

Physical properties PP med

Product characteristics:

- Good processing properties
- High chemical and corrosion resistance
- High strength and heat resistance

Product applications:

- Medical engineering

General properties	Test method	Unit	Value
Color			
Density	DIN EN ISO 1183-1	g/cm ³	0.91
Water absorption	DIN EN ISO 62	%	<0.1
Flammability (Thickness 3 mm / 6 mm)	UL 94		HB
Mechanical properties			
Yield stress	DIN EN ISO 527	MPa	28
Elongation at break	DIN EN ISO 527	%	>50
Tensile modulus of elasticity	DIN EN ISO 527	MPa	1200
Notched impact strength	DIN EN ISO 179	kJ/m ²	144
Shore hardness	DIN EN ISO 868	scala D	70
Thermal properties			
Melting temperature	ISO 11357-3	°C	160 – 165
Thermal conductivity	DIN 52612-1	W/(m*K)	0.20
Thermal capacity	DIN 52612	kJ/(kg*K)	1.70
Coefficient of linear thermal expansion	DIN 53752	10 ⁻⁶ /K	120 - 190
Service temperature, long term	Average	°C	-30...100
Service temperature, short term (max.)	Average	°C	150
Vicat softening temperature	DIN EN ISO 306, Vicat B	°C	83
Electrical properties			
Dielectric constant	IEC 60250		2.3
Dielectric dissipation factor (10 ⁶ Hz)	IEC 60250		0.00019
Volume resistivity	IEC 60093	Ω*cm	>10 ¹⁴
Surface resistivity	IEC 60093	Ω	>10 ¹²
Comparative tracking index	IEC 60112		600
Dielectric strength	IEC 60243	kV/mm	45

This table is a valuable help in the choice of a material. The data listed here fall within the normal range of products properties, but they should not be used to establish material specification limits nor used alone as the basis of design.