

## Technical Data Sheet

### Polycarbonate Sheet Extruded

Clear

PC has excellent optical properties and a high gloss surface. Easy to fabricate PC shows exceptional performance with a wide operating temperature range (-40°C to +135°C). Other important benefits are high

mechanical, thermal and electrical properties also virtually unbreakable in normal use. Also available in UV grade.

#### product information

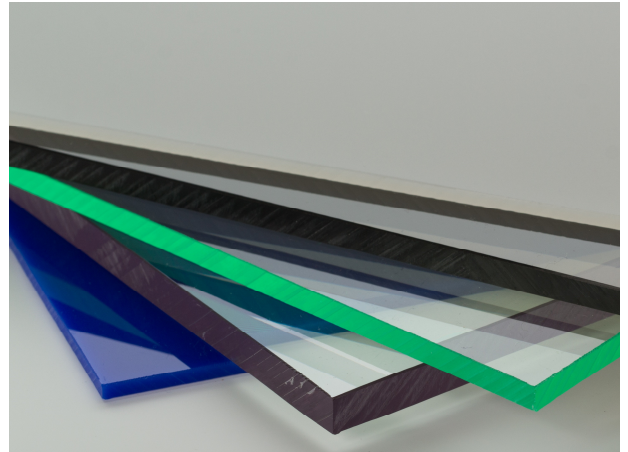
Name: Polycarbonate.  
Other names: Makroclear.  
Abbreviation: PC.

#### key characteristics

- 25% more impact resistant than PETG
- Virtually unbreakable
- Good fire properties & self extinguishing
- Suitable for thermoforming

#### applications

- Machine guards
- Riot shields
- Visors
- Signs
- Windows
- Clean room enclosures



Certificate Number: 14352  
ISO 9001



Care should be taken in selecting the most suitable quality for each application. Advice is available, but final responsibility remains with the customer.

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#### Contact

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United Kingdom

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### Physical Properties

	Test	Unit	Result
1. Specific gravity	ISO 1183	g/cm <sup>3</sup>	1.2
2. Water absorption	ISO 62	%	0.35
3. Maximum service temp. Upper temp limit (no stronger mechanical stress involved)	-	°C	120
Lower temp limit	-	°C	-30

### Mechanical Properties

	Test	Unit	Result
1. Tensile strength at yield	ISO 527	Mpa	60
2. Elongation at yield	ISO 527	%	6
3. Tensile strength at break	ISO 527	Mpa	72
4. Elongation at break	ISO 527	%	150
5. Impact strength	ISO 179	kJ/m <sup>2</sup>	No Break
6. Notch impact strength	ISO 179	kJ/m <sup>2</sup>	55
7. Ball indentation / Rockwell hardness	ISO 2039-1	Mpa	M72/R118
8. Shore-D	DIN 53505	-	-
9. Flexural strength	ISO 178	Mpa	97
10. Modulus of elasticity	ISO 527	Mpa	2300

### Thermal Properties

	Test Method	Unit	Result
1. Vicat-softening point VST/B/50	ISO 306	°C	151
2. Heat deflection temperature HDT/B HDT/A	ISO 75 -	°C °C	143 151
3. Coefficient of linear thermal expansion	ISO 75-2	(x10 <sup>-5</sup> /°C)	0.68
4. Thermal conductivity at 20 °C	ISO 8302	W/(m*K)	0.20

### Electrical Properties

	Test Method	Unit	Result
1. Volume resistivity	VDE 0303	Ω x m	3 x 10 <sup>14</sup>
2. Surface resistivity	-	Ω	6 x 10 <sup>16</sup>
3. Dielectric constant at 1MHz	-	-	2.7
4. Dielectric loss factor at 1 MHz	DIN53483	0	0.01
5. Dielectric strength	VDE 0303	kV/mm	17
6. Tracking resistance (CTI)	IEC 60112	-	250

### Additional Data

	Test Method	Unit	Result
1. Bondability	-	-	+
2. Food compliance	FDA	-	-
3. Flammability	UL94	-	HB

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

Key		
Yes	Limited	No or no data
+	0	-

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