ROOFLOGIC

TECHNICAL DATASHEET

RL FIBERTITE MEMBRANE-FB

For Ultratherm Xtreme FiberTite Membrane System

FiberTite Membranes are the result of Seaman Corporation's 75 years of applied fabric engineering and coating technology.

RL FiberTite Membrane - FB installed at
Tākina Wellington Convention & Exhibition Centre

DESCRIPTION

The FiberTite Membrane is the result of Seaman Corporation's 75 years of applied fabric engineering and coating technology.

Seaman Corporation has complete control over the manufacturing process, from yarn selection to engineering, knitting, weaving, and final coating, Seaman Corporation brings you the culmination of 75 years of fabric engineering and coating technology.

Each FiberTite Roofing Membrane is crafted using high tenacity/heavy weight yarns, creating a robust base fabric reinforcement that imparts outstanding properties, including superior puncture, tensile, and tear resistance. The base polyester fabrics are primed with a unique adhesive coat, forming a strong bond that maximises seam strength and overall membrane performance.

FiberTite's formulation offers unparalleled benefits, such as superior hot air welding characteristics, extreme UV resistance, broad chemical resistance, and long-term flexibility and separability for the installed roofing membrane system.

Field seaming of the membrane is achieved by fusing the thermoplastic membrane using conventional hot air welding equipment, ensuring secure and reliable connections.

Available in 1.82 metre by 24.40 metre roll dimensions.

ADVANTAGES

The FiberTite FB membrane features a weft-reinforced polyester knit fabric with an 18 x 19 / 840 x 1,000 denier,. It is coated with a proprietary compound that utilises DuPont™ Elvaloy® Ketone Ethylene Ester (KEE) as the primary polymer in its hybrid alloy coating, ensuring enhanced flexibility, chemical resistance, and long-term performance.

The FiberTite FB membrane incorporates 120gm/m^2 non-woven polyester felt, heat bonded to the back side of the membrane with a 75 mm selvedge edge for field welding.

FiberTite FB exceeds the minimum physical property requirements enumerated in ASTM D6754-02 Standard Specification for Ketone Ethylene Ester (KEE) Based Sheet Roofing. It exceeds the physical properties and performance characteristics of all competitor products at 1.5 mm thickness.

FiberTite FB is manufactured in conventional 1.82 metre by 24.40 metre roll dimensions.

RoofLogic Fleece-Backed Membrane installed over Nelson Airport.

Adhesive Compatibility			
Substrate	Primer	Adhesive	Coverage
Plywood	Primer or two coat application	400u 490u 490e 220(double side)	160m^2 40m^2 60m^2 80m^2
Concrete			
RL Roof-board HDP/LW	N/A		
RL PIR CF			

(refer to adhesive data sheets for substrate options/conditions, coverage rates, environmental conditions)

For specific installation recommendations and requirements, refer to RoofLogic specifications. For project specifications and technical assistance please contact RoofLogic.

Slate Grey CR Grey

PHYSICAL PROPERTIES

ASTM D6754-02	Minimum Requirements	fibertite FB 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	18	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	225	No Peel
Retention of Properties after Heat Aging ASTM D 3045 – 80oC/56 days Breaking Strength, strip, % original Elongation at Break, strip, % original	 90 90	 90 90
Low Temperature Bend after Heat Aging	-30	-30
Low Temperature Bend ASTM D 2136 (oC)	-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	5000hr	>10000hr
Cracking (7x magnification)	none	none
Crazing (7x magnification)	none	none
Accelerated Weathering Practice 154 / UVA	5000hr	>10000hr
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	1500	1500+

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PHYSICAL PROPERTIES

Additional Physical Properties	
Tensile Strength ASTM D882	586 Bar
Breaking Strength ASTM D751, Grab Method	2000N
Puncture Resistance ASTM D751, Bursting Strength	1550N
Water Vapour Transmission ASTM E96 proc. A (gm/m2/24hrs)	1.3
Shore A Hardness ASTM D2240	87
Flame Resistance MIL-C-20696C / Type II Class 2	pass
Test for Flammability of Materials AS1530.2-1993	Flammability Index 1
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