



TECHNICAL DATA SHEET ACRYLIC

	Unit	Test method	PMMA
Physical Properties			
Specific gravity (ρ)	g/cm ³	ISO 1183	1.18
Water absorption	%	DIN 53495	0.3
Maximum temperature range	°C	-	75 - 90
Minimum temperature range	°C	-	-40
Mechanical Properties			
Tensile strength at yield (σ_s)	MPa	ISO 527	70
Elongation at yield (ϵ_s)	%	ISO 527	-
Tensile strength at break (σ_R)	MPa	ISO 527	72
Elongation at break (ϵ_R)	%	ISO 527	5
Impact strength (a_n)	kJ/m ²	ISO 179	15
Notch impact strength (a_k)	kJ/m ²	ISO 179	1.5
Ball indentation hardness.(Hk)/Rockwell	MPa	ISO 2039-1	185
Flexural strength (σ_B 3,5%)	MPa	ISO 178	125
Modulus of elasticity (Et)	MPa	ISO 527	3300
Thermal Properties			
Vicat softening temp. VST/B/50	°C	ISO 306	100
Heat deflection temp. HDT/B	°C	ISO 75	95
Coefficient of linear thermal expansion (α)	K-1x 10-4	DIN 53752	0.7
Thermal conductivity at 20 °C (λ)	W/(m*K)	DIN 52612	0.19
Electrical Properties			
Volume resistivity (ρ_D)	$\Omega \times \text{cm}$	VDE 0303	10^{15}
Surface resistivity (R_o)	Ω	VDE 0303	10^{15}
Dielectric constant at 1 MHz (ϵ_r)		DIN 53483	2.9
Dielectric loss factor at 1 MHz ($\tan\delta$)		DIN 53483	0.03
Dielectric strength	kV/mm	VDE 0303	30
Tracking resistance		DIN 53480	KC >600
Additional Data			
Bondability			+
Food safe	FDA	EEC 90/128	+
Friction coefficient		DIN 53375	0.55
Flammability		UL 94	HB
UV stabilisation			+
Chemical Properties			
Acid resistance			+
Hydrolysis resistance (dilute)			+
Hydrocarbonate resistance			+
CKW resistance			o
Aromatic resistance			-
Ketone resistance			-
Resistance against hot water			o

Application

- Poster covers.
- Boat windows, hatch covers, signage and point of sale.
- Displays, brochure holders, display boxes, lighting diffusers, dust covers and design furniture.
- Medical light boxes as well as medical and laboratory equipment.

Options

SHEET: Clear - 2440 mm x 1220 mm & 2 mm to 50 mm thick (Oversize sheets available on request).

SHEET: Black, white, opal, tint - 2440 mm x 1220 mm & 3 mm to 10 mm thick.

SHEET: Coloured - 2440 mm x 1220 mm & 3 mm thick.

ROD: Clear - Ø6 mm to Ø50 mm (Larger diameters on request).

TUBE: Clear - Ø5mm OD x Ø3mm ID to Ø200mm OD x Ø194mm ID.



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