

HIGH PERFORMANCE XR-5® 8142 PW REINFORCED GEOMEMBRANE

XR-5® 8142 PW Reinforced	US Units	Metric Units
Base Fabric Type ASTM D3776	Polyester	
Base Fabric Weight (nominal) ASTM D3776	6.5 oz/yd ²	220 g/m ²
Thickness ASTM D751	45.0 mils (min.)	1.13 mm (min.)
Weight ASTM D751	42.0 ± 2 oz/yd ²	1424 ± 70 g/m ²
Tear Strength ASTM D4533, Trapezoid Tear	40/55 lb _f (min.)	175/245 N (min)
Breaking Strength ASTM D751, Grab Tensile	550/550 lb _f (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	0.5% max. each direction	
Adhesion – Heat Sealed Seam ASTM D751, Dielectric Weld	40 lb _f /2 in (min.)	17.5 daN/5 cm (min.)
Dead Load – Seam Shear Strength ASTM D751	2 in seam, 4 hr, 1 in strip 240 lb _f /in @ 70°F 120 lb _f /in @ 160°F	5 cm seam, 4 hr, 2.5 cm strip 1068 N/2.54cm @ 21°C 534 N/2.54cm @ 70°C
Bursting Strength ASTM D751 Ball Tip	750 lb _f (min.)	3330 N (min.)
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 _f /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.)	2450 N (min.)
Abrasion Resistance ASTM D3389 (H-18 Wheel, 1000 g load)	2,000 cycles (min.) before fabric exposure 50 mg/ 100 cycles max weight loss	
Weathering Resistance ASTM G23 (Carbon-Arc)	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 ² (max.) @ 70°F / 21°C 0.14 kg/m ² (max.) @ 212°F / 100°C	
Wicking Shelter-Rite® Procedure	1/8 in (max.)	0.3 cm (max.)
Puncture Resistance ASTM D4833	275 lb _f (min.)	1200 N (min.)
Coefficient of Thermal Expansion / Contraction ASTM D696	8 x 10 ⁻⁶ in/in/°F (max.)	1.4 x 10 ⁻⁵ cm/cm/°C (max.)