Data Sheet

PTFE / Teflon

Alternative Designations

Polytetrafluoroethylene

Key Features

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

Tensile modulus	551.5 MPa
Tensile strength	26.88 MPa
Elongation at break	300%
Flexural strength	14 MPa
Flexural modulus	0.49 GPa
Hardness (Shore D)	57

Thermal Properties

Melting temperature (20°C/min)	335°C
Heat deflection temperature (1.80 MPa)	55°C
Softening temperature	110°C

Physical Properties

Density	2.16 g/cm^3

Reference

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