

TECATEC PP GF45 T600 CP/IP/OS V01 natural - Composite Materials

Chemical Designation

PP (Polypropylene)

Colour

natural

Density

1.7 g/cm³

Fillers

glass fibres

Main features

- very good abrasion resistance
- very good chemical resistance
- good damping
- electrically insulating
- good mechanical properties

Target Industries

- automotive industry
- 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		Twill 2/2		-	
Fibre areal weight		600	g/m ²	-	
Fibre volume content		45	%	-	
Resin weight content		35.4	%	-	
Areal weight finished product		887	g/m ²	-	
Material widths	others on request	1000 1270	mm	-	
ply thickness (consolidated)		0.51	mm	-	
Mechanical properties	parameter	value	unit	norm	comment
Tensile strength		400	MPa	ISO 527-4	
Modulus of elasticity (tensile test)		20000	MPa	ISO 527-4	
Flexural strength		280	MPa	ISO 14125	
Modulus of elasticity (flexural test)		19000	MPa	ISO 14125	
Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature		-10	°C	DIN EN ISO 11357	(1) approximate value
Melting temperature		161	°C	DIN EN ISO 11357	
Service temperature	short term	140	°C	-	
Service temperature	long term	100	°C	-	
Thermal expansion (CLTE)	in 0° and 90° direction	10	10 ⁻⁶ K ⁻¹	-	1)
Predrying	parameter	value	unit	norm	comment
Drying temperature		80	°C	-	
Drying time		6-8	h	-	

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