

PMMA · Technical Data Sheet

General Features

Chemical Name Poly Methyl Methacrylate	Benefits <ul style="list-style-type: none"> • Very low coefficient of friction • Very hard and not very flexible, ideal for those pieces that require a lot of rigidity • Exceptional ability to print bridges • A semi-transparent material 	Applications Lamp housings and covers, threads, gears, very rigid parts.
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Material Characteristics

Diameter	Ø 1.75mm
Meter per spool	671.14m
Weight per meter	2.98g
Tolerance	±0.02mm

Physical Properties

	Units	Typical value	Test method
Density	g/cm ³	1.19	ISO 1183
Melt Flow Index (200°C, 10kg)	ml/10 min	8.5	ISO 1133
Mold Shrinkage	%	0.2 - 0.6	ISO 294-4
Flammability (UL-94)	-	1.5mm HB	-

Mechanical Properties

	Units	Typical value	Test method
Tensile Strength at Yield (50 mm/min)	MPa	67	ISO 527
Tensile Strength at Break (50 mm/min)	MPa	67	ISO 527
Tensile Elongation (50 mm/min)	%	8	ISO 527
Flexural Strength (2 mm/min)	MPa	97	ISO 178
Flexural Modulus (2 mm/min)	GPa	2.7	ISO 178
Izod Impact Strength (23°C Notched)	KJ/m ²	2	ISO 180/1A
Izod Impact Strength (-30°C Notched)	KJ/m ²	-	ISO 180/1A
Charpy Impact Strength (23°C Notched)	KJ/m ²	2	ISO 179
Charpy Impact Strength (-30° Notched)	KJ/m ²	-	ISO 179

Thermal Properties

	Units	Typical value	Test method
VICAT Softening Temperature (1kg, 50°C/hr)	°C	107	ISO 306
VICAT Softening Temperature (5kg, 50°C/hr)	°C	99	ISO 306
Heat Distortion Temperature (1.8 MPa Unannealed)	°C	89	ISO 75/A
Heat Distortion Temperature (1.8 MPa Annealed)	°C	100	ISO 75/A
Coefficient of Linear Thermal Expansion	-	6 X 10 ⁻⁵	ISO 11359

Disclaimer:

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