

XR-5 / XR-3 KEE Elvaloy®

XR-5 and XR-3

XR geomembranes are reinforced, flexible liners made from a ethylene interpolymer alloy (EIA). It is available in high strength, chemical resistant XR-5 grade for maximum resistance to high temperatures and broad chemical classes, including acids, oils, and methane. The XR-3 grade is utilized for moderate chemical resistant requirements, such as storm-water and domestic wastewater.



Common Applications

- Industrial Waste
- Fuel Containment
- Floating Covers and Baffles
- Domestic Wastewater
- Potable Water

Material Advantages

- Stability-Low thermal coefficient of expansion
- 20 year warranty



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XR 5 REINFORCED GEOMEMBRANES

Property/Test	8130	8138
Base Fabric Type	Polyester	Polyester
Base Fabric Weight (nominal)	6.5 oz/yd ²	6.5 oz/yd ²
Thickness	30.0 mils min	40.0 mils nominal
ASTM D 751		
Weight	30.0 ± 2 oz/yd ²	38.0 ± 2 oz/yd ²
ASTM D 751		
Tear Strength	35/35 lb min	35/35 lb, min.
ASTM D 4533, Trapezoid Tear		
Breaking Yield Strength	550/550 lb min	550/550 lb, min.
ASTM D 751, Grab Tensile, Procedure A		
Low Temperature	Pass @ -30 ° F	Pass @ -30 ° F
ASTM D 2136, 4 hr - 1/8" mandrel		
Dimensional Stability	1.5% max each direction	1.5% max each direction
ASTM D 1204, 212° F - 1 hr		
Adhesion - Heat Sealed Seam	35 lb/2 in min.	35 lb/2 in min.
ASTM D 751, Dielectric Weld		
Dead Load - Seam Shear Strength	2 in seam, 1 in strip 210 lb @ 70° F 105 lb @ 160° F	2 in seam, 4 hr, 1 in strip 210 lb @ 70° F 105 lb @ 160° F
ASTM D 751, 4-hour test		
Bursting Strength	650 lb min 800 lb typical	650 lb min. 800 lb typical
ASTM D 751, Ball Tip		
Hydrostatic Resistance	800 psi min	800 psi min.
ASTM D 751, Method A		
Blocking Resistance	# 2 Rating max	# 2 Rating max
ASTM D 751, 180° F/82° C		
Adhesion - Ply	15 lb/in min or Film Tearing Bond	15 lb/in min. or Film Tearing Bond
ASTM D 413, Type A		
Bonded Seam Strength	550 lb min	550 lb, min.
ASTM D 751 Grab test Method, Procedure A		
Abrasion Resistance	2000 cycles (min.) before fabric exposure 50 mg/100 cycles max weight loss	2000 cycles (min.) before fabric expo- sure 50 mg/100 cycles max weight loss
ASTM D 3389, H-18 Wheel, 1000 g Load		
Weathering Resistance	8000 hrs (min) - No appreciable changes or stiffening or cracking of coating	8000 hrs (min) - No appreciable changes or stiffening or cracking of coating
ASTM G 23 (Carbon-Arc)		
Water Absorption	0.025 kg/m ² max @ 70° F/21° C 0.14 kg/m ² max @ 212° F/100° C	0.025 kg/m ² max @ 70° F/21° C 0.14 kg/m ² max @ 212° F/100° C
ASTM D 471, Section 12, 7 days		
Wicking	1/8 in max	1/8 in max.
ASTM D 751		
Puncture Resistance	250 lb min	250 lb min.
ASTM D 4833		
Coefficient of Thermal Expansion/Contraction	8 x 10 ⁻⁶ in/in/°F max	8 x 10 ⁻⁶ in/in/°F max.
ASTM D 696		



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