



45 mil FiberTite-SM

Product Data

Seaman Corporation's 45 mil FiberTite-SM features an 18 x 19 / 840 x 1,000 denier weft reinforced polyester knit fabric, coated with a proprietary compound, utilizing DuPont's™ Elvaloy® Ketone Ethylene Ester (KEE) as the principle polymer in the hybrid vinyl alloy coating.

DESCRIPTION

45 mil FiberTite-SM is a 40-oz sq. yd/nominal 45-mil (1.1 mm) thick membrane. 45 mil FiberTite-SM not only meets or exceeds the minimum physical property requirements enumerated in ASTM D6754-02 Standard Specification for Ketone Ethylene Ester (KEE) Based Sheet Roofing, but exceeds the physical properties and performance characteristics of 60-mil competitive products.

Seaman Corporation is vertically integrated, which allows complete control over the manufacturing process from the selection of the yarns, to the engineering, knitting and weaving of the base fabrics to the final coating process. Today, FiberTite Roofing Membranes are the result of Seaman Corporation's 60 years of applied fabric engineering and coating technology.

All FiberTite Roofing Membranes are constructed using high tenacity/heavy weight yarns to create a base fabric reinforcement to impart superior puncture, tensile and tear resistance properties. The base polyester fabrics are primed with a unique and proprietary adhesive coat that lays the foundation to physically bond the KEE coatings to the "fiber" to maximize seam strength and overall membrane performance.

45 mil FiberTite-SM is coated on the face with Seaman Corporation's original "KEE" formulation to provide superior hot air welding characteristics, extreme UV resistance, broad chemical resistance and long-term flexibility and reparability for the installed roofing membrane system. The back side of the membrane is coated with a slightly modified (SM) economical version of Seaman Corporation's original KEE compound to control membrane costs while offering additional thickness and weather ability. Additionally, 45 mil FiberTite-SM exhibits excellent tear, puncture, fungus, algae and flame resistance that make FiberTite Roofing Systems some of the most sustainable roofing systems available.

45 mil FiberTite-SM membrane is manufactured in conventional, 74-in and 100-in wide by 100-ft roll goods. 45 mil FiberTite-SM is also available in customized prefabricated roll widths and lengths that incorporate integrated fastening tabs, sealing tabs and also "no-tab" rolls of membrane up to 20-ft wide by 100-ft in length. Field seaming of the membrane is accomplished by fusing the thermoplastic membrane with conventional hot air welding equipment.

PHYSICAL PROPERTIES

ASTM D6754-02	Minimum Requirements	45 mil Typical
Thickness, mm (in.) <i>ASTM D 751</i>	0.79 (0.031)	1.14 (0.045 nom.)
Thickness over Fiber, mm (in) <i>Optical method (inches)</i>	0.15 (0.006)	.37 (0.0145)
Breaking Strength, N (lbf) <i>ASTM D 751 proc. B - strip</i>	1175 (265)	1557 (350)
Elongation at Break, % <i>ASTM D 751 - strip</i>	15	18
Tear Strength, N (lbf) <i>ASTM D 751 Proc. B. Tongue Tear</i>	335 (75)	445 (100)
Linear Dimensional Change <i>ASTM D 1204 max (%)</i>	1.3	0.63
Fabric Adhesion, N/m (lbf/in) <i>ASTM D 751</i>	225 (13)	no peel
Retention of Properties after Heat Aging <i>ASTM D 3045 - 176°/56 days</i>		
Breaking Strength, strip, % original	90	90
Elongation at Break, strip, % original	90	90
Low Temperature Bend after Heat Aging	-30	-40
Low Temperature Bend <i>ASTM D 2136 (°f)</i>	-30	-40
Change in Weight after Exposure in Water <i>D 471 158°f, 166 h, one side only, max. (%)</i>	0.0, +6.0	0.0, +3.7
Factory Seam Strength, N (lbf) <i>ASTM D 751 Grab Method</i>	1780 (400)	> Fabric Break
Hydrostatic Resistance, Mpa (psi) <i>ASTM D751</i>	3.5 (500)	5.2 (750)
Static Puncture Resistance <i>ASTM D 5602 (99 lbf)</i>	pass	pass
Dynamic Puncture Resistance (J) <i>ASTM D 5635</i>	10	25



For more information on FiberTite Systems and accessories please call:
Seaman Corporation (800) 927-8578
International (330) 262-1111
www.fibertite.com

INTELLIGENT ROOFING SOLUTIONS

FiberTite® is a registered trademark of Seaman Corporation.



Subject to the conditions of Approval for a roof covering when installed as described in the current edition of the Approval Guide.



As to an external fire exposure only. See UL directory of products certified for Canada and UL roofing materials and systems directory 34KL, 48P0, 97P9.



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APPLICATION

45 mil FiberTite-SM Roofing Systems carry extensive FM Global and Underwriters Laboratories approvals. 45 mil FiberTite-SM Roofing Systems can be installed by mechanically fastening the membrane with FiberTite Magnum Fasteners and Stress Plates or adhering the membrane in FTR 190e bonding adhesive or FTR 490 bonding adhesive to pre-approved substrates. 45 mil FiberTite-SM can also be installed in typical ballast configurations using conventional stone or paver ballast.

For specific installation recommendations and requirements, please consult the most current versions of Seaman Corporation's Guide Specifications for the Installation of FiberTite Roofing Systems.

PHYSICAL PROPERTIES (cont.)

ASTM D6754-02	Minimum Requirements	45 mil Typical
Accelerated Weathering <i>Practice G 155 / xenon</i>	5000hr	>10000hr
cracking (7x magnification)	none	none
crazing (7x magnification)	none	none
Accelerated Weathering <i>Practice G 154 / UVA</i>	5000hr	>10000hr
cracking (7x magnification)	none	none
crazing (7x magnification)	none	none
Fungi Resistance <i>Practice G 21, 28 days</i>	no growth none	no growth none
Sustained Growth Discoloration		
Abrasion Test, cycles <i>D 3389 H-18 wheel / 1,000 g load</i>	1,500	2,000+
Additional Physical Properties		
Tensile Strength (psi) <i>ASTM D882</i>	8500	
Breaking Strength (lbs) <i>ASTM D751, Grab Method</i>	450	
Puncture Resistance (lbs) <i>ASTM D751, Bursting Strength</i>	350	
Water Vapor Transmission <i>ASTM E96 proc. A (gm/m²/24hrs)</i>	1.3	
Shore A Hardness <i>ASTM D2240</i>	87	
Flame Resistance <i>MIL-C-20696C / Type II Class 2</i>	pass	
Oil Resistance, MIL-C 20696C <i>No swelling, cracking or leaking</i>	none	
Hydrocarbon Resistance, MIL-C-20696C <i>No swelling, cracking or leaking</i>	none	
High Temperature Dead Load <i>ASTM D751 (50 lbs, 160°F, 4 hrs)</i>	pass	
Energy Attributes (Color DC196 Off-White)		
Solar Reflectance <i>ASTM E903</i> <i>ASTM E1918</i>	79% 83%	
Solar Reflectance (3 yr aged) <i>ASTM C1549</i>	Un-Cleaned 66%	Cleaned 78%
Solar Emittance <i>ASTM E408</i> <i>ASTM C1371</i>	95% 85%	
Solar Emittance (3 yr aged) <i>ASTM C1371</i>	Un-Cleaned 74%	Cleaned 81%
Energy Star	yes	
Solar Reflective Index (SRI) <i>ASTM E1980</i>	98.54	
LEED 2.2 - Heat Island Effect <i>SS Credit 7.2</i>	1 Credit	



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