

# Extruded Acrylic tube + rod

## Chemical designation

PMMA

## Colour

Clear/translucent

## Density

1.19 g/cm<sup>3</sup>

## Fillers

None

<b>Mechanical properties</b>	<b>parameter</b>	<b>value</b>	<b>unit</b>	<b>norm</b>	<b>comment</b>
Modulus of elasticity (Et short term)	23°C	3300	MPa	D790	
Tensile strength	-40°C	100	MPa	D638	
	20°C	70			
	70°C	35			
Elongation at break		4.5	%	DIN 53455	
Flexural Strength	80x10x4 mm <sup>3</sup>	105	MPa	D790	
Compressive Yield Stress		103	MPa		
Impact strength (Charpy)		15	kJ/m <sup>2</sup>	DIN 53453	
Notched impact strength (IZOD)		1.6	kJ/m <sup>2</sup>	DIN 53453	
Indentation hardness	961/30	175	MPa	DIN 53456	

<b>Thermal properties</b>	<b>parameter</b>	<b>value</b>	<b>unit</b>	<b>norm</b>	<b>comment</b>
Forming Temperature		150-160	°C		
Ignition temperature		430	°C	DIN 51794	
Heat deflection temperature under load	1.8MPa	90	°C		
	0.45MPa	95			
Service temperature	Max	70	°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	

<b>Electrical properties</b>	<b>parameter</b>	<b>value</b>	<b>unit</b>	<b>norm</b>	<b>comment</b>
Volume resistivity		>10 <sup>15</sup>	Ω. cm	DIN VDE 0303	
Dielectric strength	1mm	30	kV/mm	DIN VDE 0303	

<b>Other properties</b>	<b>parameter</b>	<b>value</b>	<b>unit</b>	<b>norm</b>	<b>comment</b>
Water absorption	24h (20°C)	38	mg	DIN 53495	
Flammability	>2mm	B2		DIN 4102	

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