GeoTrans Technology
Innovative Geosynthetics to Global Needs

G-Meb® LLDPE Series LLDPE Geomembrane-Smooth

G-Meb® LLDPE Series LLDPE geomembrane, the full name of which is "linear low-density polyethylene geomembrane", is a plastic sheet and roll made from special linear low-density polyethylene resin through blow molding and calendering techniques.
LLD Series has excellent physical and mechanical properties, high tear resistance, strong deformation adaptability, and extremely high unidirectional and multi-directional extensibility and flexibility.
The advantages are: it has a very high anti-seepage coefficient, good heat resistance and cold resistance, excellent chemical stability, and resistance to acids and alkalis. It is highly suitable for projects with uneven settlement or large local settlement.
LLD Series is widely used in urban domestic waste landfills, sewage treatment plants, mine heap leaching sites, culverts, canals and other geological environments with complex shapes and the need for deformation.

Properties (Standard)	Value Type	Unit	LLD0.5	LLD0.75	LLD1.0	LLD1.25	LLD1.5	LLD2.0	LLD2.5	LLD3.0
Mechanical Properties										
Thickness	Mav	mm	0.50	0.75	1.00	1.25	1.50	2.00	2.50	3.00
lowest individual of 10 values [D 5199]	Tolerance	%	-10	-10	-10	-10	-10	-10	-10	-10
Formulated Density [D 1505/D 792]	Mav	g/cc	0.939	0.939	0.939	0.939	0.939	0.939	0.939	0.939
Tensile Properties (1)										
● break strength [D 6693 Type IV]	Mav	kN/m	13	20	27	33	40	53	66	80
●break elongation [D 6693 Type IV]		%	800	800	800	800	800	800	800	800
2% Modulus [D 5323]	Max	N/mm	210	315	420	520	630	840	1,050	1,260
Tear Resistance [D 1004]	Mav	N	50	70	100	120	150	200	250	300
Puncture Resistance [D 4833]	Mav	N	120	190	250	310	370	500	620	750
Axi-Symmetric Break Resistance Strain [D 5617]	Mav	%	30	30	30	30	30	30	30	30
Carbon Black Content (range) [D 4218 (2)]	Mav	%	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0
Oxidative Induction Time (OIT) (3)										
(a) Standard OIT [D 8177]	Mav	min	100	100	100	100	100	100	100	100
(b) High Pressure OIT[D 5885]		min	400	400	400	400	400	400	400	400
Oven Aging at 85°C [D 5721] (4)										
(a) Standard OIT - % retained after 90 days [D 8117]	Mav	%	35	35	35	35	35	35	35	35
(b) High Pressure OIT- % retained after 90 days [D5885]		%	60	60	60	60	60	60	60	60
UV Resistance [D 7238] (5) High Pressure OIT retained after 1600 hrs (6) [D 5885]	Mav	%	35	35	35	35	35	35	35	35
Physical Identification Properties										
Thickness [D5199]	T	mm	0.5	0.75	1.00	1.25	1.50	2.00	2.50	3.00
Roll Width	T	m(<=)	7	7	7	7	7	5.9	5.9	5.9
Roll Length	T	m	75	60	50	45	40	35	30	25
Approx Load Q'ty / 40' HQ		Rolls(>=)	90	74	66	60	55	55	52	50
		Sq. m	47,250	31,080	23,100	18,900	15,400	11,358	9,204	7,375

(1) Machine direction (MD) and cross machine direction (XMD) average values is on the basis of 5 test specimens each direction.
• Break elongation is calculated using a gage length of 50 mm at 50 mm/min.
(2) D 1603 (tube furnace) or D 6370 (TGA) are acceptable if an appropriate correlation to D 4218 (muffle furnace) can be established.
(3) Can select either one of the OIT methods listed to evaluate the antioxidant content in the geomembrane.
(4) It is also recommended to evaluate samples at 30 and 60 days to compare with the 90 day response.
(5) The condition of the test is 20 hr. UV cycle at 75°C followed by 4 hr. condensation at 60°C.
(6) UV resistance is based on percent retained value regardless of the original HP-OIT value.

Dalian GeoTrans Technology Co,. Ltd.

Add：No.8888-1 Southeast Industrial Zone, Youjia,Ganjingzi District, Dalian, China P.C.: 116039

Tel: +86-(0)411 86692019 Fax: +86-(0)411 86692019

Website: www.geotranstechnology.com E-Mail: enquiry@geo-textile.com