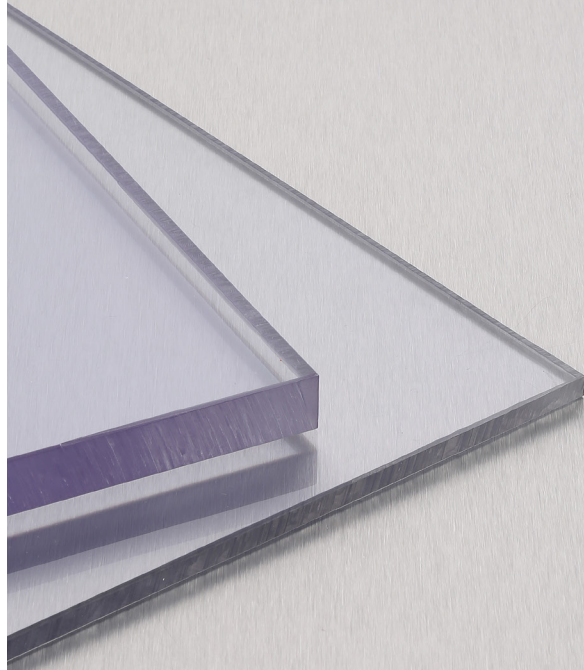
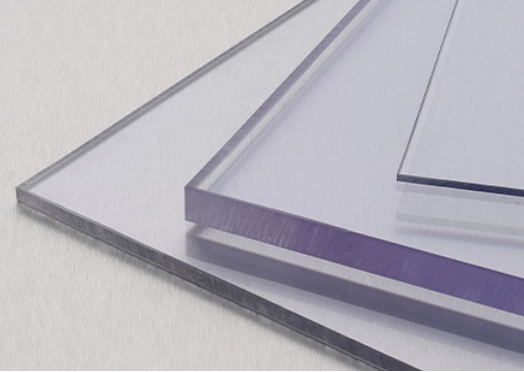


Polycarbonate

Material Information



Polycarbonate

Product full identity:

Polycarbonate (PC)

PC combines excellent optical clarity with virtually unbreakable strength. Easy to fabricate and performing across a wide temperature range, it offers high mechanical, thermal, and electrical properties. Used in industrial glazing, skylights, protective screens, and riot shields, PC delivers durable and reliable performance.

Properties

- Outstanding impact strength
- High temperature range (+120 to -60°C)
- High optical performance
- Easily machined and thermoformed
- Range of finishes and colours, on application

Applications

- Industrial glazing
- Skylights
- Protective screens
- Riot shields
- Industrial equipment

Forms



Sheet



Weld Rod

Polycarbonate

Technical Properties

Physical	Unit	Test Method	Result
Specific gravity	g/cm ³	ISO 1183	1.20
Water absorption until saturation at 23°C	%	ISO 62-1	0.12
Maximum service temp. Upper temp limit – short term	°C	-	135
Maximum service temp. Upper temp limit – long term	°C	-	115
Lower temp limit	°C	-	-40
Mechanical	Unit	Test Method	Result
Tensile strength	MPa	ISO 527-2	60
Elongation at yield	%	ISO 527-2	80
Tensile strength at break	MPa	-	-
Unnotched impact strength	kJ/m ²	ISO 179-1/1eU	No break
Notch impact strength	kJ/m ²	ISO 179-1/1eA	>13
Ball indentation / Rockwell hardness	MPa	ISO 2093-1	110
Shore-D		-	-
Flexural modulus of elasticity	MPa	ISO 178	2000
Tensile modulus of elasticity	MPa	ISO 527-2	2200
Thermal	Unit	Test Method	Result
Vicat-softening point VST/B/50	°C	ISO 306	145
Heat deflection temperature HDT/B	°C	ISO 75-2	135
Coefficient of linear thermal expansion 23 – 100°C	m/(m.K)	ISO 11359-2	0.065
Thermal conductivity at 23°C	W/mK	ISO 22007-1	0.2
Electrical	Unit	Test Method	Result
Volume resistivity	Ω x m	ISO 62631-3-1	10 ¹⁵
Surface resistivity	Ω	ISO 62631-3-2	10 ¹⁵
Insulation resistivity	Ω . cm	-	-
Dielectric constant at 50 Hz		IEC 60250	3.0
Dielectric loss factor at 50 Hz		IEC 60250	8 x 10 ⁻⁴
Dielectric strength	kV/mm	IEC 60243-1	>30
Comparative tracking index (CTI)		IEC 60112	cti-250
Additional Data	Unit	Test Method	Result
Bondability		-	-
Food compliance – FDA		-	No
Food compliance – EU		-	No
Antistatic		-	-
Flammability	Unit	Test Method	Result
Fire performance		EN 13501-1	B-s1,d0
Optical	Unit	Test Method	Result
Light transmission	%	ISO 13468-1	86
Refractive index	nD 20	ISO 489	1.585
Solar energy transmittance g - value	%	EN 410	81

All information provided in this Product Datasheet is for guide purposes only. The data has been taken from standard test results provided by our manufacturers.