Physical properties PMMA XT

General properties	Test method	Unit	Value
Density	ISO 1183 DIN 53479 ASTM D 792	g/cm³	1.19
Optische Eigenschaften			
	DIN 5036	%	92
	ISO 489 DIN 53491	-	1.491
Mechanical properties			
Tensile Strength [sM] (+23°C)	ISO 527-1/-2 DIN 53455 ASTM D 638	MPa (N/mm²)	70
Tensile Strain at Break [eB] (+23°C)	DIN 53504	%	4
Tensile Modulus [Et] (+23°C)	ISO 527-1/-2 DIN53457 ASTM D 638	MPa (N/mm²)	3200
Flexural Strength	ISO 178 ASTM D 790	MPa (N/mm²)	115
Flexural Mudulus [EB]	ISO 178 ASTM D 790	MPa (N/mm²)	3300
Charpy Impact Strength (+23°C)	ISO 179/1eU	kJ/m²	17
Charpy Notched Impact Strength (+23°C)	ISO 179/1eA	kJ/m²	2
Ball pressure hardness [HR]	ISO 2039-1	MPa (N/mm²)	235
Electrical properties			
Dielectric Constant [e] (1 kHz)	DIN IEC 60250 (DIN VDE 0303-4) ASTM D 150	-	3.10
Dielectric Constant [e] (1 MHz)	DIN IEC 60250 (DIN VDE 0303-4) ASTM D 150	-	2.70
Dissipation Factor [tan d] (50 Hz)	DIN IEC 60250 (DIN VDE 0303-4) ASTM D 150	10^-4	0.06
Dissipation Factor [tan d] (1 kHz)	DIN IEC 60250 (DIN VDE 0303-4) ASTM D 150	10^-4	0.04
Dissipation Factor [tan d] (1 MHz)	DIN IEC 60250 (DIN VDE 0303-4) ASTM D 150	10^-4	0.02
Volume Resistivity	DIN IEC 60093 (DIN VDE 0303-30) ASTM D 257	Ωxm	>10^13 - >10^15
Surface Resistivity	DIN IEC 60093 (DIN VDE 0303-30) ASTM D 257	Ω	3*>10^15 - 3*>10^16

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.

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Thermal properties	Test method	Unit	Value
max. service temperature (long time)	-	°C	70
max. service temperature (short time)	-	°C	90
Vicat Softening Point	ISO 306 DIN 53460 ASTM D 1525	°C	105
	DIN 52612	W/(mxK)	0.18
heat capacity	-	J/(gxK)	1.47
Combustibility properties			
Fire behavior	DIN 4102	Klasse	B2

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