

**ANTIFLEX®-AR** is ttv's precision cast acrylic sheet - **LUXACRYL®** - for applications with requirements of excellent optical quality, but with a special one-side hard coat (pencil hardness 5 - 6 H) to enhance scratch resistance, combined with a non-glare coating.

**Surface Test applied:** Sliding a weight (diameter 40 mm) of 250p - with a pad of steel wool #1 underneath - 3 times across the surface shall not cause any visible scratches.

**Applications:** Whenever scratch resistance of cast acrylic sheet (pencil hardness 2 to 3 H) does not meet the requirements; mainly as windows for any type electronic displays (LED, LCD and TFT).

**Sheet Size:** Standard 1000 x 498 mm (clear), 900 x 440 mm (tinted); thicknesses from 0.5 mm to 5.0 mm (for off-the-shelf thicknesses see stock list). Thickness tolerance +/- 0.1 mm (for thicknesses up to 3.0 mm). ttv also supplies cut to size or machined to customer's drawings (including silk screen printing and adhesive).

**Special Production:** non-stock sheet sizes, thicknesses, and tints.

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

Density	ASTM D-792	g/cm <sup>3</sup>	1.19
Pencil Hardness	ASTM D-3363		approx. 5 – 6H
Water Absorption	ASTM D-570	%	0.3

**OPTICAL**

Transmission	ASTM D-1003	%	approx. 91
Refractive Index	ASTM D-542		1.49
Gloss Value		GU	approx. 60

**THERMAL**

Vicat Softening Temperature	ISO 306	°C	98 – 102
Max. Continuous Temperature		°C	80
Heat Distortion Temperature	ASTM D-648	°C	100
Coeff. of Thermal Expansion	ASTM D-696	1/°C	7x10 <sup>-5</sup>
Coeff. of Thermal Conductivity	DIN 52612	W/mK	0.16

**MECHANICAL**

Rupture strength (tensile)	ASTM D-638	kg/cm <sup>2</sup>	approx. 600
Rupture strength (flexural)	ASTM D-790	kg/cm <sup>2</sup>	approx. 800
Elongation	ASTM D-638	%	5

**CHEMICAL**

Most moderate chemicals like Acetone, Alcohol (Methyl or Ethyl 50%), Benzene, Ethylen dichloride, Soap Aqua Solution, Toluene, Trichlorethylene; (special testing recommended for more aggressive chemicals)			NO CHANGE
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\* Values provided cannot be guaranteed in your application due to circumstances beyond our control.



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