

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

Chemical Designation

LM-PAEK (Low-Melt PolyArylEtherKetone)

Colour

natural

Density

1.9 g/cm³

Fillers

glass fibres

Main features

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

Target Industries

- aircraft and aerospace technology
- mechanical engineering
- oil and gas industry
- safety engineering

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	others on request	1000 1270	mm	-	
ply thickness (consolidated)		0.24	mm	-	
Mechanical properties	parameter	value	unit	norm	comment
Tensile strength		400	MPa	ISO 527-4	
Modulus of elasticity (tensile test)		24000	MPa	ISO 527-4	
Flexural strength		480	MPa	ISO 14125	
Modulus of elasticity (flexural test)		24000	MPa	ISO 14125	
Interplanar shear strength		90	MPa	ISO 14129	
Interlaminar shear strength		51	MPa	ISO 14130	
Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature		147	°C	-	(1) approximate value
Melting temperature		303	°C	-	
Service temperature	short term	260	°C	-	
Service temperature	long term	240	°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	-	

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