

Poly Ethylene **PE** Technical data sheet

Physical Properties	Test	Unit	Result
Specific gravity	ISO 1183	g/cm ³	0.96
Water absorption	ISO 62	%	0.01
Maximum service temp. Upper temp. limit (no stronger mechanical stress involved)	-	°C	80
Lower temp. limit	-	°C	-50
Mechanical Properties	Test	Unit	Result
Tensile strength at yield	ISO 527	MPa	22
Elongation at yield	ISO 527	%	9
Tensile strength at break	ISO 527	MPa	-
Elongation at break	ISO 527	%	300
Impact strength	ISO 179	kJ/m ²	no break
Notch impact strength	ISO 179	kJ/m ²	19
Ball indentation / Rockwell hardness	ISO 2039-1	MPa	40
Shore-D	DIN 53505	-	64
Flexural strength	ISO 178	MPa	-
Modulus of elasticity	ISO 527	MPa	900
Thermal Properties	Test Method	Unit	Result
Vicat-softening point VST/B/50	ISO 306	°C	-
Heat deflection temperature HDT/B	ISO 75	°C	-
HDT/A	-	°C	-
Coefficient of linear thermal expansion	DIN 53752	k ⁻¹ *10 ⁻⁴	1.8 x 10 ⁻⁴
Thermal conductivity at 20°C	DIN 52612	W/(m*K)	0.38
Electrical Properties	Test Method	Unit	Result
Volume resistivity	VDE 0303	Ω x m	-
Surface resistivity	-	Ω	1014
Dielectric constant at 1 MHz	-	-	-
Dielectric loss factor at 1 MHz	DIN 53483	-	-
Dielectric strength	VDE 0303	kV/mm	47
Tracking resistance	IEC 60112	-	>600
Additional Data	Test Method	Unit	Result
Bondability	-	-	+
Food compliance	FDA	-	+
Flammability	UL 94	-	HB

