IMPEX® Polycarbonate

Product information

IMPEX® Clear Polycarbonate is a virtually unbreakable material. Both sides have a co-extruded UV protection layer which gives it superb weather resistance, making it ideal for both indoor and outdoor use. It also has a very good fire performance for thicknesses from 1.5 up to 6mm according to EN 13501-1.

It's easy to fabricate and gives an exceptional performance at both low and high temperatures (from -40°C to +135°C).

Application
Sign and displays • Lettering • Partitions • Safety glazing and guards

Print suitability
Screen Print • UV

Conversion suitability
Saw • Punching • Glueing • Drilling • Thermoforming • Engraving • Vacuum forming • Line bending

Stock schedule

Sizes	Calliper							
	1mm	2mm	3mm	4mm	5mm	6mm	8mm	10mm	12mm
3050mm x 2050mm		●	●	●	●	●	●	●	●
2050mm x 1250mm	●								

● UVP ● Non UVP

Specification

General

Density ISO 1183 (kg/m^3)	1200
Moisture absorption (23°C saturation in water) ISO 62-1 (%)	0.12
Biocompatibility (skin contact) ISO 10993-5 (Classification)	Not cytotoxic

Mechanical

Tensile modulus ISO 527-2 (MPa)	2200
Tensile strength ISO 527-2 (MPa)	60
ElongationISO 527-2 (%)	80
Tensile modulus ISO 527-2 (MPa)	2200
Tensile strength ISO 527-2 (MPa)	60
Elongation ISO 527-2 (%)	80
Flexural modulus ISO 178 (MPa)	2000
Flexural strength ISO 178 (MPa)	>90
Impact strength – Charpy (unnotched) ISO 179-1/1eU (kJ/m^2)	NB
Impact strength – Charpy (notched) ISO 179-1/1eA (kJ/m^2)	>13
Impact strength – Izod (notched) ISO 180 (kJ/m^2)	>10
Ball indentation Hardness H 358/30 ISO 2039-1 (MPa)	110

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Optical	
Light transmission (3mm) ISO 13468-1 (%)	86
Refractive Index ISO 489 (nD20)	1.585
Solar energy transmittance, g value (3mm) EN 410 (%)	81

Thermal	
Heat deflection temperature (method A) ISO 75-2 (°C)	135
Vicat Temperature (method B 50) ISO 306 (°C)	145
Coefficient of linear expansion ISO 11359-1, -2 (mm/m*K)	0.065
Max. service temperature continuous use (°C)	115
Max service temperature short term use (°C)	135
Degradation temperature (°C)	>280
Forming temperature (°C)	180-210
Specific heat capacity ISO 11357-4 (J/gK)	1.17
Thermal conductivity Iso 22007-1 (W/mK)	0.2
Fire performance (1.5-6mm, clear transparent) EN 13501-1 (Classification)	B-s1, d0

Electrical	
Dielectric strength IEC 60243-1 (kV/mm)	>30
Volume resistivity IEC 62631-3-1 (Ω.m)	1015
Surface resistivity IEC 62631-3-2 (Ω)	1015
Dielectric constant (50Hz) IEC 60250	3.0
Dissipation factor (50Hz)IEC 60250	8 x 10-4

Credentials

MADE IN EU

1.5-6mm

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