



Perspex® Cell Cast Acrylic (Complete)

Technical Data Sheet

1. Range

Perspex® cell cast acrylic sheet is available in clear, opal and many colours in a range of thicknesses, sizes and special grades.

2. Masking

Perspex® sheet is supplied with double-sided, non-thermoformable masking. The showface masking is printed with the Perspex® logo

3. Table of Properties

Values quoted for the properties of Perspex® cast sheet are the results of tests on representative samples and do not constitute specifications.

Property	Test Method	Unit	Value
General			
Density	ISO 1183	g cm ⁻³	1.19
Rockwell Hardness	ISO 2039-2	M scale	102
Water Absorption	ISO 62	%	0.2
Flammability	BS 476 Part 7	Class	3
	DIN 4102	-	B2
	NFP 92-507	-	M4
	UL94	-	HB
	ISO 11925-2	-	E
Optical Properties			
Light Transmission	ASTM D1003	% (3 mm)	> 92
Refractive Index	ISO 489 A	-	1.49
Thermal Properties			
Vicat Softening Point	ISO 306 A	°C	> 110
Coefficient of Thermal Expansion (Linear)	ASTM D696	x 10 ⁻⁵ . K ⁻¹	7.7
Maximum Working Temperature	-	°C	80 - 85
Specific Heat	ASTM C351	Cal/g °C	0.35
Thermal Conductivity Coefficient (K Value)	-	W m m ⁻² °C	0.189
Heat Transfer Coefficient (U Value)	-	W m ⁻² °C	5.2
- 3 mm single pane	-	W m ⁻² °C	4.9
- 5 mm single pane	-	W m ⁻² °C	4.9
Mechanical Properties			
Tensile Strength	ISO 527 (5 mm/min)	MPa	75
Elongation at Break	ISO 527 (5 mm/min)	%	4
Flexural Strength	ISO 178 (2 mm/min)	MPa	116
Flexural Modulus	ISO 178 (2 mm/min)	MPa	3210
Impact Strength – Charpy (unnotched)	ISO 179	kJ M ⁻²	12
Poisson's Ratio	ISO 179	kJ M ⁻²	0.38
Sound Insulation Properties			
Sound Reduction Index	-	db	18
- 3 mm single pane	-	db	22
- 6 mm single pane	-	db	25
- 2 x 3 mm panes (20 mm air gap)	-	db	31
- 2 x 6 mm panes (20 mm air gap)	-	db	31
Electrical Properties			
Surface Resistivity	IEC 93	Ω.m-2	> 10 ¹⁴
Electrical Strength	IEC 243	kV.mm-1	15
Arc Resistance	ASTM D495	-	No tracking



Dielectric Constant	ASTM D150	-	4
- 60 cycles		-	3
- 103 cycles		-	3
- 106 cycles		-	
Power Factor	ASTM D150	-	0.06
- 60 cycles		-	0.04
- 103 cycles		-	0.02
- 106 cycles		-	

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Perspex® Cast
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