

## High Performance XR-5<sup>®</sup> 8138 Reinforced Geomembrane

XR-5 <sup>®</sup> 8138 Reinforced	Test Method	Standard	Metric
Base Fabric Type Base Fabric Weight (nominal)	ASTM D3776	Polyester 6.5 oz/yd <sup>2</sup>	Polyester 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 lb <sub>f</sub> min	155/155 N min
Breaking Yield Strength	ASTM D751 Grab Tensile	550/550 lb <sub>f</sub> min	2447/2447 N min
Low Temperature	ASTM D2136 4 hr - 1/8" mandrel	Pass @ -30° F	Pass @ -35° C
Dimensional Stability	ASTM D1204 212° F - 1 hr	1.5% max each direction	1.5% max each direction
Adhesion Heat Sealed Seam	ASTM D751 Dielectric Weld	35 lb <sub>f</sub> /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 lb <sub>f</sub> @ 70° F 105 lb <sub>f</sub> @ 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 lb <sub>f</sub> min 800 lb <sub>f</sub> typical	2892 N minimum 3560 N typical

## GEOMEMBRANE SPECIFICATIONS

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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 lb <sub>f</sub> /in min or Film Tearing Bond	13 daN/5 cm min or Film Tearing Bond
Bonded Seam Strength	ASTM D751 Seam Strength as modified by NSF 54	550 lb <sub>f</sub> min	2447 N min
Abrasion Resistance	ASTM D3389 H-18 Wheel 1000 g Load	2000 cycles (min) before fabric exposure 50 mg/100 cycles max weight loss	
Weathering Resistance	ASTM G23 (Carbon-Arc)	8000 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	Shelter-Rite <sup>®</sup> Procedure	1/8 in max	0.3 cm max
Puncture Resistance	ASTM D4833	250 lb <sub>f</sub> 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

**Seaming:** Thermal welding methods are recommended. No glues or solvents are suggested.

We believe this information is the best currently available on the subject. We offer it as a suggestion in any appropriate experimentation you may care to undertake. It is subject to revision as additional knowledge and experience are gained. We make no guarantee of the results and assume no obligation or liability whatsoever in connection with this information. In case of conflict between standard and metric specifications, standard shall apply.