

G-Meb® HDPE Series HDPE geomembrane, full name is "high-density polyethylene geomembrane", is a plastic sheet and roll made from high-density polyethylene resin through blow molding and calendering techniques.

HD Series features excellent physical and mechanical properties, high tear resistance, strong deformation adaptability, puncture resistance, anti-aging, UV resistance, low cost and easy construction.

The advantages are: it has a very high anti-seepage coefficient, good heat resistance and cold resistance, excellent chemical stability, and is resistant to acids and alkalis. It has a very high tensile strength and can meet the needs of high-standard engineering projects.

HD Series is widely used in anti-seepage projects such as municipal solid waste landfills, sewage treatment plants, artificial lakes, and tailings treatment.

Properties (Standard)	Value Type	Unit	HD0.5	HD0.75	HD1.0	HD1.25	HD1.5	HD2.0	HD2.5	HD3.0
Mechanical Properties										
Thickness	Mav	mm	0.5	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	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Tensile Properties (1)	Mav									
• yield strength [D 6693 Type IV]		kN/m	7.5	11	15	18	22	29	37	44
• yield elongation [D 6693 Type IV]		%	12	12	12	12	12	12	12	12
• break strength [D 6693 Type IV]		kN/m	13.5	20	27	33	40	53	67	80
•break elongation [D 6693 Type IV]		%	700	700	700	700	700	700	700	700
Tear Resistance [D 1004]	Mav	N	62.5	93	125	156	187	249	311	374
Puncture Resistance [D 4833]	Mav	N	160	240	320	400	480	640	800	960
Stress Crack Resistance (2) [D 5397]	Mav	hrs	500	500	500	500	500	500	500	500
Carbon Black Content (range) [D 4218 (3)]	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) (4)										
(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] (5)										
(a) Standard OIT - % retained after 90 days [D 8117]	Mav	%	55	55	55	55	55	55	55	55
(b) High Pressure OIT- % retained after 90 days [D5885]		%	80	80	80	80	80	80	80	80
UV Resistance [D 7238] (6)	Mav	%	50	50	50	50	50	50	50	50
High Pressure OIT retained after 1600 hrs (7) [D 5885]										
Physical Identification Properties										
Thickness [D 5199]	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

Yield elongation is calculated using a gage length of 33 mm

Break elongation is calculated using a gage length of 50 mm

(2) The yield stress used to calculate the applied load for the SP-NCTL test is mean value via MQC testing.

(3) D 1603 (tube furnace) or D 6370 (TGA) are acceptable if an appropriate correlation to D 4218 (muffle furnace) can be established.

(4) Can select either one of the OIT methods listed to evaluate the antioxidant content in the geomembrane.

(5) It is also recommended to evaluate samples at 30 and 60 days to compare with the 90 day response.

(6) The condition of the test should be 20 hr. UV cycle at 75°C followed by 4 hr. condensation at 60°C.

(7) UV resistance is based on percent retained value regardless of the original HP-OIT value.

Above the values listed are the minimum average values, the data was obtained from in-house test laboratory, National test institutes and international test institutes. GeoTrans keeps the right of data changes and the final explanation right. Liability Exclusion: This publication should not be construed as engineering advice. While information contained here is accurate to the best of our knowledge, GeoTrans does not warrant its accuracy or completeness. The only warranty made by GeoTrans for its products is set forth in our Product Test Report accompanies our shipment of the products, or such other written warranty as may be agreed by GeoTrans and customer. GeoTrans specifically disclaims all other warranties express or implied, including without agreed by GeoTrans and customer. GeoTrans specifically disclaims all other warranties, express or implied, including without limitation, warranties of merchantability or fitness for a particular purpose, or rising from provision of samples, a course of dealing or usage of trade.



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

