Technical Data Sheet
PP Polypropylene Geomembrane (Flexline)

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

Tested Properties	Unit	Test Method	Values (*)		
			1.00mm	1.50mm	2.00mm
Thickness (a)	mm	DIN EN ISO 9863-1	1.00	1.50	2.00
Density	g/cm³	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, 100 mm/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 (100ºC/1h)	±2	±2	±2
Melt Flow Index (c)	g/10 min	DIN EN ISO 1133 (190ºC / 5.0kg) (190ºC / 2.16kg)	 ≤3.0 ≤1.0	 ≤3.0 ≤1.0	 ≤3.0 ≤1.0
Reference Property	**Unit**	**Test Method**	**Nominal Value**		
Multiaxial Elongation at Break	%	ASTM D 5617	>120	>120	>120
Low Temperature Brittleness	ºC	ASTM D 2136 (2)	-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 with 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: 190ºC / 5.0kg.
(d): Roll widths and lengths have a tolerance of ± 1%.

WLS reserves the right, as technology and know-how progress, to modify without warning the composition and conditions of use of its materials, and subsequently their price. As a result, orders shall only be accepted on the basis of the terms and technical specifications applicable at the time of receip

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