



# GAYATRI POLYMERS & GEOSYNTHETICS

AN ISO 9001:2008 CERTIFIED COMPANY

## SPECIFICATION OF HIGH DENSITY POLYETHYLENE (HDPE) GEOMEMBRANE

Property	Test Method	Nominal Values					
		GS	GS	GS	GS	GS	GS
		20	30	40	60	80	100
Thickness, mm	ASTM D 751/1593/5199	0.50	0.75	1.0	1.5	2.0	2.5
Density, g/cc	ASTM D 792/1505	0.94	0.94	0.94	0.94	0.94	0.94
Strength at Break, N/mm	ASTM D 6693, Type IV	13	20	25	42	57	71
Strength at Yield, N/mm	ASTM D 6693, Type IV	8	11	13	23	30	37
Elongation at Break, %	ASTM D 6693, Type IV	700	700	700	700	700	700
Elongation at Yield, %	ASTM D 6693, Type IV	13	13	13	13	13	13
Tear Resistance, N	ASTM D 1004	73	95	120	175	257	320
Puncture Resistance, N	FTMS 101, Method 2065	157	240	267	400	533	667
Carbon Black Content, %	ASTM D 1603	2-3	2-3	2-3	2-3	2-3	2-3
Carbon Black Dispersion	ASTM D 3015	A1/A 2	A1/A 2	A1/A 2	A1/A 2	A1/A 2	A1/A 2
Dimensional Stability, % (each direction)	ASTM D 1204, 100°C 1hr	±1	±1	±1	±1	±1	±1
Environmental Stress Crack Resistance, hr	ASTM D 1693, Cond. B	>2000	>2000	>2000	>2000	>2000	>2000
Low Temperature Brittleness, °C	ASTM D 746, Cond. B	<-84	<-84	<-84	<-84	<-84	<-84
Oxidative Induction Time, minutes	ASTM D 3895, 200°C Pure O <sub>2</sub> , 1 atm	100	100	100	100	100	100
Ozone Resistance	ASTM D 1149, 7 days 100ppm	No Cracks	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	<0.01

28, UNIQUE TRADE CENTRE, OPP: HOTEL P.M REGENCY, SAYAJIGUNJ-390005  
VADODARA, GUJARAT.INDIA. TEL: 91 265 6539569 FAX: 91 265 6625569

[www.gayatrigeosynthetics.com](http://www.gayatrigeosynthetics.com), e.mail: sales@gayatrigeosynthetics.com



## GAYATRI POLYMERS & GEOSYNTHETICS

**AN ISO 9001:2008 CERTIFIED COMPANY**

Moisture Vapour Transmission, g/m <sup>2</sup>	ASTM E 96	<0.001	<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	<=1.0

28, UNIQUE TRADE CENTRE, OPP: HOTEL P.M REGENCY, SAYAJIGUNJ-390005  
VADODARA, GUJARAT.INDIA. TEL: 91 265 6539569 FAX: 91 265 6625569  
[www.gayatrigeosynthetics.com](http://www.gayatrigeosynthetics.com), e.mail: sales@gayatrigeosynthetics.com