



Material: Polycarbonate

Extruded transparent polycarbonate sheet. Has superior impact strength at half the weight of glass. Twice the impact strength of PETG and more than 10 times the impact strength of PMMA. Outstanding clarity and more regularly replacing glass in exposed applications. In the event of a fire the polycarbonate sheet will melt and create a passage where heat and smoke can be let out of the building without contributing to the growth of the fire. Easily screen printed, can be easily formed into gentle curves and usable over a wide temperature range.

Technical Specification

Property	Test Method	Units	Value
Density	ISO 1183	g/cm ³	1.20
Light Transmission	DIN 5036-T.3	%	88
Refractive index @ 20°C	ISO 489	-	1.586
Moisture Absorption 24hrs (23°C) 50%RH	-	%	0.15
Tensile strength at yield	ISO 527	N/mm ²	63
Tensile elongation at yield	ISO 527	%	6
Elastic modulus	ISO 527	N/mm ²	2300
Flexural modulus	ISO 178	N/mm ²	2300
Impact Strength Charpy unnotched @ 23°C	179/2D	kJ/m ²	No break
Impact Strength Charpy unnotched @ -40°C	179/2D	kJ/m ²	No break
Impact Strength Izod notched @ 23°C	180/1A	kJ/m ²	65
Impact Strength Izod notched @ -30°C	180/1A	kJ/m ²	10
Rockwell hardness	ISO 2039-2	-	M70
Linear thermal expansion coefficient (23-80°C)	-	10 ⁻⁴ K ⁻¹	0.70
Vicat temperature VST/B 120	ISO 306	°C	149
Vicat temperature VST/B 50	ISO 306	°C	148
Heat deflection temp HDT A(1.80 N/mm ²)	ISO 75	°C	132
Heat deflection temp HDT B(0.45 N/mm ²)	ISO 75	°C	142
Specific heat capacity Cp	-	KJ/Kg	1.17
Thermal Conductivity	DIN 52612	W/(K.m)	0.21
Fire Classification at 1.5mm	UL94	-	HB

Availability:

Sheet - 2050 x 1250mm, 2500 x 1250mm, 3050 x 2050mm, 0.75-12mm thick
Scratch Resistant, UV Stabilised, Anti-Reflective, Coloured, Tinted, Textured, Flame Retardant and Recycled grades available on application. Minimum order quantities may be required.

Applications:

Machine guards, safety glazing, ice rinks, bus shelters, riot shields, safety visors, models cars, cycle helmets, medical equipment.

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The data shown are typical values and are not intended to represent specifications. Their aim is to guide the user toward a material choice.

Not all material sizes shown within the availability programme of this data sheet are available as standard.

Please contact ABG Rubber and Plastics Ltd for further details.