

# TECATEC PEEK GF50 S296 CP/IP/OS V01 natural - Composite Materials

## Chemical Designation

PEEK (Polyetheretherketone)

## Colour

natural

## Density

1.9 g/cm<sup>3</sup>

## Fillers

glass fibres

## Main features

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

## Target Industries

- automotive industry
- aircraft and aerospace technology
- 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 <sup>2</sup>	-	
Fibre volume content		50	%	-	
Resin weight content		33.9	%	-	
Areal weight finished product		455	g/m <sup>2</sup>	-	
Material widths		1270	mm	-	
ply thickness (consolidated)		0.24	mm	-	
Mechanical properties	parameter	value	unit	norm	comment
Tensile strength		450	MPa	ISO 527-4	1) (1) measured on pressed plate (2) measured on pressed plate
Modulus of elasticity (tensile test)		24000	MPa	ISO 527-4	2) (3) measured on pressed plate (4) measured on pressed plate
Flexural strength		445	MPa	ISO 14125	3)
Modulus of elasticity (flexural test)		22000	MPa	ISO 14125	4)
Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature		143	°C	-	(1) approximate value
Melting temperature		343	°C	-	
Service temperature	short term	300	°C	-	
Service temperature	long term	260	°C	-	
Thermal expansion (CLTE)	in 0° and 90° direction	10	10 <sup>-6</sup> K <sup>-1</sup>	-	1)
Predrying	parameter	value	unit	norm	comment
Drying temperature		150	°C	-	
Drying time		4-6	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](http://www.ensingerplastics.com)