

**LUXACRYL® -ST** is standard acrylic (PMMA) cast according to DIN EN ISO 7823-1 with good weatherability.

Special production: Non-glare hard coating for thicknesses > 5.0 mm.

**Applications:** used for covers, enclosures, glazing, shopfitting, technical parts, and for filters for electronic displays (LED, VFD, LCD etc.).

**Sheet Size:** Standard: approx.. 2000 x 1200 mm in thicknesses of 3.0 to 20.0 mm; thickness tolerance of +/- 15%. ttv also supplies cut to size or machined to customer's drawings (including silk screen printing and adhesive).

Larger sheets and tints available on demand.

TECHNICAL DATA	TEST METHOD	UNIT	VALUE*
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**PHYSICAL**

Density	ISO 1183	g/cm <sup>3</sup>	1,19
Pencil Hardness	ASTM D-3363		ca. 2 – 3H
Water Absorption	ISO 62-1	mg	41

**OPTICAL**

Transmission	DIN 5036	%	ca. 92
Refractive Index	ISO 489		1,49

**THERMAL**

Vicat Softening Temperature	ISO 306	°C	115
Max. Continuous Temperature		°C	80
Heat Distortion Temperature	ISO 75	°C	105
Coeff. of Thermal Expansion	DIN 53752-A	1/°C	7x10 <sup>-5</sup>
Coeff. of Thermal Conductivity	DIN 52612	W/mK	0,19

**MECHANICAL**

Rupture strength (tensile)	- 40°C 23°C 70°C	ISO 527-2/1B/5	MPa	110 80 40
Rupture strength (flexural)		ISO 178	MPa	115
Elongation		ISO 527-2/1B/5	%	5,5
E-Module		ISO 527-2/1B/1	MPa	3300
Impact strength		ISO 180/1 A	kJ/m <sup>2</sup>	1,6

**CHEMICAL**

“+” = no change, “x” = conditionally resistant, “-” = not resistant

- Acetone	- Alcohol (96%)	+ Dilute Alcohol (50%)	- Amine
- Aniline	x Ether	- Aromatic Hydrocarbon	+ Ethylene glycol
+ Benzine	- Benzene	x Bromine Vapors	x Chlorine Vapors
- Chlorinated Hydrocarbon	- Ester	x Fluorine Vapors	x Formaldehyde (10-40%)
+ Glycerine	+ Factory fume	+ Hexane	- Ketones
- Paint thinner	+ Lanolin	+ Bases (10%)	x Bases (20%)
+ Methylamine	+ Mineral Oil	+ Chlorinated Paraffin	+ Petroleum Ether
- Phenole	+ Salt Solutions	+ Acids (20%)	- Carbon Tetrachloride
- Fuel mixture	+ Water	+ Xylene	

\* Values provided cannot be guaranteed in your application due to circumstances beyond our control.

