ANTIFLEX®-AR-PC Technical Data Sheet

ANTIFLEX®-AR-PC is transparent, extruded plastic (Polycarbonate) with very good temperature and high impact resistance; with a special one-side hard coat (pencil hardness approx. 5 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 regular POLYCARBONATE (pencil hardness < 1 H) does not meet the requirements; mainly as windows for any type electronic displays (LED, LCD and TFT).

Sheet Size: Standard approx. 1200 x 500 mm; thicknesses from 0.5 mm to 5.0 mm (for off-the-shelf thicknesses see stock list). Thickness tolerance +/- 10%.
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*
PHYSICAL			
Density	ISO 1183-1	g/cm³	1.20
Pencil Hardness	ASTM D-3363		approx. 5 H
Water Absorption	ISO 62-1	%	0.3
OPTICAL			
Transmission	ASTM D-1003	%	approx. 88
Refractive Index	ASTM D-542		1.586
Gloss Value		GU	approx. 60
THERMAL			
Vicat Softening Temperature	ISO 306	℃	148
Max. Continuous Temperature		℃	120
Heat Distortion Temperature	ISO 75	℃	127
Coeff. of Thermal Expansion	DIN 53752-A	1/℃	$7x10^{-5}$
Coeff. of Thermal Conductivity	DIN 52612	W/mK	0.2
MECHANICAL			
Rupture strength (tensile)	ASTM D-638	kg/cm^2	approx. 650
Rupture strength (flexural)	ASTM D-790	kg/cm^2	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

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

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