

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

Chemical Designation

PEEK (Polyetheretherketone)

Colour

natural

Density

1.9 g/cm³

Fillers

glass fibres

Main features

- electrically insulating
- inherent flame resistance
- very good mechanical strength

Target Industries

- automotive industry
- aircraft and aerospace technology
- mechanical engineering
- oil and gas industry
- 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		E glass		-	
Fibre architecture		US 7781		-	
Fibre areal weight		296	g/m ²	-	
Fibre volume content		50	%	-	
Resin weight content		33.9	%	-	
Areal weight finished product		455	g/m ²	-	
Material widths		1270	mm	-	
ply thickness (consolidated)		0.24	mm	-	
Mechanical properties	parameter	value	unit	norm	comment
Tensile strength		450	MPa	ISO 527-4	1) (1) measured on pressed plate
Modulus of elasticity (tensile test)		24000	MPa	ISO 527-4	2) (2) measured on pressed plate
Flexural strength		445	MPa	ISO 14125	3) (3) measured on pressed plate
Modulus of elasticity (flexural test)		22000	MPa	ISO 14125	4) (4) measured on pressed plate
Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature		143	°C	-	(1) approximate value
Melting temperature		343	°C	-	
Service temperature	short term	300	°C	-	
Service temperature	long term	260	°C	-	
Thermal expansion (CLTE)	in 0° and 90° direction	10	10 ⁻⁶ K ⁻¹	-	1)
Predrying	parameter	value	unit	norm	comment
Drying temperature		150	°C	-	
Drying time		4-6	h	-	