



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

CONTRACTOR LICENSING SECTION
(305) 375-2527 FAX (305) 375-2558

CONTRACTOR ENFORCEMENT DIVISION
(305) 375-2966 FAX (305) 375-2908

PRODUCT CONTROL DIVISION
(305) 375-2902 FAX (305) 372-6339

PRODUCT CONTROL NOTICE OF ACCEPTANCE

Seaman Corporation
1000 Venture Boulevard
Wooster, OH 44691

Your application for Notice of Acceptance (NOA) of:

Fibertite Single Ply Roofing System for Cementitious Wood Fiber Decks

under Chapter 8 of the Code of Miami-Dade County governing the use of Alternate Materials and Types of Construction, and completely described herein, has been recommended for acceptance by the Miami-Dade County Building Code Compliance Office (BCCO) under the conditions specified herein.

This NOA shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at any time from a jobsite or manufacturer's plant for quality control testing. If this product or material fails to perform in the approved manner, BCCO may revoke, modify, or suspend the use of such product or material immediately. BCCO reserves the right to revoke this approval, if it is determined by BCCO that this product or material fails to meet the requirements of the South Florida Building Code.

The expense of such testing will be incurred by the manufacturer.

ACCEPTANCE NO.: 00-1208.04
EXPIRES: 01/04/2006

Raul Rodriguez
Chief Product Control Division

THIS IS THE COVERSHEET, SEE ADDITIONAL PAGES FOR SPECIFIC AND GENERAL
CONDITIONS
BUILDING CODE & PRODUCT REVIEW COMMITTEE

This application for Product Approval has been reviewed by the BCCO and approved by the Building Code and Product Review Committee to be used in Miami-Dade County, Florida under the conditions set forth above.

Francisco J. Quintana, R.A.
Director
Miami-Dade County
Building Code Compliance Office

APPROVED: 01/04/2001

<u>Category:</u>	Roofing	Approval Date: <u>January 4, 2001</u>
<u>Sub-Category:</u>	Single Ply	Expiration Date: <u>January 4, 2006</u>
<u>Material:</u>	Thermoplastic	
<u>Deck Type:</u>	Cementitious Wood Fiber	
<u>Maximum Design Pressure</u>	-45 psf	
<u>Fire Classification:</u>	See General Limitation #1	

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
FiberTite (33 mil)	56" x 100'	PA 114	thermoplastic, single ply membrane
FiberTite XT (45 mil)	53" x 100'		
	29" x 100'		
	28" x 100'		
	6" x 100'		
	20' x 64.5'		
	Assorted Pre-Fabricated widths and lengths		
FiberTite FB (40 mil Fleece Back)	54" x 100'	PA 114	thermoplastic, fleece-backed, single ply membrane
FTR Non-Reinforced	0.060" x 54" x 24'	PA 114	thermoplastic flashing accessory
FTR Cones	1" to 8"	PA 114	premolded "thermoplastic" pipe flashing
FTR Corners	2' x 2'	PA 114	premolded "thermoplastic" corner flashing (4 per unit)
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 SL1		proprietary	one part "pourable" urethane sealant
FiberClad	48" x 120"	n/a	polymeric coated G-90 galvanized steel or stainless steel
Tuff Trac	5/32" x 36" x 40' 1/4" x 24" x 48"	n/a	vinyl walk way vinyl protection pad
FTR Term. Bar	1/4" x 1" x 10'	PA 114	aluminum "membrane" termination and/or retainer bar



Frank Zuloaga, RRC
Roofing Product Control Examiner

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
FTR Term. Bar Fasteners	#14 x 1" SS-A ¼" x 1¼"	PA 114	stainless steel screws zinc expansion anchors
FTR Barbed Plate	2" diameter	PA 114	barbed round metal stress plate for membrane attachment
FTR XL Plate	2-3/8" diameter	PA 114	barbed round extra load metal stress plate for membrane attachment
FTR Plastic Insulation Plate	3" diameter	PA 114	locking plastic insulation stress plate
FTR Metal Insulation Plate	3" diameter	PA 114	round metal insulation stress plate
FTR #14 Fastener	various	PA 114	#14 membrane/insulation screws
FTR ESL Fastener	various	PA 114	pre- assembled seam plates and screws
FTR ESI Fastener	various	PA 114	pre- assembled insulation plates and screws
FTR XL Fastener	various	PA 114	extra load membrane / insulation screws
FTR Spike	various	PA 114	hammer in "non-threaded" membrane / insulation fastener for concrete decks

TRADE NAMES OF PRODUCTS MANUFACTURED BY OTHERS:

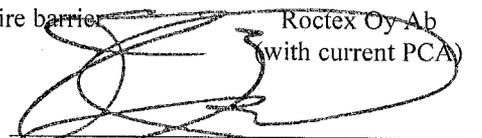
<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>	<u>Manufacturer</u>
Millox	various	PA 110	polyisocyanurate foam / wood fiber composite insulation	Apache Products Co. (with current PCA)
White Line	various	PA 110	polyisocyanurate foam insulation	Apache Products Co. (with current PCA)
ACFoam Composite	various	PA 110	polyisocyanurate foam / perlite composite insulation	Atlas Energy Products (with current PCA)
ACFoam II	various	PA 110	polyisocyanurate foam insulation	Atlas Energy Products (with current PCA)
HyTec	various	PA 110	polyisocyanurate foam insulation	Celotex Corp. (with current PCA)
HyTherm Composite	various	PA 110	polyisocyanurate foam / wood fiber composite insulation	Celotex Corp. (with current PCA)
E'NERG'Y-2	various	PA 110	polyisocyanurate foam insulation	NRG Barriers, Inc. (with current PCA)

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>	<u>Manufacturer</u>
E'NRG'Y-2 Composite	various	PA 110	polyisocyanurate foam / perlite composite insulation	NRG Barriers, Inc. (with current PCA)
Paroc Baseboard or Capboard	4' x 4'	PA 110	basalt wool insulation with glass fiber scrim facer.	Partek Insulations, Inc. (with current PCA)
Multi-Max Multi-Max FA	various	PA 110	polyisocyanurate foam insulation	R-Max, Inc. (with current PCA)
Thermarroof Composite	various	PA 110	polyisocyanurate foam / perlite composite insulation	R-Max, Inc. (with current PCA)
GAFTEMP Composite	various	PA 110	polyisocyanurate foam / perlite composite insulation	GAF (with current PCA)
FescoFoam, Fescore	various	PA 110	polyisocyanurate foam / perlite composite insulation	Schuller (with current PCA)
Celotherm	various	PA 110	perlite insulation	Celotex Corp. (with current PCA)
ConPerl	various	PA 110	perlite insulation	Conglas (with current PCA)
GAFTEMP Permalite	various	PA 110	perlite insulation	GAF Materials Corp. (with current PCA)
Fesco Board	various	PA 110	perlite insulation	Schuller International (with current PCA)
Esgard	various	PA 110	wood fiberboard insulation	BPCO, Inc. (with current PCA)
Celotex Fiberboard	various	PA 110	wood fiberboard insulation	Celotex Corp. (with current PCA)
GAFTEMP Fiberboard	various	PA 110	wood fiberboard insulation	GAF Materials Corp. (with current PCA)
Huebert Fiberboard	various	PA 110	wood fiberboard insulation	Huebert, Inc. (with current PCA)
KopR Wood Fiber	various	PA 110	wood fiberboard insulation	Koppers Industries (with current PCA)
N.T.B. Magnum	various	PA 114	Glass reinforced nylon fastener for use in gypsum and cementitious wood fiber.	Olympic (with current PCA)



Frank Zuloaga, RRC
Roofing Product Control Examiner

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>	<u>Manufacturer</u>
N.T.B. Spin Weld Plate	2" round	PA 114	2" round amorphorus nylon locking plate for use with N.T.B. fasteners with 1" head	Olympic (with current PCA)
N.T.B. Plastic Plate	3" round	PA 114	3" round polypropylene stress plate for use with N.T.B. fasteners	Olympic (with current PCA)
N.T.B. Plate	3" round	PA 114	3" round galvalume AZ55 plate for use with N.T.B. fasteners	Olympic (with current PCA)
Olympic Standard	3" round	PA 114	3" round galvalume AZ55 steel plate	Olympic (with current PCA)
Olympic Fastener #14	various	PA 114	Insulation fastener	Olympic (with current PCA)
Olympic Polypropylene	3.25" round	PA 114	Polypropylene insulation stress plate	Olympic (with current PCA)
Olympic Fastener #12	various	PA 114	Insulation fastener	Olympic (with current PCA)
Olympic ASAP	2" round	PA 114	Pre-Assembled membrane stress plate and fastener	Olympic (with current PCA)
HD Insul-Fixx Fastener	various	PA 114	Insulation fastener for use in steel and concrete decks	SFS Stadler (with current PCA)
Insul-Fixx Fastener	various	PA 114	Insulation fastener for steel and wood decks	SFS Stadler (with current PCA)
Insul-Fixx S	3" square	PA 114	3" square galvalume AZ55 insulation stress plate	SFS Stadler (with current PCA)
Insul-Fixx P	3" round	PA 114	3" round polyethylene insulation stress plate	SFS Stadler (with current PCA)
TPR	various	PA 114	Aluminum fastener for lightweight, gypsum and cementitious woodfiber decks	Specialty Products Co. (with current PCA)
Type X Gypsum	various		Fire resistant rated gypsum	generic
Dens-Deck	4' x 8'	PA 110	Gypsum board	Georgia-Pacific (with current PCA)
Insta-Stik Adhesive		PA 110	Insulation adhesive	Insta-Foam Products (with current PCA)
Rocroof		PA 110	Rockwool fire barrier	RocTex Oy Ab (with current PCA)


 Frank Zuloaga, RRC
 Roofing Product Control Examiner

EVIDENCE SUBMITTED:

<u>Test Agency/Identifier</u>	<u>Name</u>	<u>Report</u>	<u>Date</u>
Factory Mutual Research Corporation	Wind Resistance (Mechanically Attached)	J.I.# 0R8A9.AM (FMRC 4470 - PA 114)	03/12/94
Factory Mutual Research Corporation	Wind and Fire Resistance (Fully Adhered)	J.I.# 0Y7A2.AM (FMRC 4470 - PA 114)	11/28/94
Factory Mutual Research Corporation	Wind Resistance (Mechanically Attached)	J.I.#2Y0A4.AM (FMRC 4470 - PA 114)	11/01/94
Factory Mutual Research Corporation	Wind Resistance (Mechanically Attached)	J.I. #0X5A7.AM (FMRC 4470 - PA 114)	03/03/93
Factory Mutual Research Corporation	Wind Resistance (Mechanically Attached)	J.I. #1X5A8.AM (FMRC 4470 - PA 114)	0703/93
Factory Mutual Research Corporation	Wind Resistance (Mechanically Attached)	J.I. #2Z8A4.AM (FMRC 4470 - PA 114)	12/29/95
Factory Mutual Research Corporation	Fire Resistance (Mechanically Attached)	J.I. #2X2A2.AM (FMRC 4470 - PA 114)	06/17/94
Factory Mutual Research Corporation	Wind Resistance (Fully Adhered)	J.I. #1Y7A5.AM (FMRC 4470 - PA 114)	12/29/95
Factory Mutual Research Corporation	Pull-Through Testing	J.I. #1Z2A5.AM (FMRC 4470 - PA 114)	01/12/96
Factory Mutual Research Corporation	Insulation Attachment Requirements	FM Approval Guide	Published Annually
Factory Mutual Research Corporation	Wind/Fire Resistance (Fleece Backed)	J.I. 1Z3A8.AM (FMRC 4470 - PA 114)	08/13/97
Underwriters Laboratories	Fire Classifications	Listing R-10117	Published Annually
Underwriters Laboratories	Fire Resistance Testing	95NK20862	11/17/95
Underwriters Laboratories	Fire Resistance Testing	94NK40647	10/15/94
Warnock Hersey	Fire Resistance Tests	495-R-0735	Published Annually
Trinity Engineering, Inc.	Dynamic Pull-Through Testing, PA 117(B)	#4730.12.95-1	12/03/95
Exterior Research & Design, LLC.	Uplift Resistance PA 114(C) & PA 114(D)	#4015.10.96-1	10/02/96
Exterior Research & Design, LLC.	Uplift Resistance PA 114(J)	#4006.07.97-1	10/02/96



Frank Zuloaga, RRC
Roofing Product Control Examiner

TYPICAL PROPERTIES

WITHDRAWAL RESISTANCE PERFORMANCE - STATIC LOAD - PA 117A

Fastener	Deck Type	Static Withdrawal Resistance
FTR #14 Fastener	min. 15/32" plywood	138 lbf
FTR #14 Fastener	min. 22 ga. steel	152 lbf
FTR XL Fastener	min. 22 ga. steel	235 lbf
FTR XL Fastener	min. 3000 psi concrete	437 lbf
FTR Spike	min. 3000 psi concrete	533 lbf

1 A 2 to 1 margin of safety has been applied actual test results providing the above noted design values.

WITHDRAWAL RESISTANCE PERFORMANCE - PULSATING LOAD - PA 117A

Fastener	Deck Type	Pulsating Withdrawal Resistance
FTR #14 Fastener	min. 15/32" plywood	133 lbf
FTR #14 Fastener	min. 22 ga. steel	137 lbf
FTR XL Fastener	min. 22 ga. steel	179 lbf
FTR XL Fastener	min. 3000 psi concrete	313 lbf
FTR Spike	min. 3000 psi concrete	410 lbf

1 A 2 to 1 margin of safety has been applied actual test results providing the above noted design values.

DYNAMIC PULL-THROUGH PERFORMANCE - FIBERTITE SEAM ATTACHMENT - PA 117B

Stress Plate	Dynamic Pull-Through Value
FTR Barbed Plate	189.5 lbf
FiberTite XL	202.0 lbf
Olympic ASAP	187.5 lbf

1 Dynamic Pull-Through Values determined in compliance with Dade County Protocol PA 117(B) using FiberTite 33 mil membrane.

2 A 2 to 1 margin of safety has been applied actual test results providing the above noted design values.

DYNAMIC PULL-THROUGH PERFORMANCE - FIBERTITE MEMBRANE ATTACHMENT - PA 117B

Stress Plate	Dynamic Pull-Through Value
FTR Barbed Plate	350.0 lbf
SFS Stadler 70 mm Round	317.5 lbf

1 Dynamic Pull-Through Values determined in compliance with Dade County Protocol PA 117(B) using FiberTite 33 mil membrane.

2 A 2 to 1 margin of safety has been applied actual test results providing the above noted design values.



Frank Zuloaga, RRC
Roofing Product Control Examiner

APPROVED ASSEMBLIES:

Deck Type 5I: Cementitious Wood Fiber, Insulated, New Construction, Reroof

Deck Description: Cementitious wood fiber

System Type D: Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply.

<u>Insulation Base or Top Layer</u>	<u>Fastener Type</u>	<u>Fastening Detail No.</u>	<u>Fasteners Per Board</u>	<u>Fastener Density</u>
one or more layers of the following:				
Approved Type(s):	HyTec, Multi-Max			
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s):	E'NRG'Y-2			
Minimum: 1.4" x 3' x 4'	N/A	N/A	N/A	N/A
Approved Type(s):	ACFoam II, White Line			
Minimum: 1.0" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s):	Millox, ACFoam Composite, HyTherm Composite, GAFTEMP Composite, Thermarroof Composite, Fesco Foam, Fescore			
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s):	E'NRG'Y-2 Composite			
Minimum: 1.0" x 3' x 4'	N/A	N/A	N/A	N/A
Approved Type(s):	Wood Fiberboard			
Minimum: ½" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s):	Perlite			
Minimum: ¾" x 2' x 4'	N/A	N/A	N/A	N/A

Note: Top insulation layer shall have preliminary attachment at a density of two insulation fasteners per board for insulation boards having any one dimension no greater than 4 ft. and a minimum of four insulation fasteners per board for insulation boards having any one dimension greater than 4 ft. Composite insulation panels shall be placed with the polyisocyanurate side down.

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

Barrier: None.

Membrane: FiberTite or FiberTite XT roof cover attached through the preliminary fastened insulation to the deck following the fastening method specified below:

Fastening: Fasten with N.T.B. fasteners with 2" diameter head or Rawlite fasteners and Rawlite Lap Plates stress plates 6" o.c. through the 3.5" head laps or fastening tabs spaced 53" o.c.

Maximum Design Pressure: -45 psf.

Maximum Fire Classification: See General Limitation #1.

Maximum Slope: See General Limitation #1.



Frank Zuloaga, RRC
Roofing Product Control Examiner

Deck Type 5: Cementitious Wood Fiber, Noninsulated, New Construction, Reroof

Deck Description: Cementitious Wood Fiber.

System Type E: Membrane mechanically attached to deck.

All General and System Limitations apply.

Barrier: None.

Membrane: FiberTite or FiberTite XT roof cover attached through the preliminary fastened insulation to the deck following the fastening method specified below:

Fastening: Fasten with N.T.B. fasteners with 2" diameter head or Rawlite fasteners and Rawlite Lap Plates stress plates 6" o.c. through the 3.5" head laps or fastening tabs spaced 53" o.c.

Maximum Design Pressure: -45 psf.

Maximum Fire Classification: See General Limitation #1.

Maximum Slope: See General Limitation #1.



Frank Zuloaga, RRC
Roofing Product Control Examiner

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. **(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.)**



Frank Zuloaga, RRC
Roofing Product Control Examiner

NOTICE OF ACCEPTANCE STANDARD CONDITIONS

- 1 Renewal of this Acceptance (approval) shall be considered after a renewal application has been filed and the original submitted documentation, including test supporting data, engineering documents, are no older than eight (8) years.
- 2 Any and all approved products shall be permanently labeled with the manufacturer's name, city, state, and the following statement: "Miami-Dade County Product Control Approved", or as specifically stated in the specific conditions of this Acceptance.
- 3 Renewals of Acceptance will not be considered if:
 - a) There has been a change in the South Florida Building Code affecting the evaluation of this product and the product is not in compliance with the code changes;
 - b) The product is no longer the same product (identical) as the one originally approved;
 - c) If the Acceptance holder has not complied with all the requirements of this acceptance, including the correct installation of the product;
 - d) The engineer who originally prepared, signed and sealed the required documentation initially submitted, is no longer practicing the engineering profession.
- 4 Any revision or change in the materials, use, and/or manufacture of the product or process shall automatically be cause for termination of this Acceptance, unless prior written approval has been requested (through the filing of a revision application with appropriate fee) and granted by this office.
- 5 Any of the following shall also be grounds for removal of this Acceptance:
 - a) Unsatisfactory performance of this product or process;
 - b) Misuse of this Acceptance as an endorsement of any product, for sales, advertising or any other purposes.
- 6 The Notice of Acceptance 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 Notice of Acceptance is displayed, then it shall be done in its entirety.
- 7 A copy of this Acceptance as well as approved drawings and other documents, where it applies, shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at all times. The copies need not be resealed by the engineer.
- 8 Failure to comply with any section of this Acceptance shall be cause for termination and removal of Acceptance.
- 9 This Acceptance contains pages 1 through 11.

END OF THIS ACCEPTANCE



Frank Zuloaga, RRC
Roofing Product Control Examiner