50 ft<sup>2</sup>/gal.  
 Or  
 FiberTite FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., FTR-290 solvent adhesive at 90 ft<sup>2</sup>/gal or FTR-490 water based adhesive at at 100 ft<sup>2</sup>/gal.

**Maximum Design Pressure:** -87.5 psf (See General Limitation #9)



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**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete  
**System Type A(7):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
ASTM C578 Type IX expanded polystyrene (min. 1.8 pcf) or Type IV extruded polystyrene (min. 1.6 pcf) Minimum 1.5" thick	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Securock</b> Minimum 0.25" thick	N/A	N/A

**Note: All insulation shall be adhered to the substrate in 3" to 3.5" wide beads 12" o.c. of TITE-SET Roofing Adhesive. 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.**

**Primer:** (Optional) ASTM D41 Asphaltic Primer (required if using vapor barrier)

**Vapor Retarder:** Optional hot asphalt-applied base and/or ply sheets approved for use with roof cover followed by asphalt-applied CertainTeed Flintlastic GMS, Firestone SBS Cap, GAF Ruberoid 30, Johns Manville DynaGlas, Soprema Elastophene GR or Sopralene 180 or 250 GR or Siplast Paradiene 30.

Hot-applied:

Self-Adhered: Optional self-adhered base membrane approved for use with roof cover followed by CertainTeed Flintlastic SA Cap, GAF Liberty Cap, Johns Manville DynaGrip Cap or JMCleanBond Cap, Polyglass Elastoflex SA VG or Soprema Colphene FR GR or Colphene HR FR GR.

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered to the insulation with FTR-190 Bonding Adhesive applied at an application rate of 50 ft<sup>2</sup>/gal.

Or

FiberTite FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., FTR-290 solvent adhesive at 90 ft<sup>2</sup>/gal or FTR-490 water based adhesive at at 100 ft<sup>2</sup>/gal.

**Maximum Design Pressure:** -180.0 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete  
**System Type A(8):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
ASTM C578 expanded or extruded polystyrene (min 2.0 pcf) Minimum 1.5" thick	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Securock</b> Minimum 0.25" thick	N/A	N/A

**Note: All insulation shall be adhered to the substrate in 3" to 3.5" wide beads 12" o.c. of TITE-SET Roofing Adhesive. 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.**

**Primer:** (Optional) ASTM D41 Asphaltic Primer (required if using vapor barrier)

**Vapor Retarder:** Optional hot asphalt-applied base and/or ply sheets approved for use with roof cover followed by asphalt-applied CertainTeed Flintlastic GMS, Firestone SBS Cap, GAF Ruberoid 30, Johns Manville DynaGlas, Soprema Elastophene GR or Sopralene 180 or 250 GR or Siplast Paradiene 30.

Hot-applied:

Self-Adhered: Optional self-adhered base membrane approved for use with roof cover followed by CertainTeed Flintlastic SA Cap, GAF Liberty Cap, Johns Manville DynaGrip Cap or JMCleanBond Cap, Polyglass Elastoflex SA VG or Soprema Colphene FR GR or Colphene HR FR GR.

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered to the insulation with FTR-190 Bonding Adhesive applied at an application rate of 50 ft<sup>2</sup>/gal.

or

FiberTite FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., FTR-290 solvent adhesive at 90 ft<sup>2</sup>/gal or FTR-490 water based adhesive at at 100 ft<sup>2</sup>/gal.

**Maximum Design Pressure:** -240.0 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete  
**System Type A(9):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
ASTM C578 Type IX expanded polystyrene (min. 1.8 pcf) or Type IV extruded polystyrene (min. 1.6 pcf) Minimum 1.5" thick	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Securock</b> Minimum 0.25" thick	N/A	N/A

**Note: All insulation shall be adhered to the substrate in 3" to 3.5" wide beads 12" o.c. of TITE-SET Roofing Adhesive. 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.**

**Primer:** Any approved ASTM D41 Asphaltic Primer

**Vapor Retarder:** Optional Hot asphalt-applied base and/or ply sheets or optional torch-applied base membrane approved for use with roof cover followed by CertainTeed Flintlastic GTA or GTS, Firestone APP 180 FR Cap, GAF Ruberoid Torch GR, Johns Manville APPEX 4.5M, Soprema Elastophene Flam GR, Sopralene Flam 180 or 250 GR or Siplast Paradiene 30 TG.

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered to the insulation with FTR-190 Bonding Adhesive applied at an application rate of 50 ft<sup>2</sup>/gal.

Or

FiberTite FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., FTR-290 solvent adhesive at 90 ft<sup>2</sup>/gal or FTR-490 water based adhesive at 100 ft<sup>2</sup>/gal.

**Maximum Design Pressure:** -168.5 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete  
**System Type A(10):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
ASTM C578 Type IX expanded polystyrene (min. 1.8 pcf) or Type IV extruded polystyrene (min. 1.6 pcf) Minimum 1.5" thick	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Securock</b> Minimum 0.25" thick	N/A	N/A

**Note: All insulation shall be adhered to the substrate in 3" to 3.5" wide beads 12" o.c. of TITE-SET Roofing Adhesive. 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.**

**Primer:** Any approved ASTM D41 Asphaltic Primer

**Vapor Retarder:** Optional cold-applied base and/or ply sheet approved for use with the roof cover followed by CertainTeed Flintlastic GMS in FlintBond Adhesive, GAF Ruberoid 30 in Matrix 102 Adhesive, Johns Manville DynaGlas in MBR Adhesive, Polyglass Elastoflex VG in 1000 MB SBS Adhesive, Soprema Elastophene GR or Sopralene 180 or 250 GR in FM Adhesive or FM Adhesive (VOC) or Siplast Paradiene 30 in PA-311 Adhesive.

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered to the insulation with FTR-190 Bonding Adhesive applied at an application rate of 50 ft<sup>2</sup>/gal.  
 or  
 FiberTite FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., FTR-290 solvent adhesive at 90 ft<sup>2</sup>/gal or FTR-490 water based adhesive at at 100 ft<sup>2</sup>/gal.

**Maximum Design Pressure:** -60.0 psf (Sec General Limitation #9)



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**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete  
**System Type A(11):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam II, FTR-Value</b> Minimum 2" thick	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Securock</b> Minimum 0.25" thick	N/A	N/A

**Note:** All insulation shall be adhered to the substrate in ¾" to 1" wide beads 12" o.c. of Insta-Stik Adhesive or OlyBond 500, ½" to ¾" wide beads 12" o.c. of FTR 601, Weather-Tite Pourable Foam Insulation Adhesive or Weather-Tite One Step Foamable Insulation Adhesive or 3" to 3.5" wide beads 12" o.c. of TITE-SET Roofing Adhesive or Olybond Adhesive at an application rate of 1gal/sq or 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.

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered to the insulation with FTR-190 Bonding Adhesive applied at an application rate of 50 ft<sup>2</sup>/gal.  
 Or  
 FiberTite FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., FTR-290 solvent adhesive at 90 ft<sup>2</sup>/gal or FTR-490 water based adhesive at 100 ft<sup>2</sup>/gal.

**Maximum Design Pressures:** -510.0 psf (for Insta-Stik, Olybond 500, FTR 601, Weather-Tite Pourable Foam, Weather-Tite One Step or TITE-SET) (See General Limitation #9)  
 -555.0 psf (for Olybond Adhesive or approved hot asphalt) (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete  
**System Type A(12):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Insulation Base Layer:</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
<b>FTR-Value, AC Foam II, Multi-Max FA, H-Shield, ENRGY 3</b> Minimum: 1.5" thick	N/A	N/A
<b>Insulation Top Layer:</b> <b>FTR-Value, AC Foam II, Multi-Max FA, H-Shield, ENRGY 3</b> Minimum: 1.5" thick	N/A	N/A

**Note:** All insulation shall be adhered to the substrate or vapor barrier in TITE-SET Roofing Adhesive applied in continuous 3-inch ribbons spaced 12" o.c. 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.

**Vapor Retarder:** (Optional) Hot-applied, Self-Adhering or Torch-applied vapor retarder as indicated below:

**Hot-applied:** Optional hot asphalt-applied base and/or ply sheets approved for use with roof cover followed by asphalt-applied CertainTeed Flintlastic GMS, Firestone SBS Cap, GAF Ruberoid 30, Johns Manville DynaGlas, Soprema Elastophene GR or Sopralene 180 or 250 GR or Siplast Paradiene 30.

**Self-Adhered:** Optional self-adhered base membrane approved for use with roof cover followed by CertainTeed Flintlastic SA Cap, GAF Liberty Cap, Johns Manville DynaGrip Cap or JMCleanBond Cap, Polyglass Elastoflex SA VG or Soprema Colphene FR GR or Colphene HR FR GR.

**Torch-applied:** Optional hot asphalt-applied base and/or ply sheets or optional torch-applied base membrane approved for use with roof cover followed by CertainTeed Flintlastic GTA or GTS, Firestone APP 180 FR Cap, GAF Ruberoid Torch GR, Johns Manville APPeX 4.5M, Soprema Elastophene Flam GR or Sopralene Flam 180 or 250 GR or Siplast Paradiene 30 TG.

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered with FTR-190 adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate.  
*(Meets -210 psf with hot-applied, self-adhered or no vapor retarder)*  
*(Meets -169 psf with torch-applied vapor retarder)*  
 or  
 FiberTite FB roof cover adhered with FTR-290 adhesive at 1 gal/sq.  
*(Meets -105 psf)*  
 or  
 FiberTite FB roof cover adhered with FTR-390 adhesive at 1 gal. per 60 ft2.  
*(Meets -67.5 psf)*

**Maximum Design Pressure:** See Membrane Options above (See General Limitation #9)



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**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete  
**System Type A(13):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Insulation Base Layer:</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
<b>FTR-Value, AC Foam II, Multi-Max FA, H-Shield, ENRGY 3</b> Minimum: 1.5" thick	N/A	N/A
<b>Insulation Top Layer:</b> <b>FTR-Value, AC Foam II, Multi-Max FA, H-Shield, ENRGY 3</b> Minimum: 1.5 " thick	N/A	N/A
<b>FTR-Value, AC Foam II, Multi-Max FA, H-Shield, ENRGY 3</b> Tapered	N/A	N/A

**Note: All insulation shall be adhered to the substrate or vapor barrier in TITE-SET Roofing Adhesive applied in continuous 3-inch ribbons spaced 12" o.c. 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.**

**Vapor Retarder:** (Optional) Cold-applied vapor retarder as indicated below:

**Cold-applied:** Optional cold-applied base and/or ply sheet approved for use with the roof cover followed by CertainTeed Flintlastic GMS in FlintBond Adhesive, GAF Ruberoid 30 in Matrix 102 Adhesive, Johns Manville DynaGlas in MBR Adhesive, Polyglass Elastoflex VG in 1000 MB SBS Adhesive, Soprema Elastophene GR or Sopralene 180 or 250 GR in FM Adhesive or FM Adhesive (VOC) or Siplast Paradiene 30 in PA-311 Adhesive

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered with FTR-190 adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate.

or

FiberTite FB roof cover adhered with FTR-290 adhesive at 1 gal/sq. or with FTR-390 adhesive at 1 gal. per 60 ft<sup>2</sup>.

**Maximum Design Pressure:** -67.5 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete  
**System Type A(14):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Insulation Base Layer:</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
<b>FTR-Value, AC Foam II, Multi-Max FA, H-Shield, ENRGY 3</b> Minimum: 1.5" thick	N/A	N/A
<u>Insulation Top Layer:</u>		
<b>FTR-Value, AC Foam II, Multi-Max FA, H-Shield, ENRGY 3</b> Tapered	N/A	N/A

**Note: All insulation shall be adhered to the substrate or vapor barrier in TITE-SET Roofing Adhesive applied in continuous 3-inch ribbons spaced 12" o.c. 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.**

**Vapor Retarder:** (Optional) Hot-applied, Self-Adhering or Torch-applied vapor retarder as indicated below:

Hot-applied: Optional hot asphalt-applied base and/or ply sheets approved for use with roof cover followed by asphalt-applied CertainTeed Flintlastic GMS, Firestone SBS Cap, GAF Ruberoid 30, Johns Manville DynaGlas, Soprema Elastophene GR or Sopralene 180 or 250 GR or Siplast Paradiene 30.

Self-Adhered: Optional self-adhered base membrane approved for use with roof cover followed by CertainTeed Flintlastic SA Cap, GAF Liberty Cap, Johns Manville DynaGrip Cap or JMCleanBond Cap, Polyglass Elastoflex SA VG or Soprema Colphene FR GR or Colphene HR FR GR.

Torch-applied: Optional hot asphalt-applied base and/or ply sheets or optional torch-applied base membrane approved for use with roof cover followed by CertainTeed Flintlastic GTA or GTS, Firestone APP 180 FR Cap, GAF Ruberoid Torch GR, Johns Manville APPeX 4.5M, Soprema Elastophene Flam GR or Sopralene Flam 180 or 250 GR or Siplast Paradiene 30 TG.

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered with FTR-190 adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate.  
*(Meets -117 psf)*  
 or  
 FiberTite FB roof cover adhered with FTR-290 adhesive at 1 gal/sq.  
*(Meets -105 psf)*  
 or  
 FiberTite FB roof cover adhered with FTR-390 adhesive at 1 gal. per 60 ft2.  
*(Meets -67.5 psf)*

**Maximum Design Pressure:** See Membrane Options above (See General Limitation #9)



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**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete  
**System Type A(15):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Insulation Base Layer:</u> (Optional) FTR-Value, AC Foam II, Multi-Max FA, H-Shield, ENRGY 3 or ASTM C578 expanded or extruded polystyrene (min. 2.0 pcf)	<u>Fastener Density</u>	<u>Fastener Type</u>
Minimum: 1.5" thick	N/A	N/A
<u>Insulation Top Layer:</u> DensDeck Prime, Securock		
Minimum: 0.25 " thick	N/A	N/A

**Note: All insulation shall be adhered to the substrate or vapor barrier in TITE-SET Roofing Adhesive applied in continuous 3-inch ribbons spaced 12" o.c. 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.**

**Vapor Retarder:** (Optional) Hot-applied or Self-Adhering vapor retarder as indicated below:

**Hot-applied:** Optional hot asphalt-applied base and/or ply sheets approved for use with roof cover followed by asphalt-applied CertainTeed Flintlastic GMS, Firestone SBS Cap, GAF Ruberoid 30, Johns Manville DynaGlas, Soprema Elastophene GR or Sopralene 180 or 250 GR or Siplast Paradiene 30.

**Self-Adhered:** Optional self-adhered base membrane approved for use with roof cover followed by CertainTeed Flintlastic SA Cap, GAF Liberty Cap, Johns Manville DynaGrip Cap or JMCleanBond Cap, Polyglass Elastoflex SA VG or Soprema Colphene FR GR or Colphene HR FR GR.

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered with FTR-190 adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate.

Or

FiberTite-FB roof cover adhered with hot asphalt at 25 lbs/sq.

**Maximum Design Pressure:** -240 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete  
**System Type A(16):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Insulation Base Layer:</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
<b>(Optional) FTR-Value, AC Foam II, Multi-Max FA, H-Shield, ENRGY 3 or ASTM C578 Type IX expanded polystyrene (min. 1.8 pcf) or Type IV extruded polystyrene (min. 1.6 pcf)</b>		
Minimum: 1.5" thick	N/A	N/A

<u>Insulation Top Layer:</u>		
<b>DensDeck Prime, Securock</b>		
Minimum: 0.25" thick	N/A	N/A

**Note: All insulation shall be adhered to the substrate or vapor barrier in TITE-SET Roofing Adhesive applied in continuous 3-inch ribbons spaced 12" o.c. 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.**

**Vapor Retarder:** (Optional) Torch-applied vapor retarder as indicated below:

**Torch-applied:** Optional hot asphalt-applied base and/or ply sheets or optional torch-applied base membrane approved for use with roof cover followed by CertainTeed Flintlastic GTA or GTS, Firestone APP 180 FR Cap, GAF Ruberoid Torch GR, Johns Manville APPEX 4.5M, Soprema Elastophene Flam GR or Sopralene Flam 180 or 250 GR or Siplast Paradiene 30 TG

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered with FTR-190 adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate.

Or

FiberTite-FB roof cover adhered with hot asphalt at 25 lbs/sq.

**Maximum Design Pressure:** -169 psf (See General Limitation #9)



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**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete  
**System Type A(17):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Insulation Base Layer:</u> (Optional) FTR-Value, AC Foam II, Multi-Max FA, H-Shield, ENRGY 3	<u>Fastener Density</u>	<u>Fastener Type</u>
Minimum: 1.5" thick	N/A	N/A
<u>Insulation Top Layer:</u> DensDeck Prime, Securock		
Minimum: 0.25 " thick	N/A	N/A

**Note: All insulation shall be adhered to the substrate or vapor barrier in TITE-SET Roofing Adhesive applied in continuous 3-inch ribbons spaced 12" o.c. 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.**

**Vapor Retarder:** (Optional) Cold-applied vapor retarder as indicated below:

**Cold-applied:** Optional cold-applied base and/or ply sheet approved for use with the roof cover followed by CertainTeed Flintlastic GMS in FlintBond Adhesive, GAF Ruberoid 30 in Matrix 102 Adhesive, Johns Manville DynaGlas in MBR Adhesive, Polyglass Elastoflex VG in 1000 MB SBS Adhesive, Soprema Elastophene GR or Sopralene 180 or 250 GR in FM Adhesive or FM Adhesive (VOC) or Siplast Paradiene 30 in PA-311 Adhesive

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered with FTR-190 adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate.

Or

FiberTite-FB roof cover adhered with hot asphalt at 25 lbs/sq.

**Maximum Design Pressure:** -67.5 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete  
**System Type A(18):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Insulation Base Layer:</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
<b>(Optional) ASTM C578 Type IX expanded polystyrene (min. 1.8 pcf) or Type IV extruded polystyrene (min. 1.6 pcf)</b>		
Minimum: 1.5" thick	N/A	N/A

<u>Insulation Top Layer:</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
<b>DensDeck Prime, Securock</b>		
Minimum: 0.25 " thick	N/A	N/A

**Note: All insulation shall be adhered to the substrate or vapor barrier in TITE-SET Roofing Adhesive applied in continuous 3-inch ribbons spaced 12" o.c. 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.**

**Vapor Retarder:** (Optional) Hot-applied or Self-Adhering vapor retarder as indicated below:

**Hot-applied:** Optional hot asphalt-applied base and/or ply sheets approved for use with roof cover followed by asphalt-applied CertainTeed Flintlastic GMS, Firestone SBS Cap, GAF Ruberoid 30, Johns Manville DynaGlas, Soprema Elastophene GR or Sopralene 180 or 250 GR or Siplast Paradiene 30.

**Self-Adhered:** Optional self-adhered base membrane approved for use with roof cover followed by CertainTeed Flintlastic SA Cap, GAF Liberty Cap, Johns Manville DynaGrip Cap or JMCleanBond Cap, Polyglass Elastoflex SA VG or Soprema Colphene FR GR or Colphene HR FR GR.

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered with FTR-190 adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate.

Or

FiberTite-FB roof cover adhered with hot asphalt at 25 lbs/sq.

**Maximum** -180 psf (See General Limitation #9)

**Design Pressure:**



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Min. 200 psi Celcore or Mearlcrete LWIC cast over structural concrete  
**System Type A(19):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Insulation Base Layer:</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
<b>FTR-Value, AC Foam II, Multi-Max FA, H-Shield, ENRGY 3</b> Minimum: 1.5" thick	N/A	N/A
<b>Insulation Top Layer:</b> <b>FTR-Value, AC Foam II, Multi-Max FA, H-Shield, ENRGY 3</b> Minimum: 1.5" thick	N/A	N/A

**Note: All insulation shall be adhered to the substrate in TITE-SET Roofing Adhesive applied in continuous 3-inch ribbons spaced 12" o.c. 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.**

**Membrane:** FiberTite, FiberTite-SM, FiberTite-XT or FiberTite-XTreme roof cover adhered with FTR-190 adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate.  
*(Meets -210 psf) (for Celcore or Mearlcrete)*  
*(Meets -180 psf) (for Elastizell)*  
 or  
 FiberTite FB roof cover adhered with FTR-290 adhesive at 1 gal/sq.  
*(Meets -105 psf) (for Celcore, Mearlcrete or Elastizell)*  
 or  
 FiberTite FB roof cover adhered with FTR-390 adhesive at 1 gal. per 60 ft2.  
*(Meets -67.5 psf) (for Celcore, Mearlcrete or Elastizell)*

**Maximum Design Pressure:** See Membrane Options above (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Min. 200 psi Celcore, Mearlcrete or Elastizell LWIC cast over structural concrete  
**System Type A(20):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Insulation Base Layer:</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
<b>FTR-Value, AC Foam II, Multi-Max FA, H-Shield, ENRGY 3</b>		
Minimum: 1.5" thick	N/A	N/A

<u>Insulation Top Layer:</u>		
<b>FTR-Value, AC Foam II, Multi-Max FA, H-Shield, ENRGY 3</b>		
Tapered	N/A	N/A

**Note: All insulation shall be adhered to the substrate or vapor barrier in TITE-SET Roofing Adhesive applied in continuous 3-inch ribbons spaced 12" o.c. 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.**

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered with FTR-190 adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate.  
*(Meets -117 psf)*  
 or  
 FiberTite FB roof cover adhered with FTR-290 adhesive at 1 gal/sq.  
*(Meets -105 psf)*  
 or  
 FiberTite FB roof cover adhered with FTR-390 adhesive at 1 gal. per 60 ft2.  
*(Meets -67.5 psf)*

**Maximum Design Pressure:** See Membrane Options above (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Min. 200 psi Celcore, Mearlcrete or Elastizell LWIC cast over structural concrete  
**System Type A(21):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Insulation Base Layer (Optional):</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
<b>FTR-Value, AC Foam II, Multi-Max FA, H-Shield, ENRGY 3 or ASTM C578 expanded or extruded polystyrene (min. 2.0 pcf)</b> Minimum: 1.5" thick	N/A	N/A
<b><u>Insulation Top Layer:</u> DensDeck Prime, Securock</b> Minimum: 0.25 " thick	N/A	N/A

**Note: All insulation shall be adhered to the substrate or vapor barrier in TITE-SET Roofing Adhesive applied in continuous 3-inch ribbons spaced 12" o.c. 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.**

**Vapor Retarder:** None

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered with FTR-190 adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate.  
 Or  
 FiberTite-FB roof cover adhered with hot asphalt at 25 lbs/sq.

**Maximum Design Pressure:** -240.0 psf (for Mearlcrete)  
 -222.5 psf (for Celcore)  
 -180.0 psf (for Elastizell)  
 (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Min. 200 psi Celcore, Mearlcrete or Elastizell LWIC cast over structural concrete  
**System Type A(22):** One or more layers of insulation adhered with approved adhesive, membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Insulation Base Layer:</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
ASTM C578 Type IX expanded polystyrene (min. 1.8 pcf) or Type IV extruded polystyrene (min. 1.6 pcf)		
Minimum: 1.5" thick	N/A	N/A
<u>Insulation Top Layer:</u>		
DensDeck Prime, Securock		
Minimum: 0.25 " thick	N/A	N/A

**Note: All insulation shall be adhered to the substrate or vapor barrier in TITE-SET Roofing Adhesive applied in continuous 3-inch ribbons spaced 12" o.c. 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.**

**Vapor Retarder:** None  
**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered with FTR-190 adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate.  
 Or  
 FiberTite-FB roof cover adhered with hot asphalt at 25 lbs/sq.  
**Maximum Design Pressure:** -180 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**System Type A(23):** All layers of insulation adhered subsequently membrane adhered.

**All General and System Limitations apply.**

One or more layers of the following:

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>H-Shield, ENRGY-2, ENRGY3, ACFoam II, Multi-Max FA, Pyrox, FTR-Value</b> Minimum 1.0" thick	N/A	N/A

**Note: Substrate shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered to the substrate 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.**

**Vapor Barrier:** (Optional) Any approved asphaltic vapor barrier, or existing BUR.

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered to the insulation with FTR-190 Bonding Adhesive applied at an application rate of 1 gal./sq.

**Maximum Design Pressures:** -210.0 psf (See General Limitation #9.)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete/lightweight concrete/cementitious wood fiber/wood/steel  
**System Type B(1):** Base layer of insulation mechanically attached, top layer adhere; membrane adhered.

**All General and System Limitations apply.**

One or more layers of the following:

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>FTR-Value, Multi-Max FA, H-Shield, ENRGY-2, ENRGY-3</b>		
Minimum 1.5" thick	Approved Fastener for Deck Type	1:2 ft <sup>2</sup>
Minimum 2" thick	Approved Fastener for Deck Type	1:4 ft <sup>2</sup>
<b>DensDeck, DensDeck Prime</b>		
Minimum 0.25" thick	Approved Fastener for Deck Type	1:2 ft <sup>2</sup>
<b>FTR-Value, Multi-Max FA, H-Shield, ENRGY-2, ENRGY-3</b>		
Minimum 1.5" thick	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>FTR-Value, Multi-Max FA, H-Shield, ENRGY-2, ENRGY-3</b>		
Minimum 1.5" thick	N/A	N/A
<b>DensDeck, DensDeck Prime</b>		
Minimum 0.25" thick	N/A	N/A

**Note:** Apply optional top layer of insulation in a full mopping of any approved mopping hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup> or in ¾" to 1" wide beads 12" o.c. of FTR 601 or Insta-Stik Adhesive or OlyBond Adhesive Fastener at application rate of 1gal/100 ft<sup>2</sup>. Refer to Roofing Application Standard RAS 117 and insulation adhesive manufacturer's Roofing Component Product Control Approval for insulation attachment requirements. Insulations listed as base layer shall be used only as base layers with an optional top layer insulation installed as the final membrane substrate.

**Vapor Retarders:** (Optional) Any UL or FM approved vapor retarder applied to the existing roof or over a base layer of insulation.

**Barrier:** (Optional) ¼" DensDeck applied to the base or top insulation layer in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft<sup>2</sup> or in ¾" to 1" wide beads 12" o.c. of FTR 601 or Insta-Stik Adhesive or OlyBond Adhesive Fastener at application rate of 1gal/100 ft<sup>2</sup> or Type X gypsum applied in ¾" to 1" wide beads of Insta-Stik Adhesive, 12" o.c.



**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered to the insulation with FTR-190 Bonding Adhesive applied at an application rate of 1 gal./sq. to the backside of the membrane and to the substrate. Or

FiberTite FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., FTR-290 solvent adhesive at 1 gal. per 100 ft<sup>2</sup> or FTR-390 asphalt based adhesive at 1 gal. per 60 ft<sup>2</sup>.

**Maximum Design Pressure:** -67.5 psf (for 1.5" thick polyiso. at 1 fastener per 2 ft<sup>2</sup> over steel or concrete with FiberTite or FiberTite XT) (See General Limitation #9.)

-60 psf (for 2" thick polyiso. at 1 fastener per 4 ft<sup>2</sup> over steel or concrete with FiberTite or FiberTite XT) (See General Limitation #9.)

-45 psf (for all other substrates, insulation attachment options and with FiberTite FB applications) (See General Limitation #9.)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete/Steel  
**System Type B(2):** Base layer of insulation mechanically attached, top layer adhered; membrane adhered

**All General and System Limitations apply.**

One or more layers of the following insulations:

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam II, FTR-Value</b> Minimum 2" thick	OMG (HD#14) or Dekfast (#14)	1: 4 ft <sup>2</sup>

**Note: Base 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).**

<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Securock</b> Minimum 0.5" thick	N/A	N/A

**Note: Apply top layer of insulation in a full mopping of any approved mopping hot asphalt within the EVT range and at a rate of 25 lbs/100 ft<sup>2</sup> or Olybond applied in a full coating application of 1gal/100 ft<sup>2</sup> or ¾" to 1" wide beads 12" o.c. of FTR 601, Olybond 500, Weathertite One Step Foamable Insulation Adhesive or Insta-Stik Adhesive. 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.**

**Membrane:** FiberTite, XT, SM or XTreme roof cover adhered to the insulation with FTR-190 Bonding Adhesive applied at an application rate of 50 ft<sup>2</sup>/gal.

Or

FiberTite FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., FTR-290 solvent adhesive at 90 ft<sup>2</sup>/gal or FTR-490 water based adhesive at 100 ft<sup>2</sup>/gal.

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



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete/lightweight concrete/cementitious wood fiber/wood/steel  
**System Type C(1):** All layers of insulation simultaneously attached; membrane adhered.

**All General and System Limitations apply.**

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>FTR-Value, Multi-Max FA, H-Shield, ENRGY-2, ENRGY-3</b>		
Minimum 1" thick	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>FTR-Value, Multi-Max FA, H-Shield, ENRGY-2, ENRGY-3</b>		
Minimum 1.5" thick	Approved Fastener for Deck Type	1:2 ft <sup>2</sup>
Minimum 2" thick	Approved Fastener for Deck Type	1:4 ft <sup>2</sup>
<b>DensDeck, DensDeck Prime</b>		
Minimum 0.5" thick	Approved Fastener for Deck Type	1:1.7 ft <sup>2</sup>
Minimum 0.25" thick	Approved Fastener for Deck Type	1:1.3 ft <sup>2</sup>

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

**Vapor Retarder:** (Optional) Any UL or FMRC approved vapor retarder may be installed over the substrate or the base layer of insulation.

**Barrier:** None.

**Membrane:** FiberTite or FiberTite XT roof cover adhered to the insulation with FTR-190 Bonding Adhesive applied at an application rate of 1 gal./sq. to the backside of the membrane and to the substrate

Or

FiberTite FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., FTR-290 solvent adhesive at 1 gal. per 100 ft<sup>2</sup> or FTR-390 asphalt based adhesive at 1 gal. per 60 ft<sup>2</sup>.

**Maximum Design Pressure:**

- 67.5 psf (for 1.5" thick polyiso. at 1 fastener per 2 ft<sup>2</sup> over steel or concrete with FiberTite or FiberTite XT) (See General Limitation #9.)
- 60 psf (for 2" thick polyiso. at 1 fastener per 4 ft<sup>2</sup> over steel or concrete with FiberTite or FiberTite XT) (See General Limitation #9.)
- 50 psf (for ¼" thick Dens Deck at 1 fastener per 1.3 ft<sup>2</sup> over steel or concrete with FiberTite or FiberTite XT) (See General Limitation #9.)
- 45 psf (for all other substrates, insulation attachment options and with FiberTite FB applications) (See General Limitation #9.)



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**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete/Steel  
**System Type C(2):** All layers of insulation simultaneously attached; membrane adhered.

**All General and System Limitations apply.**

One or more layers of the following.

<b>Base Insulation Layer</b>		<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>(Optional) Any Insulation, Approved for use with Roof Cover</b>			
Minimum 0.25" thick		N/A	N/A
<b>Top Insulation Layer</b>		<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>Securock</b>			
<b>Fastening #1:</b>	Minimum 0.25" thick	OMG (HD #14)	1:1.33 ft <sup>2</sup>
<b>Fastening #2:</b>	Minimum 0.25" thick	OMG (HD #14)	1:3.2 ft <sup>2</sup>
<b>Fastening #3:</b>	Minimum 0.375" thick	OMG (HD #14) or Dekfast (#14)	1:2.7 ft <sup>2</sup>
<b>Fastening #4:</b>	Minimum 0.625" thick	OMG (HD #14)	1:1.6 ft <sup>2</sup>

**Note: All layers shall be simultaneously fastened; see top or base 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:** FiberTite, XT, SM or XTreme roof cover adhered to the insulation with FTR-190 Bonding Adhesive applied at an application rate of 50 ft<sup>2</sup>/gal.  
 Or  
 FiberTite FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., FTR-290 solvent adhesive at 90 ft<sup>2</sup>/gal or FTR-490 water based adhesive at at 100 ft<sup>2</sup>/gal.

**Maximum Design Pressures:** Meets -105.0 psf for *Fastening # 1 (See General Limitation #7.)*  
 Meets -45 psf for *Fastening #2 (See General Limitation #9)*  
 Meets -45 psf for *Fastening #3 (See General Limitation # 9)*  
 Meets -82.5 psf for *Fastening #4 (See General Limitation #7)*



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete/lightweight concrete/cementitious wood fiber/wood/steel  
**System Type D(1):** Membrane mechanically attached over preliminary fastened insulation.

**All General and System Limitations apply.**

One or more layers of the following:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
<b>(Optional) FTR-Value, AC Foam II</b> Minimum 1" thick	N/A	N/A
<b>(Optional) ENRGY-2</b> Minimum 1.4" thick	N/A	N/A
<b>(Optional) Multi-Max, AC Foam Composite, EnergyGuard Composite, Thermarroof Composite, ENRGY-2 Composite</b> Minimum 1.5" thick	N/A	N/A

**Note:** All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Vapor Retarders:** (Optional) Any UL or FMRC approved vapor retarder applied to the substrate or over a base layer of insulation.

**Barrier:** (Optional) ¼" DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet or Tritex Rocroof or 3 plies of Elk VersaShield loose laid.

**Membrane:** FiberTite, XT, SM or XTreme roof cover attached through the preliminary fastened insulation to the deck as specified below:

**Fastening #1:** Fasten with Olympic ASAP (wood, steel, concrete) fasteners spaced 18" o.c. through the 3.5" head laps or fastening tabs spaced 48" o.c.  
*Maximum Design Pressure –45 psf (See General Limitation #9.)*

**Fastening #2:** Fasten with Olympic ASAP (wood, steel, concrete) or FTR ESL (wood, steel) fasteners spaced 6" o.c. through the 3.5" head laps or fastening tabs spaced 98" o.c.  
*Maximum Design Pressure –45 psf (See General Limitation #7.)*

**Fastening #3:** (cementitious wood fiber and gypsum only) Fasten with NTB. fasteners with 2" diameter head or Powerlite fasteners and Powerlite Lap Plates stress plates 6" o.c. through the fastening tabs spaced 51" o.c.  
*Maximum Design Pressure –45 psf (See General Limitation #9.)*

**Fastening #4:** Fasten with Olympic ASAP fasteners (wood, steel, concrete) 6" o.c. through the top of the roof cover at maximum intervals of 9 feet. Fastener rows are sealed by either welding a 6" cover strip or prefabricated 4.5" surface tab (closed lap configuration) over the fasteners. The edge of the stripping and/or surface tabs shall be welded a minimum of 1".  
*Maximum Design Pressure –52.5 psf (See General Limitation #7.)*

**Fastening #5:** Fasten with FTR MAGNUM fasteners (steel, concrete) or FTR Spikes (concrete) and FTR MAGNUM stress plates 12" o.c. through the 3.5" head laps or fastening tabs spaced 53" o.c.  
*Maximum Design Pressure –52.5 psf (See General Limitation #7.)*

**Maximum Design Pressures:** See Fastings Options Above



**Membrane Type:** Single Ply, Thermoplastic

**Deck Type 7I:** Recover, Insulated

**Deck Description:** Concrete/steel

**System Type D(2):** Membrane mechanically attached over preliminary fastened insulation.

**All General and System Limitations apply.**

One or more layers of the following:

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>(Optional) Any approved polyisocyanurate</b> Minimum 1.5" thick	N/A	N/A

**Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.**

**Vapor Retarders:** (Optional) Any UL or FM approved vapor retarder applied to the substrate or over a base layer of insulation.

**Barrier:** (Optional) ¼" DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet or Tritex Rocroof or 3 plies of Elk VersaShield loose laid.

**Deck :** Structural Concrete or minimum 22 ga., 1.5" deep, ASTM A611, Grade E or ASTM A446, Grade E steel decking placed over minimum 0.25" thick structural supports having maximum 6 ft spans. Deck shall be anchored with ITW Buildex Traxx/4 or Traxx/5 fasteners spaced at maximum 6" o.c. at supports. Deck side laps shall be secured with ITW Buildex Traxx/1 fasteners spaced at a maximum 30" o.c.

**Membrane:** FiberTite, XT, SM or XTreme roof cover attached through the presecured insulation to the deck using FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and MAGNUM Plates 12" o.c. through the tabs spaced a maximum of 24" o.c.

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



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete/steel  
**System Type D(3):** Membrane mechanically attached over preliminary fastened insulation.

**All General and System Limitations apply.**

One or more layers of the following:

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>(Optional) Any approved polyisocyanurate Minimum 1" thick</b>	N/A	N/A

**Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.**

**Vapor Retarders:** (Optional) Any UL or FM approved vapor retarder applied to the substrate or over a base layer of insulation.

**Barrier:** (Optional) ¼" DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet or Tritex Rocroof or 3 plies of Elk VersaShield loose laid.

**Deck :** Structural Concrete or minimum 22 ga., type B, steel decking placed over minimum 0.25" thick structural supports having maximum 6 ft spans. Deck shall be anchored with ITW Buildex Traxx/4 or Traxx/5 fasteners spaced at maximum 6" o.c. at supports. Deck side laps shall be secured with ITW Buildex Traxx/1 fasteners spaced at a maximum 18" o.c.

**Membrane:** FiberTite, XT, SM or XTreme roof cover attached through the presecured insulation to the deck using FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and MAGNUM Plates spaced 6" o.c. through the tabs spaced a maximum of 51" o.c.

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



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete/steel  
**System Type D(4):** Membrane mechanically attached over preliminary fastened insulation.

**All General and System Limitations apply.**

One or more layers of the following:

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>(Optional) Any approved polyisocyanurate Minimum 1" thick</b>	N/A	N/A

**Note:** All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Vapor Retarders:** (Optional) Any UL or FM approved vapor retarder applied to the substrate or over a base layer of insulation.

**Barrier:** (Optional) ¼" DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet or Tritex Rocroof or 3 plies of Elk VersaShield loose laid.

**Deck :** Structural Concrete or minimum 22 ga., type B, steel decking placed over minimum 0.25" thick structural supports having maximum 5 ft spans. Deck shall be anchored with ITW Buildex Traxx/4 or Traxx/5 fasteners spaced at maximum 6" o.c. at supports. Deck side laps shall be secured with ITW Buildex Traxx/1 fasteners spaced at a maximum 18" o.c.

**Membrane:** FiberTite TopSider system consisting of FiberTite, XT, SM or XTreme attached using FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and MAGNUM Plates spaced 6" o.c. through the top of the membrane at intervals of 104.5".

**Maximum Design Pressures:** -90 psf (See General Limitation #7.)



- Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete/steel  
**System Type D(5):** Membrane mechanically attached over preliminary fastened insulation.

**All General and System Limitations apply.**

One or more layers of the following:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
<b>(Optional) Any approved polyisocyanurate</b> Minimum 1.5" thick	N/A	N/A

**Note:** All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Vapor Retarders:** (Optional) Any UL or FM approved vapor retarder applied to the substrate or over a base layer of insulation.

**Barrier:** (Optional) ¼" DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet or Tritex Rocroof or 3 plies of Elk VersaShield loose laid.

**Deck :** Structural Concrete or minimum 22 gage ASTM A 611 Grade E Type B Steel deck fastened to steel support at a maximum span of 6' o.c. Steel deck shall be fastened with ITW Buildex Traxx/5 at a maximum spacing of 6" o.c. Side laps shall be fastened with Traxx/1 screws at a maximum spacing of 30 inches o.c.

**Membrane:** FiberTite, FiberTite XT, FiberTite SM or FiberTite XTreme secured through the preliminarily attached insulation as specified below.

**Fastening #1:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and MAGNUM Plates space 18" o.c. within the 5" open laps in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded.

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

**Fastening #2:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and MAGNUM Plates space 12" o.c. in the 5" open laps in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded.

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

**Fastening #3:** Fasten with FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and FTR MAGNUM Plates 6" o.c. through the top of the roof cover at maximum intervals of 104.5" Fastener rows are sealed by either welding a 6" cover strip or prefabricated 4.5" surface tab.(closed lap configuration) over the fasteners. The edge of the stripping and/or surface tabs shall be welded a minimum of 1".

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

**Fastening #4:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and MAGNUM Plates space 6" o.c. within the 5" closed laps in rows spaced 104.5" o.c. The outside 1.5" of the laps is heat welded.

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

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



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete/steel  
**System Type D(6):** Membrane mechanically attached over preliminary fastened insulation.

**All General and System Limitations apply.**

One or more layers of the following:

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>(Optional) Any approved polyisocyanurate</b> Minimum 1.5" thick	N/A	N/A

**Note:** All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Vapor Retarders:** (Optional) Any UL or FM approved vapor retarder applied to the substrate or over a base layer of insulation.

**Barrier:** (Optional) ¼" DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet or Tritex Rocroof or 3 plies of Elk VersaShield loose laid.

**Deck :** Structural Concrete or minimum 22 gage ASTM A653 SS Grade 33 Type B Steel deck fastened to steel support at a maximum span of 6' o.c. Steel deck shall be fastened with SFS Intec Impax 5 or ITW Buildex Traxx/5 at a maximum spacing of 6" o.c. Side laps shall be fastened with SFS Intec ¼-14 Lap Tek or Traxx/1 screws at a maximum spacing of 30 inches o.c.

**Membrane:** FiberTite, FiberTite XT, FiberTite SM or FiberTite XTreme secured through the preliminarily attached insulation as specified below.

**Fastening #1:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and MAGNUM Plates space 12" o.c. in the 5" lap of membrane in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded.  
*Maximum Design Pressure -52.5 psf. (See General Limitation #7)*

**Fastening #2:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and MAGNUM Plates space 6" o.c. in the 5" lap of membrane in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded.  
*Maximum Design Pressure -60 psf. (See General Limitation #7)*

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



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete/steel  
**System Type D(7):** Membrane mechanically attached over preliminary fastened insulation.

**All General and System Limitations apply.**

One or more layers of the following:

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>(Optional) Any approved polyisocyanurate</b> Minimum 1.5" thick	N/A	N/A

**Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.**

**Vapor Retarders:** (Optional) Any UL or FM approved vapor retarder applied to the substrate or over a base layer of insulation.

**Barrier:** (Optional) ¼" DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet or Tritex Rocroof or 3 plies of Elk VersaShield loose laid.

**Deck :** Structural Concrete or minimum 22 gage ASTM A1008 SS Grade 80 Type B Steel deck fastened to steel support at a maximum span of 6' o.c. Steel deck shall be fastened with SFS Intec Impax 5 or ITW Buildex Traxx/5 at a maximum spacing of 6" o.c. Side laps shall be fastened with SFS Intec ¼-14 Lap Tek or Traxx/1 screws at a maximum spacing of 30 inches o.c.

**Membrane:** FiberTite, FiberTite XT, FiberTite SM or FiberTite XTreme secured through the preliminarily attached insulation as specified below.

**Fastening #1:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and MAGNUM Plates space 6" o.c. in the 5" lap of membrane in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded.  
*Maximum Design Pressure -60 psf. (See General Limitation #7)*

**Fastening #2:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and MAGNUM Plates space 12" o.c. in the 5" lap of membrane in rows spaced 72" o.c. The outside 1.5" of the lap is heat welded.  
*Maximum Design Pressure -45 psf. (See General Limitation #7)*

**Fastening #3:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and MAGNUM Plates space 6" o.c. in the 5" lap of membrane in rows spaced 96" o.c. The outside 1.5" of the lap is heat welded.  
*Maximum Design Pressure -52.5 psf. (See General Limitation #7)*

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



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete/steel  
**System Type D(8):** Membrane mechanically attached over preliminary fastened insulation.

**All General and System Limitations apply.**

One or more layers of the following:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
(Optional) Any approved polyisocyanurate Minimum 1.5" thick	N/A	N/A

**Note:** All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Vapor Retarders:** (Optional) Any UL or FM approved vapor retarder applied to the substrate or over a base layer of insulation.

**Barrier:** (Optional) ¼" DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet or Tritex Rocroof or 3 plies of Elk VersaShield loose laid.

**Deck :** Structural Concrete or minimum 20 gage ASTM A653 SS Grade 33 Type B Steel deck fastened to steel support at a maximum span of 6' o.c. Steel deck shall be fastened with SFS Intec Impax 5 or ITW Buildex Traxx/5 at a maximum spacing of 6" o.c. Side laps shall be fastened with SFS Intec ¼-14 Lap Tek or Traxx/1 screws at a maximum spacing of 30 inches o.c.

**Membrane:** FiberTite, FiberTite XT, FiberTite SM or FiberTite XTreme secured through the preliminarily attached insulation as specified below.

**Fastening #1:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and MAGNUM Plates space 12" o.c. in the 5" lap of membrane in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded.  
*Maximum Design Pressure –52.5 psf. (See General Limitation #7)*

**Fastening #2:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and MAGNUM Plates space 6" o.c. in the 5" lap of membrane in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded.  
*Maximum Design Pressure -67.5 psf. (See General Limitation #7)*

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



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Steel/Concrete  
**System Type D(9):** Membrane mechanically attached over preliminary fastened insulation.

**All General and System Limitations apply.**

<b>Insulation Layer</b>	<b>Insulation Fasteners</b>	<b>Fastener Density</b>
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**(Optional) Any approved polyisocyanurate**

Minimum 1.5" thick

N/A

N/A

**Note:** All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Vapor Retarders:** (Optional) Any UL or FM approved vapor retarder applied to the substrate or over a base layer of insulation.

**Barrier:** (Optional) ¼" DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet or Tritex Rocroof or 3 plies of Elk VersaShield loose laid.

**Membrane:** FiberTite, XT, SM or XTreme secured through the preliminarily attached insulation as specified below.

**Fastening #1:** FTR MAGNUM Fasteners with FTR Magnum 2<sub>s</sub> Plates, or FTR Magnum Belted System or Dekfast fasteners with Dekfast Galvalume Steel Round 2-3/8" 20-Ga. Barbed Plates or Dekfast #15 fasteners and Dekfast Isofast IF-2.375-AI Membrane Plate, spaced 6" o.c. within the 5" open laps in rows spaced 144.0" o.c. The outside 1.5" of the lap is heat welded, or installed through integral 3-1/2" fastening tab.

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

**Fastening #2:** FTR MAGNUM Fasteners with FTR Magnum 2<sub>s</sub> Plates, or FTR Magnum Belted System or Dekfast fasteners with Dekfast Galvalume Steel Round 2-3/8" 20-Ga. Barbed Plates or Dekfast #15 fasteners and Dekfast Isofast IF-2.375-AI Membrane Plate, spaced 6" o.c. through the top of the roof cover in rows spaced 144.0" o.c.. Rows are sealed by either welding a 6" cover strip or prefabricated 4.5" surface tab (closed lap configuration) over the fasteners. The edge of tab or both edges of cover strip are heat welded min. 1.5".

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

**Fastening #3:** FTR MAGNUM Fasteners with FTR Magnum 2<sub>s</sub> Plates, or FTR Magnum Belted System or Dekfast fasteners with Dekfast Galvalume Steel Round 2-3/8" 20-Ga. Barbed Plates or Dekfast #15 fasteners and Dekfast Isofast IF-2.375-AI Membrane Plate, spaced 6" o.c. within the 5" open laps in rows spaced 72.0" o.c. The outside 1.5" of the lap is heat welded, or installed through integral 3-1/2" fastening tab.

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

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



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**Approval Date:** 05/04/06  
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**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7I:** Recover, Insulated  
**Deck Description:** Concrete  
**System Type D(10):** Membrane mechanically attached over preliminary fastened insulation.

**All General and System Limitations apply.**

One or more layers of the following insulations:

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>(Optional) FTR-Value, ACFoam II, ACFoam II, Multi-Max, Multi-Max FA, Multi-Max FA-3, ENRGY-2, ENRGY-3, H-Shield</b> Minimum 1" thick	N/A	N/A
<b>(Optional) DensDeck, DensDeck Prime, Securock</b> Minimum 0.25" thick	N/A	N/A

**Note:** All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Vapor Retarders:** (Optional) Any UL or FM approved vapor retarder applied to the substrate or over a base layer of insulation.

**Barrier:** (Optional) ¼" DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet or Tritex Rocroof or 3 plies of Elk VersaShield loose laid

**Membrane:** FiberTite, XT, SM, Xtreme roof cover attached through the preliminary fastened insulation to the deck following one of the fastening methods specified below:

**Fastening #1:** Fasten with FTR MAGNUM, Olympic #14 or TruFast CF Tap-Grip fasteners and FTR MAGNUM Plates 6" o.c. through 5" wide open laps with a minimum 1.5" field weld or through 3.5" fastening tabs; spaced 51" o.c.  
**Maximum Design Pressure -112.5 psf. (See General Limitation #7)**

**Fastening #2:** Fasten with FTR MAGNUM, Olympic #14 or TruFast CF Tap-Grip fasteners and FTR MAGNUM Plates 6" o.c. through roof cover in rows spaced 51" o.c. Rows are sealed by either welding a 6" cover strip or prefabricated 4.5" surface tab (closed lap configuration) over the fasteners. The edge of tab or both edges of cover strip are heat welded min. 1.5".  
**Maximum Design Pressure -112.5 psf. (See General Limitation #7)**

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



**Membrane Type:** Single Ply, Thermoplastic

**Deck Type 7:** Recover, Noninsulated

**Deck Description:** Concrete/steel

**System Type E(1):** Membrane mechanically attached to deck.

**All General and System Limitations apply.**

**Deck Description:** Structural Concrete or Minimum 22 ga., 1.5" deep, ASTM A611, Grade E or ASTM A446, Grade E steel decking placed over minimum 0.25" thick structural supports having maximum 6 ft spans. Deck shall be anchored with ITW Buildex Traxx/4 or Traxx/5 fasteners spaced at maximum 6" o.c. at supports. Deck side laps shall be secured with ITW Buildex Traxx/1 fasteners spaced at a maximum 30" o.c.

**Membrane:** FiberTite, XT, SM or XTreme roof cover attached through the existing roof to the deck as specified below:

**Fastening:** Fasten with FTR MAGNUM fasteners (steel, concrete) or FTR Spikes (concrete) and FTR MAGNUM stress plates 12" o.c. through the 3.5" head laps or fastening tabs spaced 24" o.c.

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



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7:** Recover, Noninsulated  
**Deck Description:** Concrete/lightweight concrete/cementitious wood fiber/wood/steel  
**System Type E(2):** Membrane mechanically attached to deck.

**All General and System Limitations apply.**

**Barrier:** (Optional) Minimum ¼" DensDeck or DensDeck Prime, 5/8" Gypsum or ¾" Rockwool preliminary fastened with approved fasteners or one layer of Tritex Rocroof or two layers of Elk VersaShield Underlayment, loose laid.

**Membrane:** FiberTite, XT, SM or XTreme roof cover attached to the deck as specified below:

**Fastening#1:** Fasten with FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and MAGNUM Plates 18" o.c. through tabs spaced 51" o.c.  
*Maximum Design Pressure –45 psf (See General Limitation #7.)*

**Fastening #2:** Fasten with FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and MAGNUM Plates 9" o.c. through tabs spaced 51" o.c.  
*Maximum Design Pressure –52.5 psf (See General Limitation #7.)*

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



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7:** Recover, Noninsulated  
**Deck Description:** Concrete/steel  
**System Type E(3):** Membrane mechanically attached to deck.

**All General and System Limitations apply.**

Minimum 200 psi approved cellular lightweight concrete deck system.

**Vapor Retarders:** (Optional) Any UL or FMRC approved vapor retarder applied to the substrate.

**Barrier:** (Optional) ¼" DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet, min. ¾" Toprock attached with 2 fasteners per 4' x 4' sheet or Tritex Rocroof loose laid.

**Membrane:** FiberTite, XT, SM or XTreme roof cover attached through lightweight concrete to the deck using FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and MAGNUM Plates spaced 12" o.c. through the tabs spaced 51" o.c.

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



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7:** Recover  
**Deck Description:** Concrete/steel/lightweight concrete  
**System Type E(4):** Membrane mechanically attached to deck.

**All General and System Limitations apply.**

**Deck:** Minimum 22 ga., type B, steel decking placed over minimum 0.25" thick structural supports having maximum 5 ft spans. Deck shall be anchored with min. 5/8" puddle welds or Traxx/4 or Traxx/5 fasteners spaced at maximum 6" o.c. at supports. Deck side laps shall be secured with ITW Buildex Traxx/1 fasteners spaced at a maximum 18" o.c. or minimum 2500 psi structural concrete.

**Lightweight Concrete:** Minimum 200 psi cellular concrete.

**Membrane:** FiberTite TopSider system consisting of FiberTite, XT, SM or XTreme attached to underlying steel deck using FTR MAGNUM Fasteners and Plates spaced 6" o.c. through the top of the membrane at intervals of 104.5".

**Maximum Design Pressure:** -90 psf; (See General Limitation #7.)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7:** Recover, Noninsulated  
**Deck Description:** Concrete/steel/lightweight concrete  
**System Type E(5):** Membrane mechanically attached to deck.

**All General and System Limitations apply.**

**Deck:** 18-22 ga. Steel deck or minimum 2500 psi structural concrete.

**Lightweight Concrete:** Minimum 200 psi cellular concrete.

**Vapor Retarders:** (Optional) Any UL or FMRC approved vapor retarder applied to the substrate.

**Barrier:** (Optional) ¼" DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet or Tritex Rocroof or 3 plies of Elk VersaShield loose laid.

**Membrane:** FiberTite, XT, SM or XTreme roof cover attached to the deck as specified below:

**Fastening #1:** Fasten with Olympic ASAP fasteners 18" o.c. through the 3.5" head laps or fastening tabs spaced 48" o.c.

*Maximum Design Pressure –45 psf (See General Limitation #9.)*

**Fastening #2:** Fasten with Olympic ASAP fasteners or FTR ESL fasteners 6" o.c. through the 3.5" head laps or fastening tabs spaced 98" o.c..

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

**Fastening #3:** Fasten with Olympic ASAP fasteners 6" o.c. through the top of the roof cover at maximum intervals of 9 feet. Fastener rows are sealed by either welding a 6" cover strip or prefabricated 4.5" surface tab (closed lap configuration) over the fasteners. The edge of the stripping and/or surface tabs shall be welded a minimum of 1".

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

**Fastening #4:** Fasten with FTR MAGNUM fasteners and stress plates 12" o.c. through the 3.5" head laps or fastening tabs spaced 53" o.c.

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

**Maximum Design Pressures:** See Fastings Options Above



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7:** Recover, Noninsulated  
**Deck Description:** Concrete/steel/lightweight concrete  
**System Type E(6):** Membrane mechanically attached to deck.

**All General and System Limitations apply.**

Minimum 200 psi approved cellular lightweight concrete deck system.

**Deck:** Minimum 22 ga., type B, steel decking placed over minimum 0.25" thick structural supports having maximum 5 ft spans. Deck shall be anchored with ITW Buildex Traxx/4 or Traxx/5 fasteners spaced at maximum 6" o.c. at supports. Deck side laps shall be secured with ITW Buildex Traxx/1 fasteners spaced at a maximum 18" o.c. or minimum 2500 psi structural concrete.

**Lightweight Concrete:** Minimum 200 psi cellular concrete.

**Vapor Retarders:** (Optional) Any UL or FM approved vapor retarder applied to the substrate.

**Barrier:** (Optional) ¼" DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet or Tritex Rocroof or 3 plies of Elk VersaShield loose laid.

**Membrane:** FiberTite TopSider system consisting of FiberTite, XT, SM or XTreme attached using FTR MAGNUM Fasteners and Plates spaced 6" o.c. through the top of the membrane at intervals of 104.5".

*(Meets -90 psf) (See General Limitation #7)*

Or

FiberTite, XT, SM or XTreme roof cover attached through the presecured insulation to the deck using FTR MAGNUM fasteners and Plates spaced 6" o.c. through the tabs spaced a maximum of 51" o.c.

*(Meets -75 psf) (See General Limitation #7)*

**Maximum Design Pressures:** See Membrane attachment above.



- Membrane Type:** Single Ply, Thermoplastic
- Deck Type 7:** Recover, Noninsulated
- Deck Description:** Concrete/steel/lightweight concrete
- System Type E(7):** Membrane mechanically attached to deck.

**All General and System Limitations apply.**

- Deck:** Minimum 22 gage ASTM A 611 Grade E Type B Steel deck fastened to steel support at a maximum span of 6' o.c. Steel deck shall be fastened with ITW Buildex Traxx/5 at a maximum spacing of 6" o.c. Side laps shall be fastened with Traxx/1 screws at a maximum spacing of 30 inches o.c., minimum 2500 psi structural concrete.
- Lightweight Concrete:** Minimum 200 psi cellular concrete.
- Vapor Retarders:** (Optional) Any UL or FM approved vapor retarder applied to the substrate.
- Barrier:** (Optional) ¼" DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet or Tritex Rocroof or 3 plies of Elk VersaShield loose laid.
- Membrane:** FiberTite, FiberTite XT, FiberTite SM or FiberTite XTreme secured through the preliminarily attached insulation as specified below.
- Fastening #1:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and FTR MAGNUM Plates spaced 18" o.c. within the 5" open laps in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded.  
*Maximum Design Pressure -45 psf. (See General Limitation #7)*
- Fastening #2:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and FTR MAGNUM Plates 12" o.c. in the 5" open laps in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded.  
*Maximum Design Pressure -60 psf. (See General Limitation #7)*
- Fastening #3:** Fasten with FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and FTR MAGNUM Plates 6" o.c. through the top of the roof cover at maximum intervals of 104.5" Fastener rows are sealed by either welding a 6" cover strip or prefabricated 4.5" surface tab.(closed lap configuration) over the fasteners. The edge of the stripping and/or surface tabs shall be welded a minimum of 1".  
*Maximum Design Pressure -75 psf. (See General Limitation #7)*
- Fastening #4:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and FTR MAGNUM Plates 6" o.c. within the 5" closed laps in rows spaced 104.5" o.c. The outside 1.5" of the laps is heat welded.  
*Maximum Design Pressure -82.5 psf. (See General Limitation #7)*
- Maximum Design Pressures:** See Fastening Options Above



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7:** Recover, Noninsulated  
**Deck Description:** Concrete/steel/lightweight concrete  
**System Type E(8):** Membrane mechanically attached to deck.

**All General and System Limitations apply.**

**Vapor Retarders:** (Optional) Any UL or FM approved vapor retarder applied to the substrate.  
**Barrier:** (Optional) ¼" DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet, min. ¾" Toprock attached with 2 fasteners per 4' x 4' sheet or Tritex Rocroof loose laid.

**Lightweight Concrete:** Minimum 200 psi cellular concrete.

**Membrane:** FiberTite, FiberTite XT, FiberTite SM or FiberTite XTreme secured through the lightweight concrete as specified below.

**Deck:** Minimum 2500 psi structural concrete deck or Minimum 22 gage ASTM A653 SS Grade 33 Type B Steel deck fastened to steel support at a maximum span of 6' o.c. Steel deck shall be fastened with SFS Intec Impax 5 or ITW Buildex Traxx/5 at a maximum spacing of 6" o.c. Side laps shall be fastened with SFS Intec ¼-14 Lap Tek or Traxx/1 screws at a maximum spacing of 30 inches o.c.

**Fastening #1:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and FTR MAGNUM Plates spaced 12" o.c. in the 5" lap of membrane in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded.

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

**Fastening #2:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and FTR MAGNUM Plates spaced 6" o.c. in the 5" lap of membrane in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded.

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

**Deck:** Minimum 2500 psi structural concrete deck or Minimum 22 gage ASTM A1008 SS Grade 80 Type B Steel deck fastened to steel support at a maximum span of 6' o.c. Steel deck shall be fastened with SFS Intec Impax 5 or ITW Buildex Traxx/5 at a maximum spacing of 6" o.c. Side laps shall be fastened with SFS Intec ¼-14 Lap Tek or Traxx/1 screws at a maximum spacing of 30 inches o.c.

**Fastening #3:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and FTR MAGNUM Plates spaced 6" o.c. in the 5" lap of membrane in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded.

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



**Fastening #4:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and FTR MAGNUM Plates spaced 12" o.c. in the 5" lap of membrane in rows spaced 72" o.c. The outside 1.5" of the lap is heat welded.

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

**Fastening #5:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and FTR MAGNUM Plates spaced 6" o.c. in the 5" lap of membrane in rows spaced 96" o.c. The outside 1.5" of the lap is heat welded.

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

**Deck:** Minimum 2500 psi structural concrete deck or Minimum 20 gage ASTM A653 SS Grade 33 Type B Steel deck fastened to steel support at a maximum span of 6' o.c. Steel deck shall be fastened with SFS Intec Impax 5 or ITW Buildex Traxx/5 at a maximum spacing of 6" o.c. Side laps shall be fastened with SFS Intec ¼-14 Lap Tek or Traxx/1 screws at a maximum spacing of 30 inches o.c.

**Fastening #6:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and FTR MAGNUM Plates spaced 12" o.c. in the 5" lap of membrane in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded.

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

**Fastening #7:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and FTR MAGNUM Plates spaced 6" o.c. in the 5" lap of membrane in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded.

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

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



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7:** Recover, Noninsulated  
**Deck Description:** Concrete/steel/lightweight concrete  
**System Type E(9):** Membrane mechanically attached to deck.

**All General and System Limitations apply.**

**Deck:** Minimum 18-22 gage steel deck, minimum 2500 psi structural concrete  
**Lightweight Concrete:** Minimum 200 psi cellular concrete.  
**Vapor Retarders:** (Optional) Any UL or FM approved vapor retarder applied to the substrate.  
**Barrier:** (Optional) ¼" DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet, min. ¾" Toprock attached with 2 fasteners per 4' x 4' sheet or Tritex Rocroof loose laid.  
**Membrane:** FiberTite, XT, SM or XTreme secured through the lightweight concrete as specified below.  
**Fastening #1:** FTR MAGNUM Fasteners with FTR Magnum 2<sub>s</sub> Plates, or FTR Magnum Belted System or Dekfast fasteners with Dekfast Galvalume Steel Round 2-3/8" 20-Ga. Barbed Plates or Dekfast #15 fasteners and Dekfast Isofast IF-2.375-AI Membrane Plate, space 6" o.c. within the 5" over laps in rows spaced 144.0" o.c. The outside 1.5" of the lap is heat welded, or installed through integral 3-1/2" fastening tab.

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

**Fastening #2:** FTR MAGNUM Fasteners with FTR Magnum 2<sub>s</sub> Plates, or FTR Magnum Belted System or Dekfast fasteners with Dekfast Galvalume Steel Round 2-3/8" 20-Ga. Barbed Plates or Dekfast #15 fasteners and Dekfast Isofast IF-2.375-AI Membrane Plate, space 6" o.c. through the top of the roof cover in rows spaced 144.0" o.c.. Rows are sealed by either welding a 6" cover strip or prefabricated 4.5" surface tab (closed lap configuration) over the fasteners. The edge of tab or both edges of cover strip are heat welded min. 1.5".

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

**Fastening #3:** FTR MAGNUM Fasteners with FTR Magnum 2<sub>s</sub> Plates, or FTR Magnum Belted System or Dekfast fasteners with Dekfast Galvalume Steel Round 2-3/8" 20-Ga. Barbed Plates or Dekfast #15 fasteners and Dekfast Isofast IF-2.375-AI Membrane Plate, space 6" o.c. within the 5" over laps in rows spaced 72.0" o.c. The outside 1.5" of the lap is heat welded, or installed through integral 3-1/2" fastening tab.

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

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



**Membrane Type:** Single Ply, Thermoplastic

**Deck Type 7:** Recover, Non-Insulated

**Deck Description:** Concrete

**System Type E(10):** Membrane mechanically attached to deck.

**All General and System Limitations apply.**

**Vapor Retarders:** (Optional) Any UL or FM approved vapor retarder applied to the substrate

**Barrier:** (Optional) ¼" DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet or Tritex Rocroof or 3 plies of Elk VersaShield loose laid

**Membrane:** FiberTite, XT, SM, Xtreme roof cover attached to the deck following one of the fastening methods specified below:

**Fastening #1:** Fasten with FTR MAGNUM, Olympic #14 or TruFast CF Tap-Grip fasteners and FTR MAGNUM Plates 6" o.c. through 5" wide open laps with a minimum 1.5" field weld or through 3.5" fastening tabs; spaced 51" o.c.  
*Maximum Design Pressure -112.5 psf. (See General Limitation #7)*

**Fastening #2:** Fasten with FTR MAGNUM, Olympic #14 or TruFast CF Tap-Grip fasteners and FTR MAGNUM Plates 6" o.c. through roof cover in rows spaced 51" o.c. Rows are sealed by either welding a 6" cover strip or prefabricated 4.5" surface tab (closed lap configuration) over the fasteners. The edge of tab or both edges of cover strip are heat welded min. 1.5".  
*Maximum Design Pressure -112.5 psf. (See General Limitation #7)*

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



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7:** Recover, Non-insulated  
**Deck Description:** Concrete/lightweight concrete/cementitious wood fiber/wood/steel  
**System Type F(1):** Membrane adhered to existing smooth surface BUR

**All General and System Limitations apply.**

**Barrier:** None.  
**Membrane:** FiberTite FB roof cover adhered to the existing roof with approved asphalt at 20-25 lbs./sq., FTR-290 solvent adhesive at 1 gal. per 100 ft<sup>2</sup> or FTR-390 asphalt based adhesive at 1 gal. per 60 ft<sup>2</sup>  
**Maximum Design Pressure:** -45 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 7:** Recover, Non-insulated  
**Deck Description:** Minimum 300 psi Concrecel Lightweight Concrete  
**System Type F(2):** Membrane adhered to deck.

**All General and System Limitations apply.**

**Concrete Deck:** Minimum 2500 psi, structural concrete deck or plank.  
**Vapor Barrier:** Any approved asphaltic vapor barrier or existing BUR.  
**Lightweight Concrete:** Minimum 300 psi, Concrecel Lightweight Concrete applied with a minimum ¼” thick slurry coat followed by an optional minimum 1” thick Apache Holey Board and a minimum 2.25” thick top coat.  
**Treatment:** Concrecel Curing Compound applied to the deck top surface when walkable, at a rate of 600 ft<sup>2</sup>/gal.  
**Membrane:** FiberTite FB roof cover adhered to the insulation with FTR-290 solvent adhesive at 1 gal. per 75 ft<sup>2</sup> applied to substrate. Membrane rolled in with weighted roller.  
**Maximum Design Pressure:** -375.0 psf; (See General Limitation #9.)



## RECOVER SYSTEM LIMITATIONS:

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

## GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9B-72 of the Florida Administrative Code.

**END OF THIS ACCEPTANCE**



NOA No.: 05-1220.05  
Expiration Date: 01/05/11  
Approval Date: 05/04/06  
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