

Cast acrylic sheets

PO 01 - Table of properties

PROPERTIE	VALUE	UNITS	TEST METHOD
General			
Density ⁽¹⁾	1,19	g/cm ³	ISO 1182, Method A,C o D
Water absorption	0,50 ⁽²⁾	%	UNE-EN ISO 62, Method 1 (24h, 23°C)
Calorific power (760 mm and 0°C)	1,255	kJ/Kg °C	-
Ignition temperature T _i	300	°C	ASTM-1929
Self-ignition temperature T _{ai}	430	°C	
Reaction to fire by radiation	M4	-	UNE-23-727
Thermal			
Specific heat	0,35	cal/g °C	-
Heat conductivity	4,5 x 10 ⁻⁴	cal cm/cm ² seg °C	DIN52612
Heat transmission coefficient K 3 mm	5,50	kcal/m ² h °C	-
Softening temperature VICAT	118	°C	UNE-EN ISO 306 Method A50
Temperature for buckling under load	98	°C	UNE-EN ISO 75/2-A
Recommended moulding temperature	150 - 170	°C	-
Maximum service temperature Flat sheet Moulded part	80 - 85 75 - 80	°C	IRPEN
Linear dilation coefficient	7 x 10 ⁻⁵	K ⁻¹	ISO 11359-2
Dimensional variations at high temperature (contraction)	Max. 2,5	%	UNE-EN ISO 7823-1 Schedule A
Mechanical			
Tensile strength	Min. 70	Mpa	UNE-EN ISO 527-2/1B/5
Modulus of elasticity in traction	Min. 3000		
Deformation in traction	Min. 4	%	
Flexural Strength	110	Mpa	UNE-EN ISO 178
Resistance to Charpy impact (test piece not notched)	Min. 13	kJ/m ²	ISO 179/1 Fu
Rockwell hardness	100	Escala M	UNE-EN ISO 2039-2
Friction coefficient PMMA / PMMA PMMA / Steel	0,80 0,48 - 0,55	°C	IRPEN

Optical			
Light transmission at 420nm ⁽³⁾ Before exposure to a xenon lamp After exposure to a xenon lamp during 1000h	Min. 90 Min. 88	%	ISO 13468-2
Turbidity	1	%	ISO 14782
Refractive index	1,49	-	UNE-EN ISO Method A
Acoustic			
Soundproofing	4mm	24	dB DIN 52210
	6mm	27	
	10mm	29	
	20mm	32	
Electrical			
Specific transversal resistance	Mi. 10 ¹⁵	Ω Cm	DIN VDE 0303 P3
Dielectric strength Ed (1 mm test piece)	30	kV/mm	DIN VDE 0303 P2
Dielectric constant	50 Hz	3,5	DIN VDE 0302 P4
	10 ⁶ Hz	2,6	
Dielectric constant	50 Hz 10 ⁶ Hz	5 x 10 ⁻²	DIN VDE 0303 P4
Environmental information			
No use of CFCs			
Compliance with ROHS Directive			
Policrcil PO 01 colors 010001, 120001, 120002, 120003, 130001, 210002, 220002, 310002, 410001, 610001, 720002 and 910042 for thicknesses between 2 and 10 mm comply with Directive 2002/95/EU of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment			

1) Clear material

2) The value specified refers to square test pieces with a 50 cm side and a thickness of 3 mm.

3) For non-coloured transparent material.

NOTE: The values provided are the result of tests conducted on representative samples but are not specifications

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