

Technical Data Sheet

PE1000 Polyethylene

Product characteristics

- High abrasion and wear resistance
- Low coefficient of friction
- High impact strength

Product applications

- Beverage and food industry
- Mechanical engineering
- Packaging 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
Molecular weight	-	10 ⁶ g/mol	~ 9
MECHANICAL PROPERTIES			
Yield stress	DIN EN ISO 527	MPa	20
Elongation at break	DIN EN ISO 527	%	>200
Tensile modulus of elasticity	DIN EN ISO 527	MPa	680
Notched impact strength	DIN EN ISO 179	kJ / m ²	no break
Shore hardness	DIN EN ISO 868	scale D	63
THERMAL PROPERTIES			
Melting temperature	ISO 11357-3	°C	135
Thermal conductivity	DIN 52612-1	W / (m * K)	0,40
Thermal capacity	DIN 52612	kJ / (kg * K)	1,90
Coefficient of linear thermal expansion	DIN 53752	10 ⁻⁶ / K	150...230
Service temperature, long term	Average	°C	-250...80
Service temperature, short term (max.)	Average	°C	130
Vicat softening temperature	DIN EN ISO 306, Vicat B	°C	80
ELECTRICAL PROPERTIES			
Dielectric constant	IEC 60250		2,3
Dielectric dissipation factor (10 ⁶ Hz)	IEC 60250		0,0002
Volume resistivity	DIN EN 62631-3-1	Ω * cm	>10 ¹⁴
Surface resistivity	DIN EN 62631-3-2	Ω	>10 ¹⁴
Comparative tracking index	IEC 60112		600
Dielectric strength	IEC 60243	kV / mm	45

The data stated above are average values ascertained by statistical tests on a regular basis. They are in accordance with DIN EN 15860. The data above are provided purely for information and shall not be regarded as binding unless expressly agreed in a contract of sale.