



SOLARIS

PRECISION CAST
ACRYLIC SHEET

Solaris™ is an optical grade cast acrylic material recognised for its outstanding optical and mechanical properties. It forms the ideal base material for display window solutions where optical performance, high light transmission, low weight, thickness uniformity and easy machining are of the essence. All Solaris standard grades contain UV-absorbing material, blocking efficiently up to approx. 400 nm.

MECHANICAL PROPERTIES

Parameter	Test	Values
Tensile Strength (Rupture)	DIN 53455	65-68 Mpa
Elongation	DIN 53455	3-4%
Flexural Rupture Strength	DIN 53452	120 Mpa
Compressive Strength	DIN 53454	125 Mpa
Impact Strength	DIN 53453	12 N/mm ²
Modulus of Elasticity	DIN 53457	3000 Mpa
Hardness	DIN 53456	175 N/mm ²

THERMAL PROPERTIES

Parameter	Test	Values
Specific Heat	-	1.46 J/g°C
Heat Stability - Vicat (3.0mm)	DIN 53460	115°C
Linear Thermal Expansion Coefficient	VDE 0304	0.08mm/m°C ⁻¹
Thermal conductivity	-	0.186 W/m K
Forming Temperature	-	150 to 170°C

ELECTRIC PROPERTIES

Parameter	Test	Values
Dielectric Strength	DIN 53481	40 Kv/mm
Volume Resistivity	DIN 53482	10 15 Ohm cm
Dielectric Constant	DIN 53483	3.4
Dissipation Factor	DIN 453483	0.06

OTHER PROPERTIES

Parameter	Test	Values
Density	DIN 53479	1.18-1.19 g/cm ³
Water Absorption	20°C in 34h	0.17%
Light Transmission (Clear)	450-900 nm	92%
Refractive Index	-	1.49
Fire Behaviour	UL94	HB

Indicated values are generic and subject to change without any notice or obligation on the part of the manufacturer.



PRODUCT AVAILABILITY

Product Thickness:

0.5mm - 4.0mm

Other thicknesses

Product Dimensions:

1500mm x 1000mm

available on request

Mechanical Processing:

Sawing, CNC milling and laser cutting into desired size and shape, optimized for application-specific needs.

Surface Treatment:

Optiguard™ surface treatments can be applied to all Solaris™ materials.

Colour:

Clear (S000) and more than 60 standard colours are available within the Solaris™ and the Solaris™ LS, DS, VFD and IR range.

Customer-specified colour references can be matched and produced accordingly. Either by matching a reference colour sample or by creating a colour filter which changes the colour of a known light source to the desired colour or chromaticity.



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