

TECHNICAL DATA SHEET
ACRYLIC

Attribute of the used raw materials	Norm	Unit l. e.	PMMA
I. Physical Properties			PMMA
1. Specific gravity (ρ)	ISO 1183	g/cm ³	1,18
2. Water absorption	DIN 53495	%	0,3
3. Chemical resistance	DIN 53476	-	-
4. Max. permissible service temperature (no stronger mech. stress involved)			
upper temperature limit	-	°C	75...90
lower temperature limit	-	°C	-40
II. Mechanical Properties			
1. Tensile strength at yield (σ_s)	ISO 527	MPa	70
2. Elongation at yield (ϵ_s)	ISO 527	%	-
3. Tensile strength at break (σ_R)	ISO 527	MPa	72
4. Elongation at break (ϵ_R)	ISO 527	%	5
5. Impact strength (a_n)	ISO 179	kJ/m ²	15
6. Notch impact strength (a_k)	ISO 179	kJ/m ²	1,5
7. Ball indentation hardn.(Hk)/Rockwell	ISO 2039-1	MPa	185
8. Flexural strength (σ_B 3,5%)	ISO 178	MPa	125
9. Modulus of elasticity (E_t)	ISO 527	MPa	3300
III. Thermal Properties			
1. Vicat softening temp. VST/B/50	ISO 306	°C	100
VST/A/50		°C	-
2. Heat deflection temp. HDT/B	ISO 75	°C	95
HDT/A		°C	-
3. Coef. of linear therm. expansion (α)	DIN 53752	K ⁻¹ x 10 ⁻⁴	0,7
4. Thermal conductivity at 20 °C (λ)	DIN 52612	W/(m*K)	0,19
IV. Electrical Properties			
1. Volume resistivity (ρ_D)	VDE 0303	Ω x cm	$\geq 10^{15}$
2. Surface resistivity (R_o)	VDE 0303	Ω	$\geq 10^{15}$
3. Dielectric constant at 1 MHz (ϵ_r)	DIN 53483		2,9
4. Diel. loss factor at 1 MHz ($\tan\delta$)	DIN 53483		0,03
5. Dielectric strength	VDE 0303	kV/mm	30
6. Tracking resistance	DIN 53480		KC >600

V. Additional Data			
1. Bondability			+
2. Physiol. indifference	EEC 90/128		+
according	FDA		+
3. Friction coefficient	DIN 53375		0,55
4. Flammability	UL 94		HB
5. UV stabilisation			+
VI. Chemical Properties	Norm	Unit i. e.	PMMA
1. Acid resistance			+
2. Hydrolysis resistance (delute)			+
3. Hydrocarbonat resistance			+
4. CKW resistance			o
5. Aromatic resistance			-
6. Ketone resistance			-
7. Resistance against hot water			o

Application:

We supply any requirements from poster covers to parts for laboratory equipment and underwater cameras. We can supply boat windows, hatch covers, signage, point of sale displays, brochure holders, display boxes, lighting diffusers, dust covers, design furniture, medical light boxes, medical and laboratory equipment.

Options:

SHEET: Clear

Size: 2440 mm x 1220 mm Thickness: 2 mm to 50 mm (Oversize sheets available on request)

SHEET: Black, white, opal, tint

Size: 2440 mm x 1220 mm Thickness: 3 mm to 10 mm

SHEET: Coloured

Size: 2440 mm x 1220 mm Thickness: 3 mm

ROD: Clear

Diameters: 6 mm to 50 mm (Large diameters on request)

TUBE: Clear

Diameters: 5 mm x 3 mm to 200 mm x 194 mm

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