

TECHNICAL DATA SHEET
PMMA CAST (EN)
MATERIAL

PMMA

MODIFICATION

cast

COLOUR

clear

Property	Unit	Test method	Reference value
General and optical properties			
Density	g/cm ³	ISO 1183	1.19
Rockwell hardness	M scale	ISO 2039-2	105
Water absorption, 24 h/23 °C	%	ISO 62	0.2
Light transmission	%	ISO 13468-1	93
Refractive index		ISO 489	1.492
Mechanical properties			
Tensile strength	MPa	ISO 527-2	75
Elongation at break	%	ISO 527-2	6
Tensile modulus	MPa	ISO 527-2	3300
Flexural strength	MPa	ISO 178	125
Flexural modulus	MPa	ISO 178	3000
Impact strength Charpy, unnotched	kJ/m ²	ISO 179-1	18
Impact strength Charpy, notched	kJ/m ²	ISO 179-1	2
Thermal properties			
Vicat temperature (B 50)	°C	ISO 306	110
Heat deflection temperature (A)	°C	ISO 75-2	105
Specific heat capacity	J/(g·K)	ISO 3146-C-60 °C	2.16
Linear thermal expansion α	mm/(m·°C)	ISO 11359-2	0.07
Thermal conductivity	W/(m·K)	DIN 52612	0.19
Service temperature, continuous use	°C		80
Maximum temperature, short-term use	°C		90
Degradation temperature	°C		>280
Sheet forming temperature range	°C		140 - 190
Electrical properties			
Surface resistivity	Ω	IEC 60093	>10¹⁴
Volume resistivity	Ω·m	IEC 60093	>10¹⁵
Electrical strength	kV/mm	IEC 60243-1	10
Dielectric strength	kV/mm	IEC 60243-1	30
Dielectric dissipation factor, 50 Hz		DIN 53483-2	0.06
Dielectric dissipation factor, 1 kHz		DIN 53483-2	0.04
Dielectric dissipation factor, 1 MHz		DIN 53483-2	0.02
Relative permittivity, 50 Hz		DIN 53483-2	2.7
Relative permittivity, 1 kHz		DIN 53483-2	3.1
Relative permittivity, 1 MHz		DIN 53483-2	2.7

NOTES ON USE

These technical data are typical reference values; actual measured values are subject to production-related variations.