Technical Data Sheet

Robalon® S

PE-UHMW / PE 1000

Typical characteristics

- UV-resistant
- Chemical resistant

Typical industries

- Drinking & Waste Water Technology
- Mechanical Engineering Industry
- Agriculture Industry
- Alpine Industry

	Test method	Unit	Guideline value
General properties			
Density	DIN EN ISO 1183-1	g / cm^3	0,93
Water absorption	DIN EN ISO 62	%	<0,01
Flammability (Thickness 3 mm / 6 mm)	UL 94		HB/HB
Molecular weight		g/mol	9,20 * 10^6
Color			black
Mechanical properties			
Yield stress	DIN EN ISO 527	MPa	18
Elongation at break	DIN EN ISO 527	%	>200
Tensile modulus of elasticity	DIN EN ISO 527	MPa	550
Notched impact strength	DIN EN ISO 179/1eA	kJ / m^2	>90
Shore hardness	DIN EN ISO 868 / 15 sec	scale D	63
Compression - compression set	23°C, 2N/mm^2, 1h	%	~2
Compression - compression set	80°C, 10N/mm^2, 56h	%	~20
Thermal properties			
Melting temperature	DIN EN ISO 3146	°C	135
Thermal conductivity	DIN EN ISO 8302	W / (m * K)	0,41
Thermal capacity	DIN 51005	kJ / (kg * K)	1,84
Coefficient of linear thermal expansion	DIN 53752	10^{-6} / K	200
Service temperature, long term	Average	°C	-200 ... 80

	Test method	Unit	Guideline value
Service temperature, short term (max.)	Average	°C	110
Electrical properties			
Volume resistivity	DIN EN 62631-3-1	Ω * cm	10^{10}
Surface resistivity	DIN EN 62631-3-2	Ω	10^{10}
Comparative tracking index	IEC 60112		600

The data given are standard values which are based on our experience & previous technical studies. These values are influenced by the design, processing conditions and environmental influences out of our control. The sustainability of the material for a given application is the responsibility of the user. Typing and printing errors reserved.