

TECAPEEK IM PVX black - Stock Shapes (rods, plates, tubes)

Chemical Designation

PEEK (Polyetheretherketone)

Colour

black opaque

Density

1.45 g/cm³

Fillers

carbon fibres, graphite, PTFE

Main features

- very good chemical resistance
- inherent flame retardant
- good heat deflection temperature
- hydrolysis and superheated steam resistant
- good machinability
- good slide and wear properties

Target Industries

- oil and gas industry
- chemical technology
- energy industry
- mechanical engineering

Mechanical properties	parameter	value	unit	norm	comment
Tensile strength	50mm/min	150	MPa	DIN EN ISO 527-2	1)
Modulus of elasticity (tensile test)	1mm/min	13000	MPa	DIN EN ISO 527-2	
Elongation at break (tensile test)	50 mm/min	2.3	%	DIN EN ISO 527-2	
Flexural strength	2mm/min, 10 N	230	MPa	DIN EN ISO 178	2)
Modulus of elasticity (flexural test)	2mm/min, 10 N	11500	MPa	DIN EN ISO 178	
Shore hardness		83		DIN EN ISO 868	
Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature		150	°C	DIN EN ISO 11357	1)
Melting temperature		341	°C	DIN EN ISO 11357	
Service temperature	short term	300	°C	-	2)
Service temperature	long term	300	°C	-	

(1) For tensile test: specimen type 1b
(2) For flexural test: support span 64mm, norm specimen.

(1) Found in public sources.
(2) Found in public sources. Individual testing regarding application conditions is mandatory.