

TECATEC PC GF50 S296 CP/IP/OS FR V01 natural - Composite Materials

Chemical Designation

PC (Polycarbonate)

Colour

natural

Density

1.75 g/cm³

Fillers

flame retardant (halogen free), glass fibres

Main features

- very good dimensional stability
- flame retardant as per FAR 25.853
- very good mechanical strength
- low moisture absorption

Target Industries

- automotive industry
- aircraft and aerospace interiors
- mechanical 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		E-Glass		-	
Fibre architecture		US 7781		-	
Fibre areal weight		296	g/m ²	-	
Fibre volume content		50	%	-	
Resin weight content		31.9	%	-	
Areal weight finished product		435	g/m ²	-	
Material widths	others on request	1000 1270	mm	-	
ply thickness (consolidated)		0.24	mm	-	
Mechanical properties	parameter	value	unit	norm	comment
Tensile strength		450	MPa	ISO 527-4	
Modulus of elasticity (tensile test)		24000	MPa	ISO 527-4	
Flexural strength		660	MPa	ISO 14125	
Modulus of elasticity (flexural test)		22000	MPa	ISO 14125	
Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature		130	°C	DIN EN ISO 11357	(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		100	°C	-	
Drying time		3	h	-	

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