

RL FIBERTITE MEMBRANE-SM

FOR ULTRATHERM XTREME FIBERTITE MEMBRANE SYSTEMS

INTRODUCTION

FiberTite membrane is manufactured by Seaman Corporation. Seaman Corporation has 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 maximise seam strength and overall membrane performance.

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.

FiberTite SM is manufactured in 1.85m x 30m roll goods. 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. Field seaming of the membrane is accomplished by fusing the thermoplastic membrane with conventional hot air welding equipment.

APPLICATION

FiberTite SM membranes can be fully adhered or mechanically attached. FiberTite SM is adhered using RL 190EHT bonding adhesive on properly prepared, sound, load bearing substrates that provide sufficient wind uplift for the building type and location.

Refer to RoofLogic specifications for correct installation processes and contact RoofLogic for technical assistance.

FiberTite SM membranes can also be mechanically attached utilising a range of mechanical fixing components supplied by RoofLogic. Contact RoofLogic for specific fixing plans to ensure that the fixing design and substrate will achieve the required wind uplift resistance.



Rooflogic Fibertite SM being adhered to plywood gutters with RL 190E

DESCRIPTION

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

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, it also exceeds the physical properties and performance characteristics of all 1.5 mm thick competitive products.

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PHYSICAL PROPERTIES

ASTM D6754-02	MINIMUM REQUIREMENTS	FIBERTITE SM TYPICAL
Thickness, mm ASTM D 751	0.79	0.91
Thickness over Fiber, mm Optical method	0.18	0.23
Breaking Strength, N ASTM D 751 proc. B – strip	1499	1557
Elongation at Break, % ASTM D 751 – strip	15	18
Tear Strength, N ASTM D 751 Proc. B. Tongue Tear	338	445
Linear Dimensional Change ASTM D 1204 max (%)	1.3	0.63
Fabric Adhesion, N/m ASTM D 751	3330	no peel
Retention of Properties after Heat Aging ASTM D 3045 – 80oC/56 days	90	90
Breaking Strength, strip, % original	90	90
Elongation at Break, strip, % original		
Low Temperature Bend after Heat Aging	-30	-30
Low Temperature Bend ASTM D 2136 (°)	-30	-30
Change in Weight after Exposure to Water D 471 70oC, 166 h, one side only, max (%)	0.0,+6.0	0.0, +3.7
Factory Seam Strength, N ASTM D 751 Gram Method	1955	>Fabric Break
Hydrostatic Resistance, Mpa ASTM D 751	4.1	4.8
Static Puncture Resistance ASTM D 5602	pass	pass
Dynamic Puncture Resistance (J) ASTM D 5635	10	20
Accelerated Weathering Practice G 155 / xenon	5000 hr	>10000 hr
Cracking (7x magnification)	none	none
Crazing (7x magnification)	none	none
Accelerated Weathering Practice 154 / UVA	5000 hr	>10000 hr
Cracking (7x magnification)	none	none
Crazing (7x magnification)	none	none
Fungi Resistance Practice G 2, 28 days Sustained Growth Discolouration	no growth none	no growth none
Abrasion Test, cycles D 3389 H-18 wheel / 1000 g load	1,500	2,000+

PHYSICAL PROPERTIES

ADDITIONAL PHYSICAL PROPERTIES	
Tensile Strength ASTM D882 (psi)	8500
Breaking Strength ASTM D751, Grab Method	2000 N
Puncture Resistance ASTM D751, Bursting Strength	1550 N
Water Vapour Transmission ASTM E96 proc. A (gm/m ² /24hrs)	1.3
Shore A Hardness ASTM D2240	87
Flame Resistance MIL-C-20696C / Type II Class 2	pass
Oil Resistance, MIL-C-20696C No swelling, cracking or leaking	none
Hydrocarbon Resistance, MIL-C-20696C No swelling, cracking or leaking	none
High Temperature Dead Load ASTM D 751 (23kg/70oC/4hrs)	pass

ENERGY ATTRIBUTES	
Initial Solar Reflectance ASTM C1549	0.69
Solar Reflectance (3 yr aged) ASTM C1549	.61
Initial Thermal Emittance ASTM C1371	0.89
Thermal Emittance (3 yr aged) ASTM C1371	.89
Solar Reflective Index (SRI) ASTM E1980	84
Solar Reflective Index (SRI) (3 yr aged) ASTM E1980	73
Energy Star	YES
LEED v4 - Heat Island Reduction SS Credit	1 Credit