



PTFE / Teflon

Alternative Designations

Key Features

Polytetrafluoroethylene

Slippery • Resistant to extreme temperatures • Low friction, thermal and electrical insulator

Description

This is a highly slippery material with excellent resistance to extreme temperatures. It has outstanding insulating properties and is resistant to industrial chemicals. Due to its low coefficient of friction, it is widely used in the production of gears, bushings, slide plates, piston rings etc. Teflon's density and stiffness gives it easy machinability. However, its high coefficient of expansion and stress creep make it difficult to obtain tight tolerances.

Mechanical Properties

Thermal Properties

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Tensile modulus	551.5 MPa	Melting temperature (20°C/min)	
Tensile strength	26.88 MPa	Heat deflection temperature (1.80 MPa)	
Elongation at break	300%	Softening temperature	
Flexural strength	14 MPa		
Flexural modulus	0.49 GPa		

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Physical Properties

Hardness (Shore D)

g/cm³

Reference

Datasheets provided by Xometry contain materials sourced through trusted OEMs, material distributors, and databases. Please visit <u>Materialdatacenter.com</u> for further information on this material.

335°C

55°C

110°C