Global PLASTIC SHEETING

High Performance XR-5® 8138 Reinforced Geomembrane

XR-5® 8138 Reinforced	Test Method	Standard	Metric
Base Fabric Type Base Fabric Weight (nominal)	ASTM D751	Polyester 6.5 oz/yd^2	Polyester 220 g/m^2
Thickness	ASTM D751	40.0 mils nominal	1.0 mm nominal
Weight	ASTM D751	38.0 ± 2 oz/yd^2	1288 ± 70 g/m^2
Tear Strength	ASTM D4533 Trapezoid Tear	40/55 lb min	175/245 N min
Breaking Yield Strength	ASTM D751 Grab Tensile	550/550 lb min	2448/2448 N min
Low Temperature Resistance	ASTM D2136 4 hrs. - 1/8" mandrel	Pass @ -30° F	Pass @ -34° C
Dimensional Stability	ASTM D1204 212° F / 100° C - 1 hr.	0.5% max each direction	0.5% max each direction
Adhesion Heat Sealed Seam	ASTM D751 Dielectric Weld	40 lb/2 in min	17.5 daN/5 cm min
Dead Load Seam Strength	ASTM D751 4-hour test	2 in seam, 4 hrs, 1 in strip Pass 240 lb @ 70° F Pass 120 lb @ 160° F	5 cm seam, 4 hrs, 2.5 cm strip Pass 1068 N/2.54cm @21° C Pass 534 N/2.54cm @ 70° C
Bursting Strength	ASTM D751 Ball Tip	750 lb min	3330 N min

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Hydrostatic Resistance	ASTM D751 Procedure	800 psi min	5.51 MPa min
Blocking Resistance	ASTM D751 180° F/82° C	#2 Rating max	
Adhesion - Ply	ASTM D413 Type A	15 lb/in min or Film Tearing Bond	13 daN/5 cm min or Film Tearing Bond
Bonded Seam Strength	ASTM D751 Grab Test Method Procedure A	550 lb min	2450 N min
Abrasion Resistance	ASTM D3389 H-18 Wheel 1kg Load	2000 cycles (min) before fabric exposure 50 mg/100 cycles max weight loss	
Weathering Resistance	ASTM G153 (Carbon-Arc)	8000 hrs (min) No appreciable changes or stiffening or cracking of coating	
Water Absorption	ASTM D471 Section 12 7 Day s	0.025 kg/m^2 max @ 70° F/21° C 0.14 kg/m^2 max @ 212° F/100° C	
Wicking	ASTM D751	1/8 in max	0.3 cm max
Puncture Resistance	ASTM D4833	275 lb 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
Environmental/Chemical Resistant Properties	See Chemical Resistance Table		
Puncture Resistance	FED-STD 101C Method 2031	350 lbs (approximate)	1550 N (approximate)

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

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