

Polycarbonate

Details

This is a naturally transparent plastic with high strength and durability on impact. It is shatter resistant and heat resistant. It has high stiffness and high viscosity. PC is generally easy to work with and is used in applications that require transparent and strong materials such as eyeglass lenses.

Key Features

Transparent • Durable • Shatter resistant

Thermal Properties

Property	Value
Heat deflection [°C]	127
Glass transition temperature [°C]	150
Vicat softening temperature [°C]	145
Coefficient of thermal expansion [$K^{-1} \cdot 10^{-6}$]	66
Thermal conductivity [$W/m \cdot K$]	0.19
Specific heat capacity [$J/kg \cdot K$]	1100

Mechanical Properties

Property	Value
Tensile strength [MPa]	60
Modulus of elasticity [GPa]	2.3
Flexural strength [MPa]	90
Flexural modulus [GPa]	2.3

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Hardness	95
Impact strength [KJ/m ²]	65
Elongation at break [%]	120

Physical Properties

Property	Value
Density [g/cm ³]	1.2
Water Absorption [%]	0.1
Electrical Resistivity [ohm-cm]	15×10^{15}

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