PTFE (Polytetrafluoroethylene)

Virgin PTFE Sheets, Rods & Tubes — Technical Datasheet

DIODE TRADING EST
Dammam, Saudi Arabia

Virgin PTFE has outstanding chemical resistance, the lowest friction of any solid material and a very wide temperature range. It is the standard material for chemical seals, gaskets, valve seats, slide bearings and electrical insulation.

Specification

Material	Virgin (unfilled) PTFE; glass, carbon, graphite, bronze and MoS2-filled grades on request
Standard Colour	White (virgin)
Forms	Moulded and skived sheets, round rods, tubes, skived film; machined parts
Sheet Thickness	Skived approx. 0.1 - 6 mm; moulded approx. 1 - 100 mm
Rod Diameter	Approx. 3 mm to 300 mm
Standard Sheet Size	1000 x 1000 mm, 1200 x 1200 mm, 1500 x 1500 mm, or cut to size

Material Properties (typical values)

Property	Typical Value
Density	2.13 - 2.20 g/cm³
Tensile strength	20 - 35 MPa
Elongation at break	200 - 400%
Hardness	Shore D 55 - 60
Melting point	approx. 327°C
Service temperature	-200°C to +260°C
Water absorption	< 0.01%
Coefficient of friction	0.05 - 0.10 (dry on steel)
Dielectric strength	40 - 60 kV/mm
Flammability	UL 94 V-0, LOI > 95%
Food contact	FDA-compliant grades available

Typical Applications

Gaskets and seals, valve seats and packings, bridge and slide bearings, chemical linings, piston rings, electrical insulators, laboratory and food-processing parts.

Selection Note

Virgin PTFE creeps under sustained load; use a glass, carbon or bronze-filled grade for higher-load or wear duty.

How to Order

Send the material, grade, colour, form, dimensions (thickness / diameter, width, length) and quantity, or a drawing for machined parts, to Diode Trading EST at www.diode.sa or +966 51 083 8213. Material test certificates are available on request.

Notice: Values are typical and indicative, based on common industry grades. Exact grade, size, tolerance and performance are confirmed on quotation and against the supplier or manufacturer data and material test certificate for each batch. This sheet is not a warranty. Contact Diode Trading EST to confirm availability and specification for your application.