

Chemical Designation

PC (Polycarbonate)

Colour

natural

Density

1.52 g/cm³

Fillers

carbon fibres

Main features

- high dimensional stability
- good surface appearance
- low coefficient of thermal expansion
- very high stiffness
- very high strength

Target Industries

- automotive industry
- mechanical engineering
- safety engineering
- sporting goods

The material is in the phase of further development. The characteristic values of this product may change.

General material information	parameter	value	unit	norm	comment
Fibre type		carbon HT 3k		-	
Fibre architecture		twill 2/2		-	
Fibre areal weight		200	g/m ²	-	
Fibre volume content		50	%	-	
Resin weight content		38.8	%	-	
Areal weight finished product		327	g/m ²	-	
Material widths		1270	mm	-	
ply thickness (consolidated)		0.22	mm	-	
Mechanical properties	parameter	value	unit	norm	comment
Tensile strength		440	MPa	ISO 527-4	1)
Modulus of elasticity (tensile test)		48000	MPa	ISO 527-4	2)
Flexural strength		615	MPa	ISO 14125	3)
Modulus of elasticity (flexural test)		48000	MPa	ISO 14125	4)
Compression strength		215	MPa	ISO 14126	5)
Compression modulus		26000	MPa	ISO 14126	6)
Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature		143	°C	-	(1) approximate value
Service temperature	short term	140	°C	-	
Service temperature	long term	120	°C	-	
Thermal expansion (CLTE)	in 0° and 90° direction	5	10 ⁻⁶ K ⁻¹	-	1)
Predrying	parameter	value	unit	norm	comment
Drying temperature		120	°C	-	
Drying time		3	h	-	

