



DATA SHEET

P.T.F.E. 20% PEEK

80% VIRGIN PTFE + 20% PEEK (Polyetheretherketone)

TECHNICAL DATA

Properties	Test method	Unit of measure	Value
Specific weight	ASTM D4894	g/cm ³	1.95 +/- 0.02
Tensile strength	ASTM D4894	N/mm ²	18
Elongation at break	ASTM D4745	%	200
Shore D hardness	DIN 53 505	Sh. D	68-62
Deformation under load	-	%	-
Compressive strength	ISO604	Mpa	65
Thermal conductivity	-	-	-
Maximum Service Temperature, Air	Continuous Service	C°	260
FDA Certification	-	-	SI

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Polymeric composites are frequently used in applications where traditional fluid lubrication cannot be used.

Solid lubrication is advantageous due to cleanliness, simplicity and the available range of operating temperatures but achieving a combination of low friction and wear rates remains a challenge.

Composite materials offer designers the ability to tune properties and achieve steady, low wear rates while maintaining a low friction coefficient.

Fiber reinforced polymers have shown improved wear rates as well as excellent structural properties.

The traditional design approach has been to use fibers for strengthening and filler particles for lubrication.

Recently there has been some thought with carbon nanotubes to try and have both strengthening and lubrication from the same fibers.

Polyetheretherketone (PEEK) is a popular matrix material for tribological composites due to its strength and wear resistance. It is an injection moldable polymer with a high operating temperature and chemical resistance.

PTFE is an incredibly versatile material used across many industries, thanks to its stable and durable characteristics and affordability.

