

Polyethylene HMWPE (PE500)

Technical Details

Physical	Unit	Test Method	Result
Specific gravity	g/cm ³	DIN EN ISO 1183-1	0.95
Water absorption till saturation 23°C	%	DIN EN ISO 62	<0.01
Maximum service temp. Upper temp limit - short term	°C		120
Maximum service temp. Upper temp limit - long term	°C		80
Lower temp limit	°C		-80
Mechanical	Unit	Test Method	Result
Tensile strength	MPa	DIN EN ISO 527-1	≥ 28
Elongation at yield	%	DIN EN ISO 527-1	> 650
Notch impact strength	kJ/m ²	DIN EN ISO 179-1	> 25
Ball indentation / Rockwell hardness	MPa	DIN EN ISO 2039-1	50
Shore-D		DIN EN ISO 868	63 - 65
Tensile modulus of elasticity	MPa	DIN EN ISO 527-1	1100
Thermal	Unit	Test Method	Result
Vicat-softening point VST/B/50	°C	DIN EN ISO 306	80
Coefficient of linear thermal expansion 23°C - 100°C	m/(m.K)	ISO 11359-2	20 10 ⁻⁵
Thermal conductivity at 23°C	W/mK	ISO 52612	> 0.40
Electrical	Unit	Test Method	Result
Surface resistivity	Ω	DIN EN 62631-3-1	> 10 ¹⁴
Dielectric strength	kV/mm	IEC 60243-1	50
Additional Data	Unit	Test Method	Result
Food compliance - FDA		FDA	yes
Food compliance - EU		EU 10/2011	yes
Flammability	Unit	Test Method	Result
Fire performance		UL 94	HB

All information is for guide purposes only. The data has been taken from standard test results provided by our manufacturers