



**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 Concrete Decks**

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

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

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

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

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

This NOA revises NOA No. 05-0922.14 and consists of pages 1 through 41.  
The submitted documentation was reviewed by Jorge Acebo.



**NOA No.: 05-1220.08  
Expiration Date: 01/05/11  
Approval Date: 05/04/06  
Page 1 of 41**

## ROOFING SYSTEM APPROVAL

Category: Roofing  
Sub-Category: Single Ply  
Material: Thermoplastic  
Deck Type: Concrete  
Maximum Design Pressure -572.5 psf  
Fire Classification: See General Limitation #1

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

<u>Product</u>	<u>Dimensions</u>	<u>TABLE 1 Test Specification</u>	<u>Product Description</u>
FiberTite, FiberTite-XT, FiberTite-SM, FiberTite- 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 48" 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, stainless steel or aluminum
Tuff Trac	0.080" x 28" or 56" x 43' ¼" x 24" x 48"	n/a	Vinyl walk way Vinyl protection pad



**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 II, ACFoam III	Isocyanurate Insulation	Atlas Roofing Corp.
EnergyGuard PolyIso	Polyisocyanurate foam insulation	GAF Materials Corp.
EnergyGuard Composite	Polyisocyanurate foam insulation with high density fiberboard or perlite insulation.	GAF Materials Corp.
DensDeck, DensDeck Prime	Silicon treated gypsum	G-P Products
H-Shield	Polyisocyanurate Insulation	Hunter
ENRGY 2, ENERGY 3, PSI-25	Isocyanurate Insulation	Johns Manville
ENRGY 2 Composite	Polyisocyanurate foam/perlite composite insulation	Johns Manville
Type X Gypsum	Gypsum Wallboard	Generic
EPS	Extruded or Expanded Polystyrene	Generic
Multi-Max FA	Polyisocyanurate foam insulation	Rmax, Inc.
RocRoof	Rockwool fire barrier	Tritex
Securock	Gypsum Coverboard	US Gypsum

**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 Fastener	Membrane fastener	Various	Seaman Corp.
2.	FTR #14 Fastener	Membrane/Insulation 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 2s	Barbed, galvalume AZ50 stress plate	2-3/8" Dia.	Seaman Corp.
6.	FTR Magnum Belted System	Galvalume AZ50 stress plate, #15 belted fasteners	2-3/8" Dia.	Seaman Corp.
7.	Insul-Fixx Fastener	Insulation fastener for steel and wood decks	Various	SFS Intec, 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>
8.	Insul-Fixx S	Galvalume AZ55 stress plate	3" round	SFS Intec, Inc.
9.	Insul-Fixx P	Polyethylene stress plate	3" round	SFS Intec, Inc.
10.	Dekfast Galvalume Steel Round 2-3/8 in 20-Ga. Barbed Plate	Barbed, galvalume AZ50 stress plate	2-3/8" Dia.	SFS Intec, Inc.
11.	Dekfast isofast IF-2.375-AI Membrane Plate	Galvalume AZ50 stress plate, #15 belted fasteners	2-3/8" Dia.	SFS Intec, Inc.
12.	Dekfast Fasteners	Insulation and membrane fasteners	Various	SFS Intec, Inc. (Construction Fasteners)
13.	Dekfast Hex	Galvalume AZ50 steel plate	2 7/8" x 3 1/4"	SFS Intec, Inc. (Construction Fasteners)
14.	CF Tap-Grip Fasteners	Fastener for concrete decks		The Tru-Fast Corp.
15.	Tru-Fast Plates	Galvalume AZ55 steel plate	3" round	The Tru-Fast Corp.
16.	Tru-Fast Plates	Polyethylene plastic plate	3" round	The Tru-Fast Corp.

**EVIDENCE SUBMITTED:**

<u>Test Agency/Identifier</u>	<u>Name</u>	<u>Report</u>	<u>Date</u>
Factory Mutual Research Corp.	FMRC 4470	J.I. #1Z2A5.AM	01/12/96
	FMRC 4470	J.I. #1Z3A8.AM	08/13/97
	FM Letter for Approval Listing	FM Approval Guide	10/06/99
	FMRC 4470	3003251	10/05/99
	FMRC 4470	J.I. #4D5A4.AM	10/05/99
	FMRC 4470	3002471	10/06/99
	4450	3009610	10/22/01
	FM 4470	3019313	
	Underwriters Laboratories	Fire Resistance Testing	95NK17212
Fire Resistance Testing		94NK12810	8/11/98
Exterior Research & Design, LLC	TAS 114	#4015.10.96-1	10/02/96
	TAS 114	#4006.07.97-1	10/02/96
	TAS 114	#4020.08.99-1	08/30/99
	TAS 114	#4006.08.00-1	08/17/00
	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



**NOA No.: 05-1220.08**  
**Expiration Date: 01/05/11**  
**Approval Date: 05/04/06**  
**Page 4 of 41**

**APPROVED ASSEMBLIES**

- Membrane Type:** Single Ply, Thermoplastic
- Deck Type 3I:** Concrete Decks, Insulated
- Deck Description:** Min, 2500 psi structural concrete or concrete plank
- 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, AC Foam 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, AC Foam 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: Concrete deck 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 deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.**

**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 3I:** Concrete Decks, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**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>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, ENRGY-2, Expanded Polystyrene, Extruded Polystyrene 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, require over EPS) FTR-Value, ACFoam II, Multi-Max FA, ENRGY-2, Extruded or Expanded Polystyrene Minimum 1.5" thick</b>	N/A	N/A
<b>(Optional, require over EPS) DensDeck Prime Minimum 0.25" thick</b>	N/A	N/A

**Note: Concrete deck 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 deck 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>.. 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:** None.

**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., 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:** -82.5 psf (for for FTR 601, Insta-Stik or OlyBond Fastener Adhesive)  
 (See General Limitation #9)  
 -90 psf (for for Insta-Stik & FiberTite FB Application)  
 (See General Limitation #9)  
 -120 psf (for for Insta-Stik & FiberTite, XT, SM or XTreme Application)  
 (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 3I:** Concrete Decks, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**System Type A(3):** All layers of insulation adhered subsequently membrane adhered.  
**All General and System Limitations apply.**

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>DensDeck Prime Minimum 0.25" thick</b>	N/A	N/A

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

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

**Maximum Design Pressures:** -420 psf (See General Limitation #9.)



- Membrane Type:** Single Ply, Thermoplastic
- Deck Type 3I:** Concrete Decks, Insulated
- Deck Description:** Min. 2500 psi structural concrete or concrete plank
- 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>
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 deck 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, SM, XT, 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:** -87.5 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 3I:** Concrete Decks, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**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>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>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
<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 deck 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, SM, XT, 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:** -180.0 psf (See General Limitation #9)



- Membrane Type:** Single Ply, Thermoplastic
- Deck Type 3I:** Concrete Decks, Insulated
- Deck Description:** Min. 2500 psi structural concrete or concrete plank
- System Type A(6):** One or more layers of insulation adhered with approved adhesive, membrane 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>
Securock Minimum 0.25" thick	N/A	N/A

**Note: All insulation shall be adhered to the deck 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, SM, XT, 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:** -240.0 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 3I:** Concrete Decks, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**System Type A(7):** One or more layers of insulation adhered with approved adhesive, membrane 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 deck 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:** Hot asphalt-applied base and/or ply sheets or 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, SM, XT, 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 3I:** Concrete Decks, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**System Type A(8):** One or more layers of insulation adhered with approved adhesive, membrane 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>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
<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 deck 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:** 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, SM, XT, 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:** -60.0 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 3I:** Concrete Decks, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**System Type A(9):** One or more layers of insulation adhered with approved adhesive, membrane 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) AC Foam 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 deck 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, SM, XT, 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 (See General Limitation #9.)  
 (for Insta-Stik, Olybond 500, FTR 601, Weather-Tite Pourable Foam, Weather-Tite One Step or TITE-SET)  
 -555.0 psf (See General Limitation #9.)  
 (for Olybond Adhesive or approved hot asphalt)



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

**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) 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 deck in 1/2" to 3/4" 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:** (Optional) Any UL or FM approved vapor retarder may be installed over the deck 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:** -232.5 psf (with no vapor retarder) (See General Limitation #9)  
 -157.5 psf (with vapor retarder) (See General Limitation #9)



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

**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>Dow Styrofoam, Foamular 250</b> Minimum 1" thick (Maximum 4'x4')	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>DensDeck, DensDeck Prime</b> Minimum 0.25" thick	N/A	N/A

**Note: All insulation shall be adhered to the deck 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:** 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:** -202.5 psf (See General Limitation #9)



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

<b>Base Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ASTM C578 Type IX expanded polystyrene (min. 1.8 pcf) or Type IV extruded polystyrene (min. 1.6 pcf)</b> Minimum 1.0" thick (Maximum 4'x4')	N/A	N/A
<b>Top Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>DensDeck, DensDeck Prime</b> Minimum 0.25" thick	N/A	N/A

**Note: All insulation shall be adhered to the deck in ½" to ¾" wide beads 12" o.c. of FTR 601 or Weatherite 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:** 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:** -202.5 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 3I:** Concrete, Insulated, New, Recover  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**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:

<b>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> Minimum 1.5" thick	N/A	N/A
<b>DensDeck, DensDeck Prime</b> Minimum 0.5" thick	N/A	N/A

**Note:** All insulation shall be adhered to the deck 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 deck.

**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)



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

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>ACFoam II, ACFoam III, FTR-Value</b> Minimum 1.5" thick	N/A	N/A

**Note: All insulation shall be adhered to the deck 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:** 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)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 3I:** Concrete, Insulated, New, Recover  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**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:

<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 deck 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 deck.

**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 3I:** Concrete Decks, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**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>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>		
Minimum: 1.5" thick	N/A	N/A

**Note:** All insulation shall be adhered to the deck 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, 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 ft<sup>2</sup>.

*(Meets -67.5 psf)*

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



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 3I:** Concrete Decks, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**System Type A(17):** One or more layers of insulation adhered with approved adhesive, membrane 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><u>Insulation Top Layer:</u></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 deck 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, 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., FTR-290 adhesive at 1 gal/sq. or with FTR-390 adhesive at 1 gal. per 60 ft2.

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



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 3I:** Concrete Decks, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**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>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> Tapered	N/A	N/A

**Note: All insulation shall be adhered to the deck 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, 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)



NOA No.: 05-1220.08  
 Expiration Date: 01/05/11  
 Approval Date: 05/04/06  
 Page 22 of 41

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

**All General and System Limitations apply.**

One or more layers of the following insulations:

<u>Insulation Base Layer</u> <u>(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 extruded or expanded polystyrene (min. 2.0 pcf)</b> Minimum: 1.5" thick	N/A	N/A
<b><u>Insulation Top Layer:</u></b> <b>DensDeck Prime, Securock</b> Minimum: ¼ " thick	N/A	N/A

**Note: All insulation shall be adhered to the deck 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, 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., 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 3I:** Concrete Decks, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**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>(Optional):</u>	<u>Fastener Density</u>	<u>Fastener Type</u>
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) 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 deck 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, 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. 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:** -169 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 3I:** Concrete Decks, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**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</u> <u>(Optional):</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>DensDeck Prime, Securock</b> Minimum: 0.25 " thick	N/A	N/A

**Note: All insulation shall be adhered to the deck 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, 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., 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:** -67.5 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 3I:** Concrete Decks, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**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 (Optional):</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
<b><u>Insulation Top Layer:</u></b> DensDeck Prime, Securock Minimum: 0.25 " thick	N/A	N/A

**Note: All insulation shall be adhered to the deck 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, 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., 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:** -180 psf (See General Limitation #9)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 3I:** Concrete Decks, 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:

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

**Note: Concrete deck 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 deck 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.

**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 3I:** Concrete Decks, Insulated
- Deck Description:** Min. 2500 psi structural concrete or concrete plank
- System Type B:** 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>FTR-Value, ACFoam II, Multi-Max FA, H-Shield, ENRGY-2, ENRGY-3</b>		
Minimum 1.5" thick	2	1:2 ft <sup>2</sup>
Minimum 2" thick	2	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 (Optional, require over EPS)</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
<b>FTR-Value, ACFoam II, Multi-Max FA, ENRGY-2</b>		
Minimum 1.5" 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 20-40 lbs/100 ft<sup>2</sup> or 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>. 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 Retarder:** (Optional) Any UL or FM approved vapor retarder may be installed over the deck or the base layer of insulation.

**Barrier:** (Optional) ¼" DensDeck, DensDeck Prime or Type X 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>.

**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:**

-45 psf (See General Limitation #9.)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 3I:** Concrete Decks, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**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>FTR-Value, ACFoam II</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, 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 3I:** Concrete Decks, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**System Type C:** All layers of insulation simultaneously attached; 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</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, ACFoam II, Multi-Max FA, H-Shield, ENRGY-2, ENRGY-3</b>		
Minimum 1.5" thick	2	1:2 ft <sup>2</sup>
Minimum 2" thick	2	1:4 ft <sup>2</sup>
<b>DensDeck Prime</b>		
Minimum ½" thick	2	1:1.7 ft <sup>2</sup>
Minimum ¼" thick	2	1:1.3 ft <sup>2</sup>

**Note: All layers shall be simultaneously fastened; see top or base layer 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.**

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

**Barrier:** (Optional) See Top Insulation Layer, above.

**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**

**Pressures:** -45 psf (See General Limitation #7.)



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 2I:** Concrete, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**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 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, 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:** *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 3I:** Concrete Decks, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**System Type D(1):** 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, AC Foam, Multi-Max, H-Shield, ENRGY-2, ENRGY-3</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 roof deck 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, FB, or LX 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, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and FTR 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 FTR MAGNUM Plates 12" o.c. through tabs spaced 51" o.c.  
*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 3I:** Concrete Decks, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**System Type D(2):** Membrane mechanically attached over preliminary fastened insulation.

**All General and System Limitations apply.**

<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 roof deck or over a base layer of insulation.

**Barrier:** (Optional) 1/4" 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 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.

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

Or

FiberTite TopSider system consisting of 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 top of the membrane at intervals of 51".

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

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



**Membrane Type:** Single Ply, Thermoplastic  
**Deck Type 2I:** Steel, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank.  
**System Type D(3):** Membrane mechanically attached over preliminary fastened insulation.  
**All General and System Limitations apply.**

<b>Insulation Layer</b>	<b>Insulation Fasteners (Table 3)</b>	<b>Fastener Density/ft<sup>2</sup></b>
-------------------------	---	--

**(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 roof deck 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, 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, 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))*



**Fastening #4:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 Fasteners with 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 #5:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 Fasteners with 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)*

**Fastening #6:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 Fasteners with 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 #7:** FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 Fasteners with 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 3I:** Concrete Decks, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**System Type D(4):** 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, AC Foam II, AC Foam 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 roof deck 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 3:** Concrete Decks, Non-Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**System Type E(1):** Membrane mechanically attached to deck.

**All General and System Limitations apply.**

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

**Barrier:** (Optional) ¼" DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet.

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

**Fastening #1:** Fasten with FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and MAGNUM Plates spaced 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 spaced 12" o.c. through tabs spaced 51" o.c.  
**Maximum Design Pressure -60 psf. (See General Limitation #7)**

**Fastening #3:** Fasten with FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 fasteners and MAGNUM Plates spaced 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)**

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



- Membrane Type:** Single Ply, Thermoplastic
- Deck Type 3:** Concrete Decks, Non-Insulated
- Deck Description:** Min. 2500 psi structural concrete or concrete plank
- System Type E(2):** Membrane mechanically attached to deck.

**All General and System Limitations apply.**

- Vapor Retarders: (Optional) Any UL or FM approved vapor retarder applied to the roof deck.
- 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 with 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 with 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)*
- Fastening #3: FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 Fasteners with 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 #4: FTR MAGNUM, FTR Spike, Tap-Grip, Olympic CD-10 Fasteners with 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 3I:** Concrete Decks, Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**System Type E(3):** Membrane mechanically attached to deck.

**All General and System Limitations apply.**

**Vapor Retarders:** (Optional) Any UL or FM approved vapor retarder applied to the roof deck 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 3:** Concrete Decks, Non-Insulated  
**Deck Description:** Min. 2500 psi structural concrete or concrete plank  
**System Type F:** Membrane adhered to roof deck.

**All General and System Limitations apply.**

**Membrane:** FiberTite FB roof cover adhered to the primed concrete deck with approved asphalt at 20-25 lbs./sq.  
*(Meets –572.5 psf for hot asphalt. See General Limitation #9)*  
Or  
FTR 390 asphalt based adhesive at 1 gal per 60ft<sup>2</sup>.  
*(Meets –237.5 for FTR 390 application. See General Limitation #9)*  
Or  
FiberTite-FB roof cover adhered to concrete deck sealed with polyvinyl alcohol (PVA) with FTR 290 Adhesive.  
*(Meets –377 psf for FTR 290 application. See General Limitation #9)*

**Maximum Design Pressure:** See Applications Options above.



NOA No.: 05-1220.08  
Expiration Date: 01/05/11  
Approval Date: 05/04/06  
Page 40 of 41

## CONCRETE DECK SYSTEM LIMITATIONS:

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

## GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each 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.: 05-1220.08  
Expiration Date: 01/05/11  
Approval Date: 05/04/06  
Page 41 of 41