

TECATEC PEI CF50 T200 CP/IP/OS V01 natural - Composite Materials

Chemical Designation

PEI (Polyetherimide)

Colour

natural

Density

1.52 g/cm³

Fillers

carbon fibres

Main features

- inherent flame resistance
- good surface appearance
- excellent mechanical properties
- continuous service temperature up to 150 °C

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/m ²	-	
Fibre volume content		50	%	-	
Resin weight content		42.7	%	-	
Areal weight finished product		345	g/m ²	-	
Material widths		1270	mm	-	
ply thickness (consolidated)		0.22	mm	-	
Mechanical properties	parameter	value	unit	norm	comment
Tensile strength		650	MPa	ISO 527-4	1) (1) measured on pressed plate
Modulus of elasticity (tensile test)		56000	MPa	ISO 527-4	2) (2) measured on pressed plate
Flexural strength		770	MPa	ISO 14125	3) (3) measured on pressed plate
Modulus of elasticity (flexural test)		46000	MPa	ISO 14125	4) (4) measured on pressed plate
Compression strength		630	MPa	ISO 14126	5) (5) measured on pressed plate
Compression modulus		52000	MPa	ISO 14126	6) (6) measured on pressed plate
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	-	

Nothing contained in this Technical Datasheet shall be interpreted as any express warranty or guarantee. We are neither liable for any values nor content of this datasheet. This exclusion of liability does not apply to claims for damages based on intent, gross negligence or culpable breach of material contractual obligations (cardinal obligations), nor in the case of injury to life, body or health and in the case of product liability as provided by law. Nothing contained herein shall be construed to indicate the non-existence of any relevant patents or to constitute a permission, encouragement or recommendation to practice any development covered by any patents, without permission of the owner of this patent. Data sheet parameters are subject to regular review, the current versions can be found at www.ensingerplastics.com

Manufactured by: Ensinger Group,
a German based plastic manufacturer

63 Hillview Avenue #02-03
Lam Soon Industrial Building
Singapore 669569
Tel +65 65524177
Fax +65 65525177
www.ensingerplastics.com/en-sg/

Date: 2024/11/21

Version: AE

Represented by:
Ensinger Asia Holding Pte Ltd.
(Singapore Branch)
for Southeast Asia