

Solaris™

Mechanical Properties

Parameter	Test	Values
Tensile strength (rupture)	DIN 53455	65-68 MPa
Elongation at rupture	DIN 53455	3-4 %
Flexural strength (rupture)	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

Material:
Sheet cast PMMA.

Sheet size:
1500 x 1000 mm
Standard thicknesses:
0.5 – 0.8 – 1.0 – 1.5 – 2.0 – 2.5
and 3.0 mm.
Other thicknesses available
upon request.

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

Thermal Properties

Parameter	Test	Values
Specific heat	-	1.46 J/g °C
Heat stability – Vicat (3 mm)	DIN 53460	115 °C
Linear thermal exp. coefficient	VDE 0304	0.08 mm/m °C ⁻¹
Thermal conductivity	-	0.186 W/m K
Forming temperature	-	150 to 170 °C

Surface treatment
Fine Mat and Hard Mat
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.

Electric Properties

Parameter	Test	Values
Dielectric strength	DIN 53481	40 kV/mm
Volume resistivity	DIN 43482	10 ¹⁵ Ohm cm
Dielectric constant	DIN 53483	3.4
Dissipation factor	DIN 53483	0.06

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.

Other Properties

Parameter	Test	Values
Density	DIN 53479	1.18 – 1.19 g/cm ³
Water absorption	20°C in 24h	0.17 %
Light transmission (clear)	450 – 900 nm	≥ 92 %
Refractive index	-	1.49
Fire behavior	UL94	HB