

TECHNICAL DATASHEET

LLDPE (2.55)

PRODUCT DESCRIPTION

LLDPE (smooth) is a linear low-density polyethylene membrane, for use in accordance with harmonised standards:

- BS EN 13361: Characteristics required for use in the construction of reservoirs and dams.
- BS EN 13362: Characteristics required for use in the construction of canals.
- BS EN 13491: Characteristics required for use in the construction of tunnels underground structures.
- BS EN 13492: Characteristics required for use in the construction of liquid waste disposal sites, transfer stations, or secondary containment.
- BS EN 13493: Characteristics required for use in the construction of solid waste storage and disposal sites
- BS EN 15382: Characteristics required for use in the construction of transportation infrastructure.



The material is smooth both sides and meets GRI GM17

CHARACTERISTICS	TEST METHOD	UNITS	THICKNESS	
			0.75mm	1.0mm
MATERIAL PROPERTIES				
MATERIAL	DSC ANALYSIS		LINEAR LOW DENSITY POLYETHYLENE (LLDPE)	
WIDTH		m	2.55	2.55
LENGTH		m	50	33
GRI-GM17 PROPERTIES				
THICKNESS (min. ave.) lowest individual of 10 values	ASTM D 5199	mm	0.75 (-10%)	1.0 (-10%)
DENSITY (MAX)	ASTM D 1505	g/cm ³	0.939	
TENSILE PROPERTIES (min. ave.)	ASTM D 6693 TYPE IV	kN/m	20.00	30.00
BREAK STRENGTH				
BREAK ELONGATION		%	800	800
2% MODULUS (max)	ASTM D 5323	kN/m	370	420
TEAR RESISTANCE (min. ave.)	ASTM D 1004	N	70	100
PUNCTURE RESISTANCE (min.ave.)	ASTM D 4833	N	190	350
AXI-SYMMETRIC BREAK RESISTANCE STRAIN (min)	ASTM D 5617	%	30	30
CARBON BLACK CONTENT	ASTM D 4218/6370	%	2-3	2-3
CARBON BLACK DISPERSION	ASTM D 5596	CATEGORY	min. 9 in categories 1 or 2 and max. 1 in category 3	
OXIDATIVE INDUCTION TIME (OIT) (min. ave.)				
STANDARD OIT	ASTM D 3895	min	100	100
OVEN AGING AT 85°C	ASTM D 5721			
STANDARD OIT (mi. ave.) % retained after 90 days	ASTM D 3895	%	35	35
UV RESISTANCE				
HIGH PRESSURE OIT (min.ave.) % RETAINED 1600 HOURS	ASTM D 5885	%	35	35

1. TCS Geotechnics is a trading name of Technical Civils Solutions Ltd.
2. TCS Geotechnics Ltd reserves the right to alter product specifications without prior notice.
3. It is the responsibility of all users to satisfy themselves that the above data is current.
4. The above figures are average values obtained from testing to current EN ISO standards.
5. TCS Ltd cannot accept responsibility for the performance of these products as the conditions of use are beyond our control.
6. Installation details are available on request.

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