

Cast Acrylic tube + rod

Chemical designation

PMMA

Colour

Clear/translucent

Density

1.19 g/cm³

Fillers

None

Mechanical properties	parameter	value	unit	norm	comment
Modulus of elasticity	23°C	3300	MPa	D790	
Tensile strength	-40°C	110	MPa	D638	
	20°C	80			
	70°C	40			
Elongation at break		5.5	%	DIN 53455	
Flexural Strength	80x10x4 mm ³	115	MPa	D790	
Compressive Yield Stress		110	MPa		
Impact strength (Charpy)		15	kJ/m ²	DIN 53453	
Notched impact strength (IZOD)		1.6	kJ/m ²	DIN 53453	
Indentation hardness	961/30	175	MPa	DIN 53456	
Thermal properties	parameter	value	unit	norm	comment
Forming Temperature		160 -	°C		
		175			
Ignition temperature		425	°C	DIN 51794	
Heat deflection temperature under load	1.8MPa	105	°C		
	0.45MPa	113			
Service temperature	Max	80	°C		
Thermal expansion (CLTE)		0.07	mm/m°C	DIN 53752	
Specific heat		1.47	J/(g*K)		
Thermal conductivity	20°C	0.19	W/(K*m)	DIN 52612	
Electrical properties	parameter	value	unit	norm	comment
Volume resistivity		>10 ¹⁵	Ω. cm	DIN VDE 0303	
Dielectric strength	1mm	~30	kV/mm	DIN VDE 0303	
Other properties	parameter	value	unit	norm	comment
Water absorption	24h (20°C)	41	mg	DIN 53495	
Flammability	>2mm	B2		DIN 4102	

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