



# LLDPE Geomembrane : Black Smooth

Product Specifications / Data Sheet

**GPF's LLDPE Smooth Geomembrane** is a high quality, black coloured product that is manufactured in our state of the art Saudi Arabian facility. GPF uses 97.5% pure linear low density polyethylene virgin polymer and 2.5% carbon black with trace amounts of antioxidants and heat stabilizers.

**GPF's LLDPE Smooth Textured Geomembrane** is flexible with high elongation properties making it highly used in applications with potential subgrade movement.

**GPF's LLDPE Smooth Textured Geomembrane** exceeds the industry standard GRI GM17, as regularly tested in our full laboratory integrated into our factory.

Test Property	Unit	Test Method	Minimum Average Value (Per GRI GM17)				
Thickness <sup>(1)</sup>	mils	ASTM D 5199	30	40	60	80	100
Lowest individual (-10%)	mm		0.75	1.0	1.5	2.0	2.5
Density	g/cm <sup>3</sup>	ASTM D 792	≥ 0.939	≥ 0.939	≥ 0.939	≥ 0.939	≥ 0.939
Strength at Break (Both Directions)	lb/in	ASTM D6693 Type IV Dumbbell, 2in/min	114	152	228	304	380
Elongation at Break (Both Directions)	%	Gage length 2in for Break Elongation	800	800	800	800	800
Tear Resistance	lb.	ASTM D 1004	16	22	33	44	55
Puncture Resistance	lb.	ASTM D 4833	42	56	84	112	140
Carbon Black Content	%	ASTM D 1603	2.0% - 3.0%				
Carbon Black Dispersion	Category	ASTM D 5596	Note (2)				
Oxidative Induction Time (Standard; S-OIT)	min	ASTM D 3895	100	100	100	100	100
Oxidative Induction Time (High Pressure; HP-OIT)	min	ASTM D 5885	400	400	400	400	400
UV Resistance -HP OIT (% retained after 1600 hr)	%	GM11 ASTM D5885	> 35	> 35	> 35	> 35	> 35

## Roll dimensions

### Size A)

Roll Width (approx.) <sup>(3)</sup>	ft	-----	23	23	23	23	23
Roll Length (approx.)	ft	-----	1000	750	500	375	300
Roll Area (approx.)	ft <sup>2</sup>	-----	23,000	17,250	11,500	8,625	6,900

### Size B)

Roll Width (approx.) <sup>(3)</sup>	ft	-----	26	26	26	26	26
Roll Length (approx.)	ft	-----	880	660	440	330	265
Roll Area (approx.)	ft <sup>2</sup>	-----	22,880	17,160	11,440	8,580	6,890

#### Notes:

(1) One (1) measurement taken every 1 meter along roll width - 10% lowest individual of 10 values.

(2) Carbon black dispersion (only near spherical agglomerates) for 10 different views: 9 in Categories 1 or 2 and 1 in Category 3.

(3) Roll Width and Length have a tolerance of ± 1%.

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