TECATEC PEI CW50 PL V01 natural - Composite Materials

Chemical Designation
PEI (Polyetherimide)

Colour
natural

Density
1.52 g/cm^3

Fillers
carbon fibres

Main features
- inherent flame resistance
- good surface appearance
- excellent 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		Carbon HT 3k		-	
Fibre architecture		Twill 2/2		-	
Fibre areal weight		200	g/m²	-	
Fibre volume content		50	%	-	
Resin weight content		42.7	%	-	
Areal weight finished product		345	g/m²	-	
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		650	MPa	ISO 527-4	
Modulus of elasticity (tensile test)		56000	MPa	ISO 527-4	
Flexural strength		770	MPa	ISO 14125	
Modulus of elasticity (flexural test)		46000	MPa	ISO 14125	
Compression strength		630	MPa	ISO 14126	
Compression modulus		52000	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	5	10^{-6} K^{-1}	- 1)	

Predrying	parameter	value	unit	norm	comment
Drying temperature		120	°C	-	
Drying time		2-3	h	-	

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Date: 2023/06/02

Version: AD