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LM Geomembrane

LLDPE Smooth Geomembrane

LLDPE Smooth Geomembrane is a black, high quality, linear density polyethylene (LLDPE) geomembrane produced from specially formulated polyethylene resin with outstanding flexibility. The polyethylene resin is designed specifically for flexible geomembrane applications. Its high uniaxial and multiaxial elongation characteristics make it very suitable for applications where differential or localised subgrade settlements are expected such as landfill closure cappings, leach pads, or any application where elongation or puncture resistance is critical. LLDPE contains approximately 97.5% polyethylene, 2.5% carbon black, trace amounts of antioxidants and heat stabilisers, and is suitable for exposed applications. These product specifications meet or exceed TRI-GM 17.

This product is double sided smooth.

Test Property	Unit	Test Method	Value (*)
Thickness (1) Lowest individual reading	mm	ASTM D-5199	1 -10%
Density	g/cm^3	ASTM D-792	≤ 0.939
Strength at Break (Both directions)	N/mm	ASTM D-638/6693 Type IV	27
Elongation at Break (Both directions)	%	50mm/min lo = 50mm For Break	800
Tear Resistance	N	ASTM D-1004	100
Puncture Resistance	N	ASTM D-4833	250
Carbon Black Content	%	ASTM D-1603	2 - 3
Carbon Black Dispersion (2)	Category	ASTM D-5596	Note 2
Oxidation Induction Time (OIT)	min.	ASTM D-3895	≥ 100
High Pressure Oxidative Induction Time (HPOIT)	min	ASTM D-5885	≥ 400
Oven Aging Standard OIT % retained after 90 days	%	ASTM D-5721/D3895 @ 85°C	≥ 35
UV Resistance HPOIT (3) % retained after 1,600 hours	%	ASTM D 7238 ASTM D 5885	≥ 35
Roll Width (approx.) (4)	m	----	2.9 - 5.8
Roll Length (approx.) (4)	m	----	100
Surface	----	----	Double Sided Smooth

(*) - All values unless stated otherwise are nominal values
(1) - Tolerance ±10% of the lowest individual reading
(2) - Dispersion only applies to near spherical agglomerates. 9 of 10 views shall be category 1 or 2. No more than 1 view from category 3
(3) - Test conditions: 20 hours UV cycle at 75°C followed by 4 hours condensation at 60°C
(4) - Roll width and lengths have a tolerance of ±1%

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