



## HIGH PERFORMANCE XR-5® 8138 REINFORCED GEOMEMBRANE

XR 5® 8138 Reinforced	US Units	Metric Units
Base Fabric Type	Polyester	
Base Fabric Weight (nominal) ASTM D3776	6.5 oz/yd <sup>2</sup>	220 g/m <sup>2</sup>
Thickness ASTM D751	40.0 mils (nominal)	1.0 mm (nominal)
Weight ASTM D751	38.0 ± 2 oz/yd <sup>2</sup>	1288 ± 70 g/m <sup>2</sup>
Tear Strength ASTM D4533, Trapezoid Tear	35/35 lbf (min.)	155/155 N (min)
Breaking Strength ASTM D751, Grab Tensile	550/550 lbf (min.)	2447/2447 N (min)
Low Temperature ASTM D2136, 4hr – 1/8" mandrel	Pass @ 30 °F	Pass @ 35 °C
Dimensional Stability ASTM D1204, 212°F / 100°C – 1 hr	1.5% max. each direction	
Adhesion – Heat Sealed Seam ASTM D751, Dielectric Weld	35 lbf/2 in (min.)	15 daN/5 cm (min.)
Dead Load – Seam Shear Strength ASTM D751 (modified) Para. 4.5.2.19	2 in seam, 4 hr, 1 in strip 210 lbf @ 70°F 105 lbf @ 160°F	5 cm seam, 4 hr, 2.5 cm strip 934 N @ 21°C 467 N @ 70°C
Bursting Strength ASTM D751 Ball Tip	650 lbf (min.) 800 lbf (typical)	2892 N (min.) 3560 N (typical)
Hydrostatic Resistance ASTM D751, Method A	800 psi (min.)	5.51 MPa (min.)
Blocking Resistance ASTM D751 (180°F / 82°C)	#2 Rating (max.)	
Adhesion – Ply ASTM D413	15 lbf/in (min.) or Film Tearing Bond	13 daN/5cm (min.) or Film Tearing Bond
Bonded Seam Strength ASTM D751 as modified by NSF 54	550 lbf (min.)	2447 N (min.)
Abrasion Resistance ASTM D3389 (H18 Wheel, 1000 g load)	2,000 cycles (min.) before fabric exposure 50 mg/ 100 cycles max weight loss	
Weathering Resistance ASTM G23 (CarbonArc)	8,000 hrs (min.) No appreciable changes or stiffening or cracking of coating	
Water Absorption ASTM D471, Section 12, 7 days	0.025 kg/m <sup>2</sup> (max.) @ 70°F / 21°C 0.14 kg/m <sup>2</sup> (max.) @ 212°F / 100°C	
Wicking ShelterRite® Procedure	1/8 in (max.)	0.3 cm (max.)
Puncture Resistance ASTM D4833	250 lbf (min.)	1112 N (min.)
Coefficient of Thermal Expansion / Contraction ASTM D696	8 x 10 <sup>-6</sup> in/in/°F (max.)	1.4 x 10 <sup>-5</sup> cm/cm/°C (max.)