

Geonet Data Sheet

Characterisitics	Value	Unit	Standard
Geonet Drainage			
Polymer	High - density polyethylene (HDPE)		
Thickness at 20 kPa / 200 kPa	6,2 / 5,5	mm	EN 964
Thickness reduction due to creeping (1)	<3	%	EN 1897
Mass per unit area	740	g/m ²	EN 965
Peak tensile strength MD / CD	8,2 / 2,5	kN/m	ISO 10319
Elongation at break, MD / CD	20 / 90	%	ISO 10319
Crushing Resistance	>1.000	kPa	ASTM 1621
Flow capacity in their plane, MD		l/m·s	ISO 12958(2)
i=1,0	0 = 20 kPa	2,75	
	0 = 50 kPa	2,42	
	0 = 200 kPa	1,95	
	0 = 500 kPa	1,10	
i=0,1	0 = 20 kPa	0,63	
	0 = 50 kPa	0,53	
	0 = 200 kPa	0,38	
	0 = 500 kPa	0,23	
(1) Thickness reduction after 1.000 h under 200 kPa normal stress.			
(2) ISO 12958 - 1999 with 380*300 mm specimens and rigid plates (hard - hard).			
i : Hydraulic gradienty			
MD : Machine Direction (Longitudinal)			
CD : Cross Machine Direction (Transversal)			

Specification of High Density PolyEthylene (HDPE) GeoMembrane

Property	Test Method	Nominal Values				
Thickness, mm	ASTM D 751/1593/5199	1.0	1.5	2.0	2.5	3.0
Density, g/cc	ASTM D 792/1505	0.94	0.94	0.94	0.94	0.94
Strength at Break, N/mm	ASTM D 6693, Type IV	34	52	69	86	103
Strength at Yield, N/mm	ASTM D 6693, Type IV	16	25	33	41	50
Elongation at Break, %	ASTM D 6693, Type IV	750	800	800	800	800
Elongation at Yield, %	ASTM D 6693, Type IV	15	15	15	15	15
Tear Resistance, N	ASTM D 1004	146	222	293	369	445
Puncture Resistance, N	FTMS 101, Method 2065	267	400	533	667	800
Carbon Black Content, %	ASTM D 1603	2-3	2-3	2-3	2-3	2-3
Carbon Black Dispersion	ASTM D 3015	A1/A2	A1/A2	A1/A2	A1/A2	A1/A2
Dimensional Stability, % (each direction)	ASTM D 1204, 100°C 1hr	±1	±1	±1	±1	±1
Environmental Stress						
Crack Resistance, hr	ASTM D 1693, Cond. B	>2000	>2000	>2000	>2000	>2000
Low Temperature Brittleness, °C	ASTM D 746, Cond. B	<-84	<-84	<-84	<-84	<-84
Oxidative Induction Time, minutes	ASTM D 3895, 200°C Pure O ₂ , 1 atm	100	100	100	100	100
Ozone Resistance	ASTM D 1149, 7 days 100ppm	No Cracks	No Cracks	No Cracks	No Cracks	No Cracks
Water Absorption, % wt. change	ASTM D 570	<0.01	<0.01	<0.01	<0.01	<0.01
Moisture Vapour Transmission, g/m ²	ASTM E 96	<0.001	<0.001	<0.001	<0.001	<0.001
Melt Flow Index, g/10 minutes	ASTM D 1238, Cond. 190/2.16	≤1.0	≤1.0	≤1.0	≤1.0	≤1.0

Geosynthetic Clay Liners

TECHNICAL DATA SHEET

Tensile Properties	Unit	Value
Hydraulic Conductivity	Cm/sec	5 x 10-9
Bentonite	Kg /sqm	3.60 (min)
Bentonite Swell Index	ml/2Kg	24
Grab Strength	N/m	600
GCL Index Flux	M3/m2/sec	1 x 10-8
Roll Width(1)	M	5.80
Roll Length(2)	M	30

(1) (2) As per customer requirement

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