



*Guide Specification  
For Installation Of Fleece Backed*



**FTR-FB 02**





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## *Seaman Corporation Guide Specification for Installation of FiberTite®-FB Fleece Backed Roofing Systems*

### PART 1 - GENERAL

#### 1.01 DESCRIPTION

##### *A. Scope*

Furnish and install membrane roofing, by adhering a FiberTite-FB, E.I.P. Roofing System as manufactured and supplied by:

Seaman Corporation  
1000 Venture Blvd., Wooster, Ohio 44691  
Telephone: 1-800-927-8578  
Fax: 1-800-649-2737

##### *B. Special Conditions*

1. This specification is to be applied, without variation, to only those building roofs having deck structures capable of supporting the guidelines set forth herein.
2. All applications require review by the *FiberTite Technical Customer Services (FTCS)* before any modification of this specification is valid.
3. Seaman Corporation Warranty Request Form (*FTR-WRF*), must be completed, signed by appropriate parties, submitted to and approved by *FTCS* before any consideration for warranty and/or the release of any materials can be authorized.

##### *C. Special Design Considerations*

1. An engineering study, indicating that the structure is unable to accommodate additional live and/or dead loads.
2. Mechanical fastener withdrawal resistance tests must be conducted as a means of determining the deck acceptability for proper mechanical attachment of roof insulation, base sheet and/or FiberTite-FB Membrane when necessary.
3. Moisture conditions in existing roof(s) which would prohibit a successful recover.
4. Roof areas subject to heavy or excessive mechanical traffic.
5. Ponding and/or water retention must be considered when calculating the dead and live loads for the structure.

##### *D. Environmental Considerations*

1. Severe environmental exposure, e.g. coastal or high wind area(s), which may require enhanced mechanical attachment.
2. Chemical discharge not listed on the Seaman/FiberTite chemical resistance publication.
3. Do not apply adhesives in conditions such as fog, dew, rain or snow, or when frost occurs on the surfaces of the membrane or substrate.
4. Do not use FTR-390 emulsion or FTR-490 polymeric (water based) adhesives if the ambient air temperature is expected to drop below 32°F (0°C) within 24 hours of application.
5. Compliance with EPA and OSHA requirements as published by local, state and Federal authorities.

#### 1.02 QUALITY ASSURANCE

- A.* FiberTite-FB Roofing System shall be installed only by a roofing contractor, authorized by Seaman Corporation (herein after referred to as Seaman) prior to bid and/or contract award.
- B.* Roofing contractor's key personnel shall have been trained by Seaman.
- C.* FiberTite-FB Roofing System shall be installed in accordance with current specifications and details as amended and/or authorized by *FTCS*.
- D.* There shall be no deviations from approved contract specifications or shop drawings without prior written approval by the owner/owner's representative and *FTCS*.
- E.* Unauthorized deviations may subject the roof system to warranty ineligibility.
- F.* Upon completion and certification by the contractor that a quality installation has been completed in accordance with the contract specifications, a quality assurance inspection of the roof system shall be performed by *FTCS* for acceptance and approval of appropriate warranty.

#### 1.03 SUBMITTALS

- A.* The following information shall be submitted to *FTCS* for review before warranty consideration or acceptance can be confirmed.
  1. Complete copy of project architectural specifications or authorized applicator's proposal outlining design parameters.



2. Complete list of accessories or materials not manufactured or expressly authorized for use in FiberTite literature.
3. Dimensioned outline of the roof indicating all FTR-Detail references.
4. Dimensioned shop drawings illustrating non-FiberTite details. Details that do not conform with standard FiberTite details shall be returned with appropriate recommendations.

**B.** At the time of contract award, the authorized roofing contractor shall submit to the owner/owner's representative the following:

1. Most recent published technical literature and specifications issued by *FTCS*.
2. Sample warranty and letter from Seaman, authorizing the roofing contractor.
3. Roofing Contractor's approved copy of submittal form FTR-WRF.
4. Dimensioned shop drawings, including roof plan detailing perimeter enhancement, flashing methods, terminations and acceptance by *FTCS*.
5. Written approval by the insulation manufacturer for the use and suitability of their product(s) in the proposed system.
6. Written approval from *FTCS* confirming any accessories submitted, not manufactured or expressly approved in FiberTite literature are acceptable and compatible with the proposed FiberTite-FB Roofing System.
7. Material Safety Data Sheets (MSDS) relating to all products, chemicals and solvents.
8. Certification that the system specified complies with all identifiable building code and insurance requirements.

#### 1.04 DELIVERY & STORAGE

- A.** Deliver all materials to the job site in manufacturer's original, unopened containers with legible labels and in sufficient quantity to allow for continuity of work.
- B.** Select and operate material handling equipment in a safe manner, guarding against damage to existing construction or newly applied roofing and conforming to manufacturer's recommendations of handling and storage.
- C.** All rolls of membrane shall be stored, lying down, elevated above the roof deck and completely protected from moisture with tarpaulins. (The polyethylene wrappers on the rolls do not provide adequate moisture protection during roof-top storage.)

**D.** Insulation shall be stored on pallets, fully protected from moisture with tarpaulins. (Manufacturer's packaging is not considered adequate protection from moisture.)

**E.** Adhesives shall be safely stored, at temperatures above 40°F.

**F.** Flammable materials shall be stored in a cool, dry area away from sparks and open flames. Follow all precautions as outlined in manufacturer's Material Safety Data Sheets.

**G.** Materials, having been determined by the owner/owner's representative to be damaged, shall be immediately removed from the construction site and replaced at no cost to the owner.

#### 1.05 JOB CONDITIONS

##### **A. Safety**

1. Take all necessary precautions regarding worker health and safety when using solvents and adhesives.
2. Store flammable liquid and materials away from open sparks, flames and extreme heat.
3. Take necessary precautions when using solvents and adhesives near fresh air intakes.
4. Comply with all OSHA requirements for construction.
5. Daily site cleanup shall be performed to minimize debris and hazardous congestion.

##### **B. Protection**

1. Schedule installation sequence to limit access and utilization of the newly installed membrane for material storage, construction staging, mechanical and/or excessive foot traffic.
2. Provide proper protection on newly completed roofing.
3. Protect building walls, rooftop units, windows and other components during installation.

##### **C. Additional Precautions**

1. Daily production schedules of new roofing shall be limited to only that which can be made 100% watertight at the end of the day, including all flashing and night seals.
2. All surfaces to receive new roof system, including insulation and flashing, shall be free from all dirt debris and be thoroughly dry.



3. Adverse weather conditions e.g. extreme temperature, high humidity, high winds and moisture, may affect adhesive application and the over all quality of the installation. Contact *FTCS* for acceptable tolerances.
4. Comply with local EPA requirements as published by Local, State and Federal authorities.
5. All construction debris shall be removed from the construction site and legally disposed of off site.

### 1.06 COORDINATION

- A. Prior to installation of materials, a pre-roofing conference will be held with the authorized roofing contractor, Seaman representative and owner/owner's representative(s) to discuss the specified roofing system, its proper application and the expectations of all parties involved. The authorized roofing contractor and the owner/owner's representative shall notify all parties a minimum of fourteen days prior to the meeting.
- B. Plan and coordinate the installation of the new roofing system with other trades in such a manner to avoid membrane damage, keeping the complete installation weather-tight and in accordance with all approved details and warranty requirements.
- C. FiberTite Technical Customer Services shall be available to make recommendations necessary to insure compliance with project specifications and shall be responsible for recommending any specification alternatives due to unforeseen job conditions.

### 1.07 WARRANTY

#### A. *Inspections*

A FiberTite Technical Customer Service Representative shall inspect the completed FiberTite-FB Roofing System, and upon acceptance, Seaman shall issue the specified warranty, subject to the terms and conditions of the sample warranty and contract documents.

#### B. *Available Warranties*

Seaman Corporation offers the following FiberTite-FB Roofing System warranties:

1. *Material Warranty* provides the building owner protection against the cost of repairing defects in the membrane only. This warranty is offered at no cost to the owner.

2. *Standard Warranty* provides the building owner protection against the cost of repairing leaks as a direct result of either defects in the membrane or the workmanship involved in its installation for a period of ten (10) years. There is a nominal premium.

3. *Extended Warranty* provides the building owner protection against the cost of repairing leaks as a direct result of either defects in the membrane or the workmanship involved in its installation beyond the ten years offered in 1.07 B2. There is an additional premium.

#### C. *Maintenance*

Along with the issuance of the warranty, a set of instructions shall be included detailing preventative maintenance and noting a list of harmful substances which may damage the roofing membrane.

## 2.00 PRODUCTS

### 2.01 GENERAL

- A. All products and components for the adhered FiberTite-FB Roofing System shall be supplied by Seaman.
- B. Components other than those manufactured and/or supplied by Seaman shall be submitted for review, prior to ordering. Any product(s) not specifically authorized in writing for the project by Seaman shall be considered unacceptable and their performance excluded from the warranty.

### 2.02 MEMBRANE

#### A. *Approved Membrane*

Roof membrane shall FiberTite-FB, an ethylene interpolymer (EIP) alloy, reinforced with knitted polyester fabric, and a heat bonded 6 oz. polyester backing, as manufactured by Seaman Corporation, conforming to the physical properties as outlined in Table 1 of this specification.

#### B. *Flashing Membrane*

Nominal 0.036 inch FiberTite or 0.045 inch FiberTite-XT Membrane(s) shall be used for all flashing requirements. Specifications and physical properties for FiberTite Single-Ply Membrane can be found in Seaman Corporation Guide Specifications FTR MA-98 and FTR FA-98.

C. FiberTite-FB membrane may be adhered directly to pre-approved insulation, base sheet and other acceptable substrates. Contact FTCS for additional information regarding compatible substrates with sufficient adhesion properties.

**D. Acceptable Substrate(s)**

1. Authorized insulation, mechanically attached or adhered in approved adhesive.

2. Insulated Structural Concrete.
3. Insulated Steel Decking.
4. Exterior grade plywood; insulated or with approved barrier board or base sheet.
5. Cementitious wood fiber or gypsum, insulated or with approved base.
6. Cellular, lightweight insulating concrete, with or without approved base sheet.
7. Pre-approved, existing smooth surface BUR.

Table 1: Physical Properties of FiberTite-FB Membrane

<u>MATERIAL PROPERTY</u>	<u>TEST METHOD(S)</u>	<u>SPECIFICATION</u>
Thickness	ASTM D 751 (inches)	.040 nominal
Tensile Strength	ASTM D 751 (lbs)	375 x 350
	ASTM D 882 (psi)	8500
Elongation	ASTM D 751 (%)	15 warp x 15 fill
Breaking Strength	ASTM D 751 (lbs) Grab Method	300
Tear Strength	ASTM D 751 (lbs) 8"x10" Sample	50
Puncture Resistance	Fed. Std. 101B / Method 2031 (lbs)	250
Static Puncture	ASTM D 5602	Pass
Water Vapor Transmission	ASTM E 96 Proc. A (gm/m <sup>2</sup> /24hrs)	1.3
Water Absorption	ASTM D 471; one side (%)	5.0
Dimensional Stability	ASTM D 1204 (%)	0.5
Low Temperature Flexibility	ASTM D 2136 (F)	-30
Factory Seam Strength	ASTM D 751 Grab Method	85% of Fabric Strength
Shore "A" Hardness	ASTM D 2240	80
Accelerated Weathering	5,000 hrs. Carbon Arc w/ Water Spray	No cracking, blistering, crazing
Hydrostatic Resistance	ASTM D-751 Method A Proc. 1 (psi)	500
Flame Resistance	Mil-C-20696C Type II; Class 2	Pass
Oil Resistance	Mil-20696C	No swelling, cracking or leaking
Hydrocarbon Resistance	Mil-C-20696C	No swelling, cracking or leaking

**2.03 RELATED MATERIALS "BY SEAMAN"**

The following product(s)/material(s) shall be supplied by Seaman Corporation.

**A. FTR Adhesives**

Adhesives supplied by Seaman Corporation have been specially formulated for FiberTite Roofing Systems. Application technique and coverage rates will vary according to substrate and environmental conditions. See Table 2 for average coverage rates on common substrates. For information regarding additional/approved substrates and coverage, contact *FTCS*.

**1. FTR-190 Bonding Adhesive**

A solvent based, contact type, (two sided) bonding adhesive, designed for bonding FiberTite membrane to clean and dry, pre-approved horizontal or vertical substrates.

**2. FTR-290 Adhesive**

A solvent based adhesive, VOC compliant, one sided application (substrate only), designed for bonding FiberTite-FB membrane to clean and dry, pre-approved horizontal substrates.

**3. FTR-390 Adhesive**

A rubberized/asphalt water based emulsion adhesive, one side application (substrate only), designed for bonding FiberTite-FB membrane to clean and dry, pre-approved horizontal substrates.

**4. FTR-490 Adhesive**

A polymeric waterborne, VOC compliant bonding adhesive, one side application (substrate only), designed for bonding FiberTite-FB (fleece back) membrane to clean and dry, pre-approved horizontal substrates. (See *FTR-FB 02* for more information on FiberTite-FB Roofing Systems.)



**B. FTR #201 Mastic**

A trowel grade elastomeric sealant, one side application (substrate only) designed to adhere FiberTite membrane to clean and dry, pre-approved vertical surfaces.

*Table 2 : FTR Adhesive rates for common substrates.*

<u>Membrane</u>	<u>Adhesive</u>	<u>Substrate</u>	<u>Rate</u>
FiberTite	FTR-190	FiberTite	1.0 gal/100 ft2
FiberTite	FTR-190	Glass facer	1.2 gal/100 ft2
FiberTite	FTR-190	Base sheet	1.0 gal/100 ft2
FiberTite	FTR-190	Masonry	1.2 gal/100 ft2
FiberTite	FTR-190	Wood	1.0 gal/100 ft2
FiberTite	FTR-201	Masonry	4.0 gal/100 ft2
FiberTite	FTR-201	Wood	3.3 gal/100 ft2
FiberTite-FB	FTR-290	Glass facer	1.2 gal/100 ft2
FiberTite-FB	FTR-290	Base sheet	1.0 gal/100 ft2
FiberTite-FB	FTR-290	Cellular lt.wt.	1.2 gal/100 ft2
FiberTite-FB	FTR-390	Glass facer	1.7 gal/100 ft2
FiberTite-FB	FTR-390	Base sheet	1.5 gal/100 ft2
FiberTite-FB	FTR-390	Cellular lt.wt.	1.5 gal/100 ft2
FiberTite-FB	FTR-390	Smooth BUR	1.5 gal/100 ft2
FiberTite-FB	FTR-490	Glass Facer	1.0 gal/100 ft2
FiberTite-FB	FTR-490	Cellular lt.wt	1.0 gal/100 ft2

**C. FTR #101 Sealant**

A one-component gun-grade polyurethane sealant to seal flashing termination.

**D. FTR-SL1 Sealant**

A one component pourable, self leveling, polyurethane sealant to fill "pitch pans."

**E. Fiber Clad Metal**

To fabricate metal flashing, 4' x 10' sheets of 24 gauge hot dipped G-90 steel, laminated with a 0.020 mil polymeric coating.

**F. FTR-Pre-Molded Flashing(s)**

Injection molded vent stack and inside/outside corner flashing using FiberTite EIP compound.

**G. FTR Non-Reinforced Membrane**

Field fabrication membrane, 0.060 mil non-reinforced EIP membrane.

**H. FTR-TuffTrack Walkway & Protection Pads**

High grade walkway/protection material with "slip resistant" design. See FTR-DM1 for attachment guidelines.

**I. FTR P3B Slip Sheet**

A 3 oz., non-woven polypropylene mat to be used for membrane divorcement (slip sheet) over reasonably smooth new or existing structural substrates.

**J. FTR Recovery Board**

A 3/8 inch thick recovery board/underlayment consisting of an extruded polystyrene core with integral plastic facer on both sides Cut-fold design. See FTR-D14 for attachment guidelines.

**K. FTR-Fasteners**

**1. FiberTite MAGNUM Series**

To secure FiberTite to steel, wood and structural concrete decks. A #15-13, buttress threaded, #3 Phillips head fastener constructed of case hardened carbon steel with a reduced diameter drill point and Senti XP corrosion resistant coating.

**2. FiberTite HD Series**

To secure insulation to steel, wood and structural concrete decks. Heavy duty threaded steel, #3 Phillips truss, self tapping corrosion resistant fastener.

**3. FiberTite CD-10 Spike**

To secure insulation and membrane(s) to structural concrete decks. Hard carbon steel, hammer-in, non-threaded fastener.

**4. FiberTite NTB-1H**

To secure insulation, base sheet and/or membrane to gypsum and cementitious fiber decks. Threaded, glass-filled nylon fastener, with locking wire barbs.

**5. FiberTite Peel Rivets**

To secure insulation, base sheet and/or membrane to steel, wood, cement fiber, tectum, fiberglass and lightweight plank decks. Threadless, high magnesium aluminum alloy fastener.

**6. FiberTite BS Fasteners**

Coated fastener and stress plate to secure base sheet to gypsum and cellular lightweight insulating concrete decks.





**L. FTR-MAGNUM Series Barbed Stress Plates**

Used to anchor membrane, are 2.5 in. x 1.5 inch rectangular in dimension with 0.75 in. radial corners, manufactured from 18 gauge AZ-50 galvalume steel with a 0.250 inch diameter hole in its center. The plate has a raised reinforcement area and eight "barbs."

**M. FTR-Insulation Stress Plates**

Used to secure insulation to steel, wood and structural concrete decking. Manufactured from high density polyethylene, 3 inch in diameter, designed with a self locking mechanism to secure the head of the FTR fasteners into the plate.

**N. FTR-Termination Bar**

Membrane flashing(s) restraint/termination seals, nominal 1/8" x 1" x 10' 6060-T5 extruded aluminum bar with pre-punched slots, 8" o/c.

**O. FiberTite Metal Fascia System**

Two piece "snap-on" pre-formed, aluminum metal edge system.

**P. FTR-Value Insulation**

Polyisocyanurate and extruded polystyrene flat or tapered insulation.

**Q. FTR-301**

Urethane-Asphalt insulation adhesive that is ribbon applied.

**R. FTR-401**

Urethane insulation adhesive that is ribbon applied.

**2.04 RELATED MATERIALS**

**A. Wood Nailers**

1. Wood shall be No. 2 or better southern yellow pine, kiln dried, wolmanized, conforming to Federal specification TT-550, TT-W-517 and American Wood Preservers Institute Standard LP-2. Creosote or asphaltic type preservatives are not acceptable.
2. Wood nailers shall not exceed a maximum moisture content of 19% by weight on a dry weight basis.

**B. Vapor Retarder**

1. The decision regarding the inclusion of a vapor retarder within the adhered roof system shall fall within the responsibility of the design professional. Consult N.R.C.A. bulletins for appropriate guidelines.

2. Vapor retarders for use in a adhered roof system shall comply with identifiable code and/or insurance requirements.
3. The vapor retarder manufacturer shall certify, in writing, that the specified vapor retarder meets identifiable code requirements and is approved for its intended use.

**C. Insulation**

1. Insulation or cover board shall be installed, where specified and/or required, to provide a suitable surface for adhering the FiberTite-FB Roofing System and/or meet desired thermal values.
2. Insulation manufacturer shall certify, in writing, that the insulation meets all identifiable code requirements, is compatible with the proposed FTR-Adhesive(s) and is approved for its intended use.
3. Acceptable products must be pre-approved or approved in writing by Seaman and comply with the following minimal characteristics and classification(s).
  - a. FM approved rigid insulation meeting Class 1-90, for fire and wind
  - b. UL Classification: Class A
  - c. Density: 2.0 pcf. minimum
  - d. Meet requirements of Federal Specification HH-I-1972/2
4. Pre-Approved Products
  - a. FTR-Value
5. If requested, insulation manufacturer shall provide to the building owner, a written statement, with a copy to Seaman, that specifically expresses warranty conditions for the successful installation and performance of their insulation.

**D. Adhesive(s) for Insulation Attachment**

**1. General**

- a. Adhesive manufacturer shall certify, in writing, that the specified adhesive meets identifiable code requirements, is compatible with the insulation and vapor retarder (if applicable) and is approved for its intended use.
- b. Adhesive shall be listed and approved by Factory Mutual Research in conjunction with the specified insulation and specific substrate.



- c.* Adhesive shall exceed FM requirements for 1-90 uplift for individual substrate and insulation combinations.
- d.* Adhesive manufacturer shall provide written specifications regarding the safe handling, storage and surface preparation for a quality application of the product.
- e.* Adhesive manufacturer shall provide applicable adhesion warranty to Seaman for the performance of their product.
- f.* All adhesives shall be pre-approved by Seaman.

**2. Hot Asphalt**

- a.* Asphalt shall be Type III steep asphalt, ASTM D-312.
- b.* Insulation manufacturer shall certify, in writing, that the specified insulation meets identifiable code requirements when installed with hot asphalt, is compatible with and approved for installation in hot asphalt.
- c.* All projects utilizing hot asphalt for insulation securement require written authorization, prior to the bidding process, by Seaman Corporation.

**3. Polyurethane**

- a.* Adhesive shall be either a dual or single component polyurethane adhesive, dispensed from a portable pressurized container or traditional foam equipment.
- b.* Pre-Approved Products
  - 1. Insta-Stik; Flexible Foam Products
  - 2. ER Low Rise Adhesive; ERSystems
  - 3. OlyBond; Olympic Manufacturing Group

**4. Urethane and Urethane-Asphalt**

- a.* Adhesive shall be single component, non-solvent, elastomeric, urethane or urethane-asphalt adhesive respectively, specifically designed for bonding roof insulation to structural roof decks, base sheets, other insulation boards or smooth surfaced BUR.
- b.* Pre-Approved Products
  - 1. FTR-401
  - 1. FTR-301

**E. Base Sheets**

- 1. Pre-approved base sheet shall be installed, where specified and/or required, to provide a suitable surface for adhering the insulation and/or FiberTite-FB Roofing System.
- 2. Acceptable products must be pre-approved or approved in writing by Seaman and comply with the following minimal characteristics and classification(s).
  - a.* FM approved, Class 1-90, wind uplift
  - b.* ASTM D 4601 Type II Asphalt Coated Glass-Fiber Base Sheet
  - c.* ASTM D 4897 Type II Asphalt Coated Glass-Fiber Venting Base Sheet
  - d.* Foil/Kraft Laminate w/min. tensile of 54 lb./1" according to ASTM D 828
- 3. Pre-Approved Products
  - a.* GAF; GAFGLAS #80 Premium
  - b.* GAF; GAFGLAS Stratavent

**3.00 EXECUTION**

**3.01 GENERAL**

- A.* The authorized roofing contractor shall be responsible for providing a suitable substrate for the proper installation of the FiberTite-FB membrane and specified components.
- B.* Application of Seaman/FiberTite materials constitutes an agreement that the authorized roofing contractor has inspected and found the substrate suitable for the installation of the FiberTite-FB Roofing System.
- C.* The authorized roofing contractor shall be responsible for coordinating the installation to insure that the system remains watertight during and at the end of each working day.

**3.02 SUBSTRATE PREPARATION (General)**

- A.* The roofing contractor shall be responsible for verifying that the deck condition and/or existing roof construction is suitable for the specified installation of the FiberTite-FB adhered roofing system.
- B.* Seaman requires fastener withdrawal values (pull out tests) to verify the deck condition for adhered roof systems utilizing mechanically attached insulation and/or base sheets.
- C.* Examine surfaces for inadequate anchorage, low areas that will not drain properly, foreign material, ice, wet insulation, unevenness or any other defect which would prevent the proper execution and quality application of the FiberTite-FB Roofing System as specified.



D. Prepared substrate shall be smooth, dry, free of debris and/or any other irregularities which would interfere with the installation of the adhered FiberTite-FB roofing system.

E. Do not proceed with any part of the application until all defects and preparation work have been corrected and complete.

### 3.03 SUBSTRATE PREPARATION (*New Construction*)

#### A. *Steel Deck*

1. Steel decking should conform to Factory Mutual (FM) guidelines for Class-1 insulated steel deck construction.
2. Steel decking should be constructed of a minimum 22 gauge cold rolled steel sheets with factory G-90 galvanized coating.
3. Panel profiles (ribs) shall be formed to minimize deflection and provide suitable strength and integrity to support anticipated structural live and dead loads.
4. Steel decking shall be installed in compliance with specified design criteria and local building code requirements.
5. Fastener withdrawal tests shall be performed on all "Non-FM Approved" steel decking, (decking less than 22 gauge) to determine suitability for and appropriate fastener patterns and densities for mechanical attachment of insulation and/or base sheet.

#### B. *Structural Concrete (Poured and/or Pre-cast)*

1. Decking shall be installed in strict conformance with industry standards, practices and/or pre-cast panel manufacturer's installation requirements.
2. Decking should be installed to provide positive slope and subsequent positive drainage of the new adhered FiberTite-FB Roofing System.
3. Finished decking shall be properly cured and dry, prior to the installation of approved insulation.
4. Finished surface(s) to receive new roof system shall be smooth and level without significant surface depressions or irregularities. Camber differentials greater than 3/16 inch must be leveled using a cementitious grout.
5. Finished surfaces shall be free of moisture, dust, loose debris and any other irregularity that may hinder the proper performance of the new adhered FiberTite-FB Roofing System.

#### C. *Wood*

1. Wood decking should conform to Factory Mutual (FM) guidelines for Class-1 impregnated wood decking.
2. Wood decking should be constructed of a minimum 2 inch thick wood plank or minimum 3/4 inch plywood.
3. Wood decking shall be sound, well seasoned or kiln dried and of proper thickness to accommodate design loads (including wind up-lift) according to specified design criteria and/or local building code requirements.
4. Wood decking should be installed to provide positive slope and subsequent positive drainage of the new adhered FiberTite-FB Roofing System.
5. Fastener withdrawal tests shall be performed on all "Non-FM Approved" wood decking (wood plank less than 2 inches thick or plywood less than 3/4 inch thick) to determine suitability for and appropriate fastener patterns and densities for mechanical attachment of insulation, cover board and/or base sheet.

#### D. *Cementitious Fiber*

1. Molded panels shall be installed in strict accordance with the manufacturer's installation requirements.
2. Decking should be installed to provide positive slope and subsequent positive drainage of the new adhered FiberTite-FB Roofing System.
3. Vertical alignment between adjacent panels shall provide a uniform substrate. Alignment differences shall be no greater than 1/8 inch and shall be leveled with cementitious grout.
4. Fastener withdrawal tests shall be performed on all cement fiber decking to determine suitability for and appropriate fastener patterns and densities for mechanical attachment of insulation and/or cover board.

#### E. *Poured Gypsum Concrete*

1. Gypsum decks shall be installed in strict accordance with standard industry practice, the manufacturer's installation requirements and local building code requirements.
2. Decking should be installed to provide positive slope and subsequent positive drainage of the new adhered FiberTite-FB Roofing System.
3. The gypsum fill shall be reinforced with wire mesh at a proper depth within the fill.



4. Finished decking shall maintain a minimum thickness (not including the form board) of 2 inches.
5. Fastener withdrawal tests shall be performed on all gypsum decking to determine suitability for and appropriate fastener patterns and densities for mechanical attachment of insulation, cover board and/or base sheet.
6. Finished surfaces shall be free of exposed reinforcing mesh, moisture, dust, loose debris and any other irregularity that may hinder the proper performance of the new adhered FiberTite-FB Roofing System.

**F. Lightweight "Cellular" Insulating Concrete**

1. Lightweight "Cellular" insulating concrete, herein after referred to as "lightweight concrete," shall be installed by trained applicators, approved in writing by the Lightweight Manufacturer.
2. Lightweight concrete shall be installed in strict accordance the manufacturer's installation requirements and standard industry practices.
3. The finished lightweight concrete installation shall exhibit an oven dry density of a nominal 30 pounds per cubic foot and a minimum compressive strength greater than 200 psi.
4. The lightweight concrete should be installed to provide positive slope and subsequent positive drainage of the new adhered FiberTite-FB Roofing System.
5. Finished lightweight concrete shall be a minimum thickness of 2 inches, properly cured and dry, prior to the installation of the FiberTite-FB Roof System.
6. Finished surface(s) shall be treated per manufacturer's recommendations to insure uniform curing and surface hardness.
7. Finished surface(s) shall be free of depressions, moisture, dust, loose debris and any other irregularity that may hinder the proper installation and performance of the new adhered FiberTite-FB Roofing System.
8. For FiberTite-FB Roofing Systems installed over mechanically fastened base sheet(s), the deck integrity must yield fastener withdrawal resistance values greater than 90 lb.

**3.04 SUBSTRATE PREPARATION (*Re-Roofing*)**

**A. General**

1. Roofing Contractor shall be responsible for informing the building owner/owner's representative with regard to the condition and structural integrity of the existing decking.
2. The building owner/owner representative shall make and be responsible for the determination as to the proper method of treatment and/or replacement.
3. Re-roofing applications require fastener withdrawal tests to substantiate proposed attachment patterns for insulation and/or base sheets.
4. Re-roofing applications that require modification to the deck and/or insulation system should be installed to provide positive slope and subsequent positive drainage of the new FiberTite-FB Roofing System.

**B. Removal of Existing Roof System(s)**

1. Remove all existing roofing material(s), insulation, flashing, metal and deteriorated wood blocking and legally dispose of off-site.
2. Remove only enough roofing to accommodate the days work and ensure the exposed area can be made 100% watertight at the end of the day or first sign of inclement weather.

**C. Re-cover of Existing Roof System(s)**

1. Remove all loose aggregate and debris by power broom and/or vacuum and legally dispose of off-site.
2. Remove and replace all wet or deteriorated insulation and wood blocking.
3. Clean all exposed metal surfaces such as pipes, pipe sleeves, drains, duct work, etc., by removing loose paint, rust and any asphalt or coal tar pitch of any kind. Remove and discard lead sleeves at soil stacks.
4. If the existing roof is coal tar pitch or has been repaired with coal tar pitch or has been re-saturated with coal tar pitch, a minimum 10 mil polyethylene "pitch vapor" retarder will be required.

**D. Steel and Wood Decks**

1. All rotted and/or deteriorated decking shall be removed and replaced with like kind.



2. Areas of structurally acceptable steel decking exhibiting slight surface rust shall be properly cleaned, primed and painted prior to installing the approved insulation.
3. All decking shall be inspected for proper attachment and excessive deflection that would compromise the uplift performance of the new adhered FiberTite-FB Roofing System.
4. Attachment and deflection deficiencies shall be repaired and brought into compliance with current, local building code requirements.

**E. Concrete, Gypsum and Cementitious Fiber**

1. Deteriorated decking shall be repaired and/or replaced with appropriate materials according to standard industry regulations and practices.
2. Repair any depressions and/or areas where reinforcing has become exposed.
3. When new insulation system is to be installed using hot asphalt or an approved adhesive:
  - a. Cracks and or camber differentials greater than 3/16 inch shall be repaired using an appropriate cementitious grout or fill, and feathered to promote a smooth transition.
  - b. Joints between pre-stressed, panel units and over bulb-tees shall be either taped, stripped or grouted with an appropriate cementitious fill.
  - c. All surface irregularities shall be leveled to insure a minimum of 85% contact with the decking for insulation bonded in hot asphalt or approved adhesives.
4. Where insulation is to be mechanically attached, camber differentials and/or surface irregularities of up to 1/2 inch shall be acceptable.

**F. Lightweight "Insulating" Concrete**

1. All saturated lightweight shall be removed and replaced with appropriate and/or compatible material.
2. Surface to receive new roof system shall be smooth and free of ridges depressions and other irregularities.
3. Repair any depressions, irregularities and/or excessive deflection with compatible material.

**3.05 WOOD NAILERS**

- A. Install treated lumber at the same heights as insulation layer or adjacent construction  $\pm 1/4$  in. Continuous treated wood nailers are to be installed at all perimeters, roof projections and penetrations as shown in approved details. In re-cover applications, the surface under the wood nailers shall be **FREE OF ALL GRAVEL** and shall be as even as possible.
- B. Where wood nailers are installed directly on the substrate, the substrate shall be carefully examined to confirm that the entire area provides a suitable fastening surface. All defects shall be repaired by the appropriate trade prior to installation.
- C. Nailers shall be installed and anchored in such a manner to resist a force of 250 lbf. per linear foot of wood blocking in any direction.
- D. Nailers along parapets, curbs and expansion joints are recommended for insulated decking. Consult FiberTite Construction Details or Technical Customer Services for optional/alternate membrane termination/securement methods.

**3.06 BASE SHEET**

**A. General**

1. Approved base sheet shall be applied only to properly prepared and pre-approved substrates.
2. Install no more than can be covered or made 100% watertight during the same working day.
3. Field pull-out tests must be performed for mechanically attached base sheets to determine fastener withdrawal performance.
4. Base sheets shall be installed starting at the low point of the roof deck.
5. Base sheet shall be side lapped, properly shingled to shed water, a minimum of 3 inches, leaving an exposure of approximately 33 inches.

**B. Mechanically Attached Base Sheet**

1. All base ply fasteners and stress plates for the mechanical attachment of base sheets shall be FTR BS Fasteners as provided by Seaman.
2. For attachment, approved base sheet is secured to the deck in the field of the roof, with FiberTite BS Fasteners, spaced a maximum of 7 inches o.c. through the minimum 3 inch side laps and at a maximum 7 in. o.c. in two rows within the field of the sheet.



3. The number of fasteners securing the base sheet shall be increased over the field spacing by 70% in the perimeter and 160% in the corners of the roof area.
4. Fastening increases can be obtained by adding rows of fasteners and/or additional fasteners along each row.

**C. Base Sheet Adhered with Hot Asphalt**

1. Hot asphalt shall be applied only to properly prepared and pre-approved substrates, free of any debris, dirt, grease, oil or moisture.
2. Base sheet shall be embedded into fluid, continuous application of hot Type III steep asphalt at a minimum application rate of 25 lbs per 100 ft<sup>2</sup>.
3. Base sheet shall be fully bonded to the substrate.

**3.07 ROOF INSULATION**

**A. General**

1. Install no more than can be covered during the same working day.
2. Roof insulation shall be installed where by the long dimension of the insulation panel(s) run in parallel alignment and the short dimension of the insulation panel(s) are staggered.
3. Insulation panels shall be installed with minimum joint dimensions and shall be tightly butted, where possible. Maximum joint widths shall be 3/8 in. Damaged corners shall be cut out and replaced with an insulation piece a minimum of 12 in. x 12 in. Insulation pieces which are cut from larger panels and are smaller than one square foot shall not be acceptable.
4. Taper roof insulation to drain sumps using tapered edge strips. If insulation layer is 1-1/2 in. or less, taper 12 in. from the drain bowl. If insulation thickness exceeds 1-1/2 in., taper 18 in. from the drain bowl. Mechanically fasten all tapers using two fasteners per board.
5. At the end of each working day, provide a watertight cover on all unused insulation to avoid moisture penetration.

**B. Mechanically Attached Insulation**

1. Insulation shall be applied only to properly prepared and pre-approved substrates, free of any debris, dirt, grease, oil or moisture.

2. All fasteners and stress plates for the mechanical attachment of insulation and/or cover board materials shall be FTR Fasteners as provided by Seaman.
3. All fasteners and stress plates shall be Factory Mutual Research approved for mechanical attachment of insulation and comply with FM Standard 4470 for corrosion resistance.
4. 1-90 attachment for insulation, <2 inch thickness = 1 fastener and stress plate per 4 ft<sup>2</sup> of insulation.
5. 1-90 attachment for insulation, <2 inch thickness = 1 fastener and stress plate per 2 ft<sup>2</sup> of insulation.
6. Roof insulation shall be fastened in accordance with the roof insulation manufacturer's recommendations and must be approved by the FTCS.
7. Fasteners shall be installed in accordance with manufacturer's recommendations, complying with minimum penetration requirements for specific deck types.
8. Fasteners shall be installed using depth sensing tool attachments to insure proper installation.

**C. Adhered Insulation**

**1. Hot Asphalt**

- a. Hot asphalt shall be applied only to properly prepared and pre-approved substrates, free of any debris, dirt, grease, oil or moisture.
- b. Insulation shall be set into a continuous flood coat of hot Type III steep asphalt applied to compatible substrate or properly attached base sheet/vapor retarder at a minimum application rate of 25 lbs per 100 ft<sup>2</sup>.
- c. Insulation shall be fully bonded to the substrate with a maximum board size of 4 ft. x 4 ft.
- d. Insulation shall be laid in such a manner to avoid squeezing hot asphalt between insulation joints. Exposed asphalt will require appropriate separation layer(s) prior to installing the new adhered FiberTite-FB Roofing System.
- e. Adhered insulation applications may require mechanical enhancement of exterior perimeter areas as outlined in FM LPD 1-29.



**2. Urethane, Polyurethane and Urethane-Asphalt**

- a. Adhesive shall be applied only to properly prepared and pre-approved substrates, free of any debris, dirt, grease, oil or moisture.
- b. The minimum product temperature at time of application shall be 70°F.
- c. The minimum ambient and surface temperature shall be 40°F.
- d. Insulation shall be set into a continuous 3/4" bead of adhesive at a minimum rate of one linear foot of adhesive for every one square foot of insulation board.
- e. Adhesive rates are to be increased in roof perimeter and corner zones per manufacturer's design recommendations.
- f. Place in the insulation onto the adhesive beads and walk on the boards, spreading the adhesive for maximum contact.
- g. A second walking will be required after ten (10) minutes to insure maximum contact and bond strength.
- h. Insulation shall be fully bonded to the substrate with a maximum board size of 4 ft. x 4 ft.

**3.08 INSTALLATION OF FIBERTITE-FB**

**A. Quality Control**

- 1. It is the responsibility of the roofing contractor to initiate a Quality Control program to govern all aspects of the installation of the new adhered FiberTite-FB Roofing System.
- 2. The job foreman and or supervisor will be responsible for the daily execution of the QC program which will include but is not limited to the supervision and inspection during substrate preparation, installation of insulation and/or base sheet, the application of adhesive(s), fasteners and probing of all heat welding incorporated within the FiberTite-FB system.
- 3. If any inconsistencies in the overall quality of the installation, including but not limited to the adhesion of the FiberTite-FB membrane or in the quality of the welds are found, all work shall cease until corrective actions are taken to insure the continuity of all workmanship.

**B. General**

- 1. All work shall be coordinated to insure that the sequencing of the installation will allow for a 100% watertight installation at the end of each work day.
- 2. FiberTite-FB Roofing Systems will utilize conventional "roll goods" 54 inches wide by 80 feet in length.
- 3. Outside ambient air temperature must be above 40°F to insure proper bonding.
- 4. Drying time of the adhesive(s) will be affected by ambient temperatures and must be taken into consideration when determining daily production schedules.

**C. Membrane Attachment**

- 1. Un-roll approximately 30 feet of the FiberTite-FB membrane and position the roll over the properly installed/prepared substrate. Pull the tail back over the roll to expose a workable area (approx. 30') of substrate.
- 2. Apply a 100% continuous coat of adhesive to the substrate.
  - a. **FTR 290 Adhesive**
    - 1. The amount substrate that can be coated with a workable amount of adhesive will be determined by application method, ambient temperature, humidity and available manpower.
    - 2. To insure proper application and curing of the adhesive, it is recommended that the outside air temperature be above 40°F.
    - 3. FTR-290 adhesive may be applied by roller or spraying. (See Table 2 for average coverage rates)
    - 4. Roller applied adhesive should utilize a solvent resistant 1/2" nap roller.
    - 5. Spray applied adhesive must be spread out by roller to insure a smooth, even, 100% coverage of the substrate with no holidays, globs, puddles or similar irregularities.
    - 6. Allow the solvents in the adhesive to dissipate only to the point that the adhesive has reached finger tack. Do not allow adhesive to "dry out."



*b. FTR 390 Adhesive*

1. The amount of substrate that can be coated with a workable amount of adhesive will be determined by application method, ambient temperature, humidity and available man power.
2. To insure proper application and curing of the adhesive, it is recommended that the outside air temperature be 50°F and rising with no chance of dropping below freezing during the subsequent evening.
3. FTR-390 adhesive may be applied by using a heavy, 1 inch nap roller or brush. (See Table 2 for average coverage rates.)
4. Roll or brush a heavy, smooth, even coat of adhesive over the substrate, insuring a 100% coverage of the substrate.
5. Allow the adhesive to become tacky or "sticky." Do not allow a film to develop on the adhesive or allow adhesive to "dry out."

*c. FTR 490 Adhesive*

1. The amount substrate that can be coated with a workable amount of adhesive will be determined by application method, ambient temperature, humidity and available man power.
2. To insure proper application and curing of the adhesive, it is recommended that the outside air temperature be above 40°F.
3. FTR-490 adhesive may is to be applied by roller. (See Table 2 for average coverage rates.)
4. Roller applied adhesive should utilize a solvent resistant 1/2" nap roller.
5. Adhesive must be spread out by roller to insure a smooth, even, 100% coverage of the substrate with no holidays, globs, puddles or similar irregularities.
6. Allow the adhesive to set up only to the point that the adhesive is still wet and stringy to the touch. Do not allow adhesive to "dry out."

3. Carefully maneuver the membrane into the "wet" adhesives over the substrate surface, avoiding any wrinkles or air pockets.
4. Broom the adhered portion of the membrane to insure full contact and complete the bonding process by firmly pressing the bonded membrane into place with a weighted, foam-covered roller.
5. Continue to repeat the process for the remainder of the roll, lapping subsequent, adjacent rolls of membrane a minimum of 3 inches, insuring proper shingling of the membrane to shed water along the laps.
6. Do not allow adhesives to contaminate the lap "seam" areas of the membrane. Contaminated areas will inhibit proper welding of the seams.

*D. Hot Air Welding*

*1. General*

- a. All field seams exceeding 10 ft. in length shall be welded with an approved automatic welder.
- b. All field seams must be clean and dry prior to initiating any field welding.
- c. Remove foreign materials from the seams (dirt, oils, etc.) with Acetone, MEK, or approved alternative. Use clean cotton cloths and allow approximately five minutes for solvents to dissipate before initiating the automatic welder. Do not use denim or synthetic rags for cleaning.
- d. All welding shall be performed only by qualified personnel to ensure the quality and continuity of the weld.

*2. Hand Welding*

- a. The lap or seam area of the membrane should be intermittently tack welded to hold the membrane in place.
- b. The back "interior" edge of the membrane shall be welded first, with a thin, continuous weld to concentrate heat along the exterior edge of the lap during the final welding pass.
- c. The nozzle of the hand-held hot air welder shall be inserted into the lap at a 45° angle to the lap. Once the polymer on the material begins to flow, a hand roller shall be use to apply pressure at a right angle to the tip of the hand welder. Properly welded seams shall utilize a 1-1/2" wide nozzle, to create a homogeneous weld, a minimum of 1-1/2" in width.





- d.* Smaller nozzles may be used for corners, and other field detailing, maintaining a minimum 1" weld.

**3. Automatic Machine Welding**

- a.* Proper welding of the FiberTite-FB Membrane can be achieved with a variety of automatic welding equipment. Contact FTCS for specific recommendations.
- b.* Follow all manufacturer's instructions for the safe operation of the automatic welder.
- c.* Follow local code requirements for electric supply, grounding and surge protection.
- d.* The use of a dedicated, portable generator is highly recommended to insure a consistent electrical supply, without fluctuations that can interfere with weld consistency.
- e.* Properly welded seams shall utilize a 1-1/2" wide nozzle, to create a homogeneous weld, a minimum of 1-1/2" in width.

**E. Inspection**

- 1.* The job foreman and/or supervisor shall initiate daily inspections of all completed work which shall include, but is not limited to the probing of all field welding with a dull pointed instrument.
- 2.* Insure that all aspects of the installation (sheet layout, attachment, welding, flashing details, etc.) are in strict conformance with the most current FiberTite-FB Roofing System Specifications and Details.
- 3.* Excessive patching of field seams will not be accepted at time of FINAL INSPECTION FOR WARRANTY ACCEPTANCE.

**3.09 FLASHING**

- A.* Clean all vents, pipes, conduits, tubes and stacks to bare metal. All protrusions must be properly secured to the roof deck with approved fasteners. Remove and discard all lead, pipe and drain flashing. Flash all penetrations according to approved details.
- B.* Remove all loose and/or deteriorated cant strips and flashing.
- C.* Flash all curbs, parapets and interior walls in strict accordance with approved FiberTite-FB details.

- D.* All flashing shall be fully adhered to properly prepared, approved substrate(s), with either FTR-190 adhesive or FTR #201 mastic applied in sufficient quantity to insure total adhesion.
- E.* The base flange of all membrane flashing shall extend out on to the plane of the deck, beyond the wood nailer to a maximum width of 8 in.
- F.* Vertical flashing shall be terminated no less than 8 in. above the plane of the deck with approved termination bar and counter-flashing or metal cap flashing.
- G.* Vertical wall flashing termination shall not exceed 30 inches without supplemental mechanical attachment of the flashing between the deck and the termination point of the flashing when using FTR #201 to adhere the flashing membrane.
- H.* Complete all inside and outside corner flashing details with FiberTite pre-formed corners or an approved field fabrication detail.
- I.* Probe all seams with a dull pointed probe to insure the weld has created a homogeneous bond.
- J.* Install penetration accessories in strict accordance with approved details. Insure penetration accessories have not impeded in any way the working specification. (Refer to the related trade for the technical specification).

**3.10 METAL FLASHING**

- A.* Perimeter edge details are to be fabricated from Fiber-Clad Metal or FiberTite Metal Fascia System.
- B.* Insure all fascia extend a minimum of 2 in. below the bottom of the wood nailers.
- C.* Fasten all metal flashing to wood nailers or approved substrate with approved fasteners 8 inches on center.
- D.* Break and install Fiber Clad metal in accordance with approved details. Insure proper attachment with 1/2 in. expansion joints and the installation of a minimum 2" bond breaker tape prior to sealing the joint.
- E.* Weld a 5" strip of FiberTite membrane over the Fiber Clad metal expansion joints. (Cover plates are optional.)
- F. Roof Drains*
  - 1.* Flash all roof drains in accordance with FiberTite details.
  - 2.* Replace all worn or broken parts that may cut the FiberTite membrane or prevent a watertight seal. This includes the clamping ring and strainer basket.
  - 3.* Replace all drain bolts or clamps used to hold the drain compression ring to the drain bowl.



4. FiberTite non-reinforced 60 mil membrane shall be used for flashing the drain assembly.
5. Drain assemblies and basins or “sumps” must be free of any asphalt or coal tar pitch residue prior to installation.

**G. Pitch Pans**

1. Reasonable effort shall be made to eliminate the need for pitch pans including the removal of all existing pans. Contact FiberTite Technical Customer Services for specific design alternatives and recommendations.
2. In the event of no alternative, fabricate pitch pans from Fiber Clad metal, installed in accordance with FiberTite details, insuring proper attachment, maintaining a minimum of 2 in. clearance around the penetration.
3. Pitch pans shall be filled with non-shrinking grout to within 1” or 2” of the top of the pan. Allow the grout to dry and fill the remainder of pan with FTR-SL1 pourable sealant.
4. Pitch Pans and the sealant will require periodic maintenance by the building owner’s maintenance personnel.

**3.11 EXPANSION JOINTS**

- A. Flash all expansion joints in accordance with authorized details. Fasten all expansion joint material according to FiberTite specifications.
- B. If the expansion joint is a “pre-formed” system, the manufacturer, description and a drawing illustrating the method of installation must be included when the FTR-WRF is submitted.

**3.12 SEALANTS**

- A. Apply authorized sealant(s) to all surface mounted reglets and where specified. Sealant(s) are to shed water, following manufacturer’s instructions and installation guides.
- B. Use primer when recommended by the manufacturer.
- C. Sealants will require periodic maintenance by the building owner’s maintenance personnel.

**3.13 TEMPORARY SEALS**

- A. At the end of each working day or at the first sign of inclement weather, install temporary, 100% watertight seal(s) where the completed new roofing adjoins the uncovered deck or existing roof surface.

- B. The authorized roofing contractor shall create and maintain the temporary seal in such a manner as to prevent water from traveling beneath the new and/or existing roof system.
- C. The use of plastic roofing cement is permissible when sealing to an existing built up roof.
- D. If water is allowed to enter beneath the newly completed roofing, the affected area(s) shall be removed and replaced at no additional expense to the building owner.
- E. Prior to the commencement of work, cut out and remove all contaminated membrane, insulation, roof cement and/or sealant and properly dispose of off-site.

**3.14 WALKWAYS**

- A. FiberTite walkways and protection pads shall be installed at staging areas for roof-top equipment maintenance or areas subject to regular foot traffic.

**B. Walkway Installation**

1. Roofing membrane to receive walkway material shall be clean and dry.
2. Cut and position the FiberTite walkway material as directed by the specifications or agreement and spot adhere in place using FTR #201 mastic.
3. Hot air weld the entire perimeter of the walkway to the previously cleaned FiberTite-FB roofing membrane.
4. Care must be taken during the welding process to insure that the underlying membrane is not scorched.

**C. Protection Pad Installation**

1. Roofing membrane to receive protection pad material shall be clean and dry.
2. Prior to installing the FiberTite protection pads (1/4” x 2’ x 4’), weld a 6” x 6” strip of FiberTite membrane to each of the four corners on the back side of the pad.
3. Position the strips in such a way that they overhang the 90° corners of the pad a minimum of two inches.
4. Position the FiberTite protection pads as directed by the specifications or agreement and weld the visible portion of the previously applied stripping to the FiberTite roofing membrane.



### 3.15 LIGHTNING PROTECTION

- A.* The installation of lightning protection must be coordinated with the authorized FiberTite roofing contractor, certified lightning contractor and the building owner.
- B.* The lightning protection must be installed in such a manner that base plates, air terminals and cables do not penetrate the roofing membrane without the use of pre-approved flashing details.
- C.* Cables and air terminals may be attached to the membrane using base plates and an approved construction adhesive or by welding intermittent strips of FiberTite membrane over the base plates and cables to the FiberTite roofing. Contact FiberTite Technical Customer Services for specific adhesive recommendations.
- D.* Recommendations regarding the selection of adhesives or alternative affixing of lightning protection systems to the FiberTite membrane does not in any way imply a warranty covering their performance or ability of the adhesives to remain affixed to the FiberTite membrane.

### 3.16 COMPLETION

- A.* Remove any and all debris, excess materials and scrap of any kind from the roof and surrounding premises prior to demobilization.
- B.* Inspect all field welds, detailing and terminations to insure a 100% the watertight installation.

### 3.17 WARRANTY INSPECTION

- A.* Upon completion of the project, the authorized roofing contractor shall complete and submit the FiberTite Project Completion Notice to FiberTite Technical Customer Services.
- B.* Upon receipt of the notice of completion, a FiberTite Technical Customer Service Representative will schedule an inspection with a representative of the authorized roofing contractor to thoroughly review the installation and verify compliance with Seaman Corporation specifications.
- C.* Any corrections or modifications necessary for compliance with the specifications and acceptance for warranty (punch list) will be noted on the Final Inspection for Warranty Form.
- D.* Upon completion of all punch list items and final acceptance of the installation, a warranty will be issued in accordance with the Seaman Corporation, pre-approved project specifications and Warranty Request Form.