Seaman Corporation Material Specification

8142 XR®-PW

Flexible Reinforced Geomembrane for Potable Water Applications

NSF Certified to NSF/ANSI/CAN 61

Physical Property	Test Method	Imperial	Metric
Base Fabric	type	Polyester	
Base Fabric Weight	ASTM D751 Nominal	6.5 oz/ yd^2	220 g/ m^2
Thickness	ASTM D751 Typical	45 mil (minimum)	1.14 mm (minimum)
Weight	ASTM D751	42 oz/ yd^2 ±2 oz/ yd^2	1424 g/ m^2 ±70 g/ m^2
Tear Strength	ASTM D4533 Trap Tear - Warp/Fill	40/40 lbf (minimum)	178/178 N (minimum)
Breaking Yield Strength	ASTM D751 Grab Tensile - Warp/Fill	550/550 lbf	2450/2450 N
Low Temperature Resistance	ASTM D 2136 Low Temperature Bend	Pass @ -30˚ F	Pass @ -34˚ C
Adhesion-Heat Welded	ASTM D751 Dielectric Weld	40 lbf/ 2 in	17.5 daN/ 5 cm
Bursting Strength	ASTM D751 Ball Tip	750 lbf	3340 N
Hydrostatic Resistance	ASTM D751 Procedure A	800 psi (minimum)	5.52 Mpa (minimum)

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Physical Property	Test Method	Imperial	Metric
Dead Load Seam Strength 2" (50.8mm) seam, 1"(25.4mm) strip	ASTM D751 4 hour test @ 160° F (71° C) 4 hour test @ 70° F (21° C)	120 lbf/ in 240 lbf/ in	534 N/ 2.54 cm 1068 N/ 2.54 cm
Blocking Resistance	ASTM D751 180˚F (82˚C)	#2 Rating, max.	
Bonded Seam Strength	ASTM D751 Procedure A - Grab	550 lbf (minimum)	2450 N (minimum)
Weathering Resistance	ASTM G155 Xenon	8000 hours minimum - no appreciable changes or stiffening or cracking of coating	
Water Absorption	ASTM D471 One-side exposure -7 Days	0.025 kg/m^2 (max.) @ 70˚ F/ 21˚ C	
Puncture Resistance	ASTM D4833	275 lbf (minimum)	1225 N (minimum)
Coefficient of Thermal Expansion/Contraction	ASTM D696	2.1 10^{-5} in/ in/˚F	3.8 10^{-5} cm/ cm/˚C
Dimensional Stability	ASTM D1204 100˚C/1 hour	0.5% max. each direction	

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