

PTFE (Polytetrafluoroethylene / Teflon) — Technical Datasheet

PTFE (Polytetrafluoroethylene), widely known by the brand name Teflon, is a fluoropolymer with near-universal chemical resistance and the lowest coefficient of friction of any solid material. It maintains performance across an exceptional temperature range from cryogenic to 260°C.

Key Properties

Density	2.14 – 2.20 g/cm³
Tensile Strength	25 – 35 MPa
Flexural Modulus	0.5 – 0.7 GPa
Elongation at Break	200 – 400%
Max Continuous Service Temperature	260°C
Min Service Temperature	-200°C
Coefficient of Friction	0.04 – 0.10 (lowest of any solid)
Chemical Resistance	Near-universal — inert to virtually all industrial chemicals
Available Forms	Rod, Sheet, Tube
Standard Colors	White, Black

Typical Applications: Chemical seals and gaskets, valve components, bearing pads, insulators, food processing equipment, medical devices

Key Features: Near-universal chemical inertness, lowest coefficient of friction, non-stick surface, cryogenic to high-temp capability, FDA-compliant grades available