

PP GEOMEMBRANE

PRODUCT DESCRIPTION

ProFlex is a propylene/ethylene copolymer geomembrane produced from a resin formulation designed to provide quality geomembrane with excellent flexibility, and improved elasticity and resistance to puncture. These properties assure maximum multiaxial elongation to accommodate differential settlement. ProFlex is ideal for most geomembrane applications and major benefits to installation are provided by lower coefficient of thermal expansion and a wide temperature-welding window.



CHARACTERISTICS	UNIT	TEST METHOD	VALUES(*)		
THICKNESS (a)	mm	DIN EN ISO 9863-1	1.0	1.5	2.0
DENSITY	g/cm ³	DIN EN ISO 1183-1/A	0.89	0.89	0.89
TENSILE PROPERTIES (each direction) • STRESS AT BREAK • ELONGATION AT BREAK	MPa %	DIN EN ISO 527-3 (TYPE 5; 100mm /min; lo = 50mm)	19 (16) 900 (700)	19 (16) 900 (700)	19 (16) 900 (700)
TEAR RESISTANCE	N	DIN ISO 34-1/B (a)	60	90	120
PUNCTURE RESISTANCE	N	DIN EN ISO 12236	1,000	1,500	2,000
CARBON BLACK CONTENT	%	ASTM D 4218	3.0	3.0	3.0
CARBON BLACK DISPERSION	CATEGORY	ASTM D 5596	1/2 (b)	1/2 (b)	1/2 (b)
DIMENSIONAL STABILITY (EACH DIRECTION)	%	DIN 53377 (100°C/1h)	±2	±2	±2
MELT FLOW INDEX (c)	g/10 min	DIN EN ISO 1133 (190°C / 5.0 kg) (190°C / 2.16 kg)	<3.0 <1.0	<3.0 <1.0	<3.0 <1.0
REFERENCE PROPERTY					
MULTIAXIAL ELONGATION AT BREAK	%	SIMILAR TO ASTM D 5617; Ø = 500mm	120	120	120
LOW TEMPERATURE BRITTLINESS	°C	ASTM D 2136	-40	-40	-40
ROLL WIDTH (APPROX.) (d)	m	---	7.0		
SURFACE	---	---	DOUBLE-SIDED SMOOTH		

- NOTES:
- (*): All values - unless otherwise noted - are nominal values. Values in brackets are minimum values within the 95% confidence interval.
 - (a): Tolerance ± 10% - Special thickness available upon request.
 - (b): 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.
 - (c): Standard test conditions: 190°C / 5.0 kg.
 - (d): Roll widths and lengths have a tolerance of ± 1%.

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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