

MECHANICAL PROPERTIES

ALT/CSB/GD/1 COLOURED CAST SHEET & BLOCK



ALTERNATIVE PLASTICS

ALT CAST acrylic is a thermoplastic polymer obtained by mass polymerisation of pure monomer and is distinguished by its extreme PURITY and TRANSPARENCY together with:

- EXCELLENT MECHANICAL MACHINING
- EASY THERMOFORMING
- BRILLIANCY AND VARIETY OF COLOURS
- LIGHTNESS AND TOUGHNESS
- EXCELLENT RESISTANCE TO LIGHT AND AGEING.

SPECIFICATIONS OF ALT CAST Acrylic

The properties according to the methods used refer to tests done to ISO 7823-1

PROPERTIES

DENSITY (SPECIFIC WEIGHT)	1.19	g/cm ²	ISO 1183
WATER ABSORPTION (method 1)	0.19	%	ISO 62
MODULUS OF ELASTICITY (Test type 1, speed B)	3000	Mpa	ISO 527
TENSILE STRENGTH (Test type 1, speed B)	72	MPa	ISO 527
FLEXURAL STRENGTH	116	Mpa	ISO 176
TENSILE ELONGATION (Test type 1, speed B)	4	%	ISO 527
IMPACT STRENGTH, Charpy method	14	KJ/m ²	ISO 179/2D
ROCKWELL HARDNESS (Escale M)	100		ISO 2039/2
DEFLECTION TEMP. UNDER LOAD (Method A, 1.8Mpa)	105	°C	ISO 75
DIMENSIONAL CHANGE AT HIGH TEMP. (contraction)	2.3	%	Annex
VICAT SOFTENING POINT	105-120	°C	ISO 306
COEF. OF LINEAR EXPANSION	70.6*10 ⁻⁵	K-1	EN 2155-12
REFRACTIVE INDEX n ^o (Method A)	1.492	-	ISO/R 489
LIGHT TRANSMITTANCE Total	93	%	
LIGHT TRANSMITTANCE at 420nm	92.6	%	ISO 2857
LIGHT TRANSMITTANCE at 420nm after 1000hrs on the xenon lamp	91.04		
AGEING ON ARTIFICIAL LIGHT XENOTES ¹	5	grey scale	ISO 4892
TURBIDITY INDEX HAZE	0.4	%	EN 2155-9
VOLUME RESISTANCE	>10 ¹⁵	Ohm/cm	DIN 53456
SPECIFIC RESISTANCE	>10 ¹⁵	Ohm	DIN 53458
DIELECTRIC CONSTANT 50Hz	3		DIN 53483
DIELECTRIC CONSTANT 0.1Hz	2		

RESISTANCE TO CHEMICAL AGENTS ACIDS, BASES AND INORGANIC SALT. Please enquire.

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