

TITAN HPR 40-5 SERIES

40mil REINFORCED GEOMEMBRANE LINER



HPR geomembranes are the strongest, most durable geomembranes in use today. They are chemically resistant to acids and oils and are specifically engineered to provide protection against a wide range of climates. HPR products are a reinforced woven synthetic fabric made from an ethylene interpolymer alloy (EIA). Whether used in very hot or extremely cold temperatures, HPR geomembranes retain their flexibility and perform better than any other geomembrane available.

(High Performance Reinforced Geomembrane)

Base Fabric Type: Polyester

TESTED PROPERTY	TEST METHOD	VALUE ENGLISH (METRIC)
Basic Fabric Weight (nominal)	ASTM D 3776	6.5 oz/yd ² (220 g/m ²)
Thickness	ASTM D 751	40 mil (1.0mm)
Weight	ASTM D 751	38.0 ± 2 oz/yd ² (1288 ± 70 g/m ²)
Tear Strength (Trapezoid Tear)	ASTM D 4533	35/35 lbs (155/155 N) min
Breaking Yield Strength (Grab Tensile)	ASTM D 751	550/550 lbs (2450/2450 N) min
Low Temperature (4hr – 1/8" mandrel)	ASTM D 2136	Pass @ -30°F (-35°C)
Dimensional Stability (212°F – 1 hr)	ASTM D 1204	1.5% max each direction
Adhesion Heat Sealed Seam (Dielectric Weld)	ASTM D 751	35lb _f / 2in (150 N/5 cm) min
Dead Load – Seam Shear Strength	ASTM D 751	2" (5 cm) seam, 4hr, 1" (2.5 cm) strip 210 lb (934 N) @ 70°F (21°C) 105 lb (467 N) @ 160°F (70°C)
Bursting Strength (Ball Tip)	ASTM D 751	650 lb (2890 N) min 800 lb (3560 N) typical
Hydrostatic Resistance (Method A)	ASTM D 751	800 psi (540 N/cm ²) min
Blocking Resistance (180°F/82°C)	ASTM D 751	#2 Rating Max
Abrasion – Ply	ASTM D 413	15 lbs/in (65 N/2.5cm) min or Film Tearing Bond
Bonded Seam Strength (as modified by NSF 54)	ASTM D 751	550 lb (2450 N) min
Abrasion Resistance(H-18 Wheel 1000g load)	ASTM D 3389	2000 cycles (min) before fabric exposure 50 mg/100 cycles max weight loss
Weathering Resistance (Carbon-arc)	ASTM G-23	8000 hrs(min) – No appreciable changes or stiffening or cracking of coating
Water Absorption (Section 12, 7 days)	ASTM D 471	0.025 kg/m ² @ 70°F/21°C 0.14 kg/m ² max @ 212°F/100°C
Wicking	ASTM D 751	1/8" (0.3 cm) max
Puncture Resistance	ASTM D 4833	250 lb (1112 N) min
Coefficient of Thermal Expansion/ Contraction	ASTM D 696	8 x 10 ⁻⁶ in/in °F (1.4 x 10 ⁻⁵ cm/cm/°C) max

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(Rev. March, 2018)

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