



TECHNICAL DATASHEET

**PERSPEX® CELL CAST ACRYLIC**

Acrylic GS sheets

PROPERTY	UNIT	VALUE	STANDARD	VARIABLE
<b>General</b>				
Density	g/cm <sup>3</sup>	1,19	ISO 1183	
<b>Mechanical</b>				
Rockwell Hardness	M scale	102	ISO 2039-2	
Tensile Strength	MPa	75	ISO 527	5 mm/ min
Elongation at Break	%	4	ISO 527	5 mm/ min
Flexural Strength	MPa	116	ISO 178	2 mm/ min
Flexural Modulus	MPa	3210	ISO 178	2 mm/ min
Impact Strength - Charpy (unnotched)	kJ M <sup>-2</sup>	12	ISO 179	
Poisson's Ratio	kJ M <sup>-2</sup>	0,38	ISO 179	
<b>Optical</b>				
Light Transmission	%	> 92	ASTM D1003	3 mm
Refractive Index		1,49	ISO 489 A	
<b>Thermal</b>				
Vicat softening Point	°C	> 110	ISO 306 A	
Coefficient of Linear Thermal Expansion (Linear)	10 <sup>-5</sup> /K	7,7	ASTM D696	
Maximum Working Temperature	°C	80 - 85		
Specific Heat	Cal/g*°C	0,35	ASTM C351	
Thermal Conductivity Coefficient (K Value)	W*m*m <sup>-2</sup> *°C	0,189		
Heat Transfer Coefficient (U value)	W*m <sup>-2</sup> *°C	5,2		3 mm single pane
Heat Transfer Coefficient (U value)	W*m <sup>-2</sup> *°C	4,9		5 mm single pane
<b>Electrical</b>				
Surface Resistivity	Ω*m <sup>-2</sup>	>10 <sup>14</sup>	IEC 93	

The technical data given in this sheet correspond to our current state of knowledge and should not be construed as an agreement or guarantee regarding certain properties of our products. The decision on the suitability of a particular material for a specific application is up to the user. We reserve the right to modify the given data. Errors of the given data are reserved.



TECHNICAL DATASHEET

**PERSPEX® CELL CAST ACRYLIC**

Acrylic GS sheets

PROPERTY	UNIT	VALUE	STANDARD	VARIABLE
<b>Electrical</b>				
Electrical Strength	kV*mm <sup>-1</sup>	15	IEC 243	
Arc Resistance		No tracking	ASTM D495	
Dielectric Constant		4	ASTM D150	60 cycles
Dielectric Constant		3	ASTM D150	103 cycles
Dielectric Constant		3	ASTM D150	106 cycles
Power Factor		0,06	ASTM D150	60 cycles
Power Factor		0,04	ASTM D150	103 cycles
Power Factor		0,02	ASTM D150	106 cycles
<b>Acoustical</b>				
Sound Reduction Index	dB	18		3 mm pane
Sound Reduction Index	dB	22		6 mm pane
Sound Reduction Index	dB	25		2 x 3 mm panes (20 mm air gap)
Sound Reduction Index	dB	31		2 x 6 mm panes (20 mm air gap)
<b>Water</b>				
Water Absorption	%	0,2	ISO 62	
<b>Fire classification</b>				
Fire rating UK		Class 3	BS 476 Part 7	
Fire rating DE		B2	DIN 4102	
Fire rating FR		M4	NFP 92507	
Fire rating USA		HB	UL94	
Fire rating International		E	ISO 11925-2	

The technical data given in this sheet correspond to our current state of knowledge and should not be construed as an agreement or guarantee regarding certain properties of our products. The decision on the suitability of a particular material for a specific application is up to the user. We reserve the right to modify the given data. Errors of the given data are reserved.