

# PET Rod - Technical Data Sheet



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Physical Properties	Value	Unit	Method of verification
Density	1.39	g/cm <sup>3</sup>	ISO 1183
Moisture pick-up till saturation (in normal climate 23 °C)	0.3	%	ISO 62
Water absorption till saturation (in water at 23 °C)	0.5	%	ISO 62

Mechanical properties:	Value	Unit	Method of verification
Tensile stress at yield (v = 50 mm/min)	90	N/mm <sup>2</sup>	ISO 527-2
Tensile stress at break (v = 5 mm/min)	-	N/mm <sup>2</sup>	ISO 527-2
Nominal percentage elongation at break	15	%	ISO 527-2
Tensile modulus of elasticity	3600	N/mm <sup>2</sup>	ISO 527-2
Flexural modulus of elasticity	-	N/mm <sup>2</sup>	ISO 178
Ball indentation hardness (value at 30 s)	170	N/mm <sup>2</sup>	ISO 2039-1
Rockwell hardness	M 95	-	ISO 2039-2
Charpy impact strength (23 °C)	> 50	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength - notched (23 °C)	3	kJ/m <sup>2</sup>	ISO 179/1eA

Thermal properties	Value	Unit	Method of verification
Temperature for using in air (maximum)	160	°C	Max. short term
Temperature for using in air (maximum)	115	°C	Max. lasting
Temperature for using in air (minimum)	-20	°C	-
Heat distortion temperature (HDT A process)	75	°C	ISO 75-2
Coefficient of linear expansion, at length (23-60)°C	0.6·10 <sup>-4</sup>	1/K	DIN 53752
Thermal conductivity (23 °C)	0.27	W/(K·m)	DIN 52612
Flammability according UL standard	HB	Grade	UL 94
Vicat softening temperature (VST/B/50)	-	°C	ISO 306
Melting point DSC (10 K/min)	255	°C	ISO 3146

Electrical properties	Value	Unit	Method of verification
Specific volume resistivity	1013	Ω ·m	IEC 60093
Specific surface resistivity	1014	Ω	IEC 60093
Dielectric factor (at 1 MHz)*	3.2	-	IEC 60250
Dielectric factor (at 100 Hz)*	3.4	-	IEC 60250
Dissipation factor (at 1 MHz)*	0.014	-	IEC 60250
Dissipation factor (at 100 Hz)*	0.001	-	IEC 60250
Dielectric strength K20/K20	22	kV/mm	IEC 60243-1
Comparative tracking index (CTI)	600	-	IEC 60112

\* Values do not apply to black coloured qualities