



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 ⁽¹⁾	mm	ASTM D 5199	0.75	1.0	1.5	2.0	2.5
Lowest individual (-10%)	mils		30	40	60	80	100
Density	g/cm ³	ASTM D 792	≥ 0.939	≥ 0.939	≥ 0.939	≥ 0.939	≥ 0.939
Strength at Break (Both Directions)	N/mm	ASTM D6693 Type IV Dumbbell, 50mm/min	20	27	40	53	66
Elongation at Break (Both Directions)	%	Gage length 50mm for Break Elongation	800	800	800	800	800
Tear Resistance	N	ASTM D 1004	70	100	150	200	250
Puncture Resistance	N	ASTM D 4833	190	250	370	500	620
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.) ⁽³⁾	m	-----	7	7	7	7	7
Roll Length (approx.)	m	-----	305	230	150	115	90
Roll Area (approx.)	m ²	-----	2,135	1,610	1,050	805	630

Size B)

Roll Width (approx.) ⁽³⁾	m	-----	8	8	8	8	8
Roll Length (approx.)	m	-----	270	200	135	100	80
Roll Area (approx.)	m ²	-----	2,160	1,600	1,080	800	640

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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