

PMMA 15% impact resistant

If not stated otherwise, the given values result from tests which were realised using standardised specimen at room temperature. The given figures are indications only and therefore not binding. Please note the properties can be significantly affected by the tooling, the processing conditions as well as by the tolerances which are given due to the material.

Mechanical characteristics

	Unit	Standard	Data
Tensile Modulus (1mm/min)	MPa	ISO 527-1/-2	3000
Charpy impact strength (23°C)	kJ/m ²	ISO 179/1eU	22
Yield Stress (50mm/min)	MPa	ISO 527-1/-2	72
Nominal strain at break	%	ISO 527-1/-2	4
Ball indentation hardness	MPa	ISO 2039	180
Tensile creep modulus (1h)	MPa	ISO 899-1	2500
Tensile creep modulus (1000h)	MPa	ISO 899-1	2000

Thermal characteristics

	Unit	Standard	Data
Glass transition temperature (10°C/min)	°C	ISO 11357-1/ -2	108
Vicat softening temperature (B50)	°C	ISO 306	103
Temperature of deflection under load (1,8MPa)	°C	ISO 75-1/-2	95
Temperature of deflection under load (0,45MPa)	°C	ISO 75-1/-2	99
Coefficient of linear thermal expansion (parallel)	10 ⁻⁴ /K	DIN 53752-A	0,7

Fire characteristics

	Unit	Standard	Data
Fire Rating (depending on the components)		DIN 4102	B2
Burning behavior UL94 (1,5mm)		IEC 707	HB

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Electrical characteristics

	Unit	Standard	Data
Volume resistivity	Ohm*m	IEC 60093	$>10^{13}$
Surface resistivity	Ohm	IEC 60093	10^{13}
Relative permittivity (100Hz)		IEC 60250	3,7
Relative permittivity (1MHz)		IEC 60250	2,8
Dissipation factor (100Hz)	10^{-4}	IEC 60250	500
Dissipation factor (1MHz)	10^{-4}	IEC 60250	200
Comparative tracking index		IEC 60112	600

Physical characteristics

	Unit	Standard	Data
Water absorption, saturation value (Water at 23°C)	%	ISO 62	2
Water absorption, equilibrium v. (23°C, 50% r. h.)	%	ISO 62	0,6
Density	g/cm ³	ISO 1183	1,19

Optical characteristics

	Unit	Standard	Data
Refractive index (Procedure A)		ISO 489	1,49
Haze for transparent materials (3mm)	%	ISO 14782	< 1
Luminous transmittance (3mm)	%	ISO 13468-2	92