



## 8540 FiberTite-SM

### Product Data

Seaman Corporation's 8540 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

8540 FiberTite-SM is a 40-oz sq. yd/nominal 45-mil (1.1 mm) thick membrane. 8540 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.

8540 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, 8540 FiberTite-SM exhibits excellent tear, puncture, fungus, algae and flame resistance that make FiberTite Roofing Systems some of the most sustainable roofing systems available.

8540 FiberTite-SM membrane is manufactured in conventional 56-in, 74-in, and \*100-in wide by 100-ft roll goods. 8540 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.

A fleece back version of 8540 FiberTite-SM is also available. The 8540 FiberTite-SM fleece back membrane incorporates a 6-oz per sq. yd non-woven polyester felt, heat bonded to the back side of the membrane with a 3-in selvage edge for field welding. 8540 FiberTite-SM fleece back is manufactured in conventional 72-in by 80-ft roll goods.

#### PHYSICAL PROPERTIES

ASTM D6754-02	Minimum Requirements	8540 Typical
<b>Thickness, mm (in.)</b> <i>ASTM D 751</i>	0.79 (0.031)	1.14 (0.045 nom.)
<b>Thickness over Fiber, mm (in)</b> <i>Optical method (inches)</i>	0.15 (0.006)	.37 (0.0145)
<b>Breaking Strength, N (lbf)</b> <i>ASTM D 751 proc. B - strip</i>	1175 (265)	1557 (350)
<b>Elongation at Break, %</b> <i>ASTM D 751 - strip</i>	15	18
<b>Tear Strength, N (lbf)</b> <i>ASTM D 751 Proc. B. Tongue Tear</i>	335 (75)	445 (100)
<b>Linear Dimensional Change</b> <i>ASTM D 1204 max (%)</i>	1.3	0.63
<b>Fabric Adhesion, N/m (lbf/in)</b> <i>ASTM D 751</i>	225 (13)	no peel
<b>Retention of Properties after Heat Aging</b> <i>ASTM D 3045 - 176°F/56 days</i>		
<b>Breaking Strength, strip, % original</b>	90	90
<b>Elongation at Break, strip, % original</b>	90	90
<b>Low Temperature Bend after Heat Aging</b>	-30	-40
<b>Low Temperature Bend</b> <i>ASTM D 2136 (°f)</i>	-30	-40
<b>Change in Weight after Exposure in Water</b> <i>D 471 158°F, 166 h, one side only, max. (%)</i>	0.0, +6.0	0.0, +3.7
<b>Factory Seam Strength, N (lbf)</b> <i>ASTM D 751 Grab Method</i>	1780 (400)	> Fabric Break
<b>Hydrostatic Resistance, Mpa (psi)</b> <i>ASTM D751</i>	3.5 (500)	5.2 (750)
<b>Static Puncture Resistance</b> <i>ASTM D 5602 (99 lbf)</i>	pass	pass
<b>Dynamic Puncture Resistance (J)</b> <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

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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, 48PO, 97P9.



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### APPLICATION

8540 FiberTite-SM Roofing Systems carry extensive FM Global and Underwriters Laboratories approvals. 8540 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 490 bonding adhesive to pre-approved substrates. 8540 FiberTite-SM can also be installed in typical ballast configurations using conventional stone or paver ballast. 8540 FiberTite-SM fleece back versions can be adhered in FTR 290, FTR 390 or FTR 490 adhesives or hot asphalt to a variety of pre-approved substrates.

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.

\*Targeted availability for 100-in wide 8540 FiberTite-SM is fall of 2008.

### PHYSICAL PROPERTIES (cont.)

ASTM D6754-02	Minimum Requirements	8540 Typical
<b>Accelerated Weathering</b> <i>Practice G 155 / xenon</i>	5000hr	>10000hr
<b>cracking (7x magnification)</b>	none	none
<b>crazing (7x magnification)</b>	none	none
<b>Accelerated Weathering</b> <i>Practice G 154 / UVA</i>	5000hr	>10000hr
<b>cracking (7x magnification)</b>	none	none
<b>crazing (7x magnification)</b>	none	none
<b>Fungi Resistance</b> <i>Practice G 21, 28 days</i>	no growth none	no growth none
<b>Sustained Growth Discoloration</b>		
<b>Abrasion Test, cycles</b> <i>D 3389 H-18 wheel / 1,000 g load</i>	1,500	2,000+
<b>Additional Physical Properties</b>		
<b>Tensile Strength (psi)</b> <i>ASTM D882</i>		8500
<b>Breaking Strength (lbs)</b> <i>ASTM D751, Grab Method</i>		450
<b>Puncture Resistance (lbs)</b> <i>ASTM D751, Bursting Strength</i>		350
<b>Water Vapor Transmission</b> <i>ASTM E96 proc. A (gm/m<sup>2</sup>/24hrs)</i>		1.3
<b>Shore A Hardness</b> <i>ASTM D2240</i>		87
<b>Flame Resistance</b> <i>MIL-C-20696C / Type II Class 2</i>		pass
<b>Oil Resistance, MIL-C 20696C</b> <i>No swelling, cracking or leaking</i>		none
<b>Hydrocarbon Resistance, MIL-C-20696C</b> <i>No swelling, cracking or leaking</i>		none
<b>High Temperature Dead Load</b> <i>ASTM D751 (50 lbs, 160°F, 4 hrs)</i>		pass
<b>Energy Attributes (Color DC196 Off-White)</b>		
<b>Solar Reflectance</b> <i>ASTM E903</i> <i>ASTM E1918</i>		79% 83%
<b>Solar Reflectance (3 yr aged)</b> <i>ASTM C1549</i>	Un-Cleaned 66%	Cleaned 78%
<b>Solar Emittance</b> <i>ASTM E408</i> <i>ASTM C1371</i>		95% 85%
<b>Solar Emittance (3 yr aged)</b> <i>ASTM C1371</i>	Un-Cleaned 74%	Cleaned 81%
<b>Energy Star</b>		yes
<b>Solar Reflective Index (SRI)</b> <i>ASTM E1980</i>		98.54
<b>LEED 2.2 - Heat Island Effect</b> <i>SS Credit 7.2</i>		1 Credit



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