

Technical plastics: Polycarbonat (PC)

Application

safety glazings | building construction | roofings | machine safety glazings | visors | device casings | barrel vaultings | wind deflectors | vehicle glazings

Properties

PC transparent | very impact resistant | good high- and low-temperature behavior | Continuous operating temperature +135°C to -50°C | elongation at break >80% | good electrical insulation properties | can be bent cold and formed hot | approved as side and rear windows in motor vehicles

PC-UVP very impact resistant | high toughness | UV-protected on both sides | resistant to gasoline, oils and greases

Storage

Depending on temperature and humidity dimensional changes occur | Store under dry and above zero conditions!

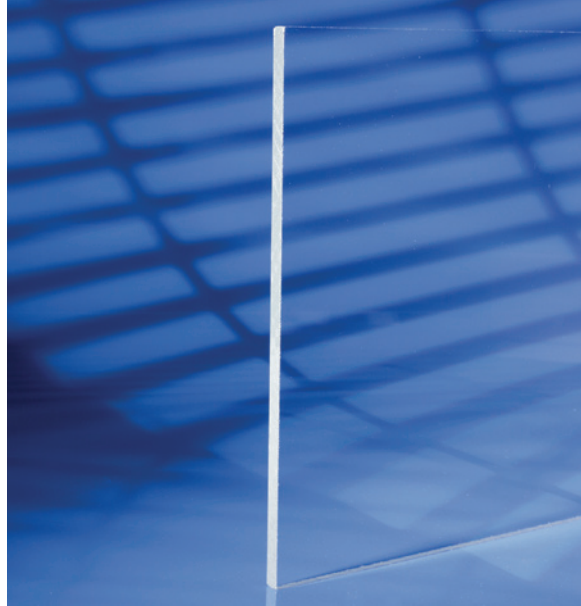
Processing

PC sheets must be dried before hot and cold forming | Pay attention to sharp tools and good chip removal

- To avoid scratches, the film should be kept in place and not be removed during processing
- Sheets can be processed using buzz saws, bandsaws, reciprocating saws as wells as handsaws
- PC can be processed with carbide-tipped standard milling tools
- Drilling can be done with standard drills (point angle 90° to 120°)
- For folding and bending the surfaces should be preheated to +145°C to +160°C
- For the assembly of PC sheets, aluminum rivets with large rivet heads or stainless steel screws should be used. Screw holes should be 1.5 x the screw diameter

Product range

We offer the above mentioned plastics as semi-finished products in various dimensions and thicknesses as sheets| solid rods



Properties	Values
Density (g/cm ³)	1.20
Hardness (Shore Rockwell)	75
Water absorption %	0.18/0.33
Melting temperature (°C)	
Temperature range (°C)	approx. -50 ~ +135
Breaking stress (MPa)	74/-
Tensile strength (MPa)	74
Elongation (%)	6
Elongation at break (%)	>50
Impact strength (kJ/m ²)	without break
Impact toughness (kJ/m ²)	9
Ball-impression hardness (N/mm ²)	120
Plunger strength (kV/mm)	28
Volume resistivity (Ohm.cm)	>10
Surface resistance (Ohm)	>10
Dielectric constant (at 100 Hz)	3.0



Note: The technical parameters are a planning aid only. In particular, they do not represent guaranteed properties. The information in the data sheet is based on individual measurements and our current knowledge and experience. We reserve the right to make production-related changes.
Please note that the individual application conditions have an influence on the properties of each individual product. For this reason the customer is obliged to subject the materials to a suitability test. The use of our materials takes place exclusively within the area of responsibility of the user.