

TECATEC PEI GW50 PL V01 natural - Composite Materials

Chemical Designation

PEI (Polyetherimide)

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
- 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			33.7	%	-	
Areal weight finished product			446	g/m ²	-	
Material widths			625x525	mm	others on request	
thickness			1-95	mm	-	
Fibre orientation			0-90°		others on request	
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			570	MPa	ISO 14125	
Modulus of elasticity (flexural test)			26000	MPa	ISO 14125	
Compression strength			670	MPa	ISO 14126	
Compression modulus			27000	MPa	ISO 14126	
Thermal properties		parameter	value	unit	norm	comment
Glass transition temperature			217	°C	-	(1) approximate value
Service temperature		short term	200	°C	-	
Service temperature		long term	180	°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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