

TECATEC PPS GW50 PL V01 natural - Composite Materials

Chemical Designation

PPS (Polyphenylsulfide)

Colour

natural

Density

1.9 g/cm³

Fillers

glass fibres

Main features

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

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	condition	value	unit	test method	comment
Fibre type		E glass		-	
Fibre architecture		style 7628		-	
Fibre areal weight		203	g/m ²	-	
Fibre volume content		50	%	-	
Resin weight content		34.9	%	-	
Areal weight finished product		312	g/m ²	-	
Material widths		625x525	mm	others on request	
thickness		1-95	mm	-	
Fibre orientation		0-90°		others on request	
Mechanical properties	condition	value	unit	test method	comment
Tensile strength		375	MPa	ISO 527-4	
Modulus of elasticity (tensile test)		23000	MPa	ISO 527-4	
Flexural strength		500	MPa	ISO 14125	
Modulus of elasticity (flexural test)		21000	MPa	ISO 14125	
Compression strength		400	MPa	ISO 14126	
Compression modulus		26000	MPa	ISO 14126	
Interplanar shear strength		88	MPa	ISO 14129	
Thermal properties	condition	value	unit	test method	comment
Glass transition temperature		90	°C	-	(1) approximate value
Melting temperature		285	°C	-	
Service temperature	short term	260	°C	-	
Service temperature	long term	230	°C	-	
Thermal expansion (CLTE)	in 0° and 90° direction	10	10 ⁻⁶ K ⁻¹	-	1)
Predrying	condition	value	unit	test method	comment
Drying temperature		150	°C	-	
Drying time		2-3	h	-	

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