PET (Polyethylene Terephthalate)

Semi-Crystalline Engineering Plastic Sheets & Rods — Technical Datasheet

DIODE TRADING EST
Dammam, Saudi Arabia

Semi-crystalline PET offers high strength and stiffness, very low moisture uptake and excellent dimensional stability. It holds tight tolerances better than nylon and resists wear well, making it suited to precision and food-machinery parts.

Specification

Material	PET semi-crystalline (PET-P); PET with solid lubricant on request
Standard Colours	Natural (white), black
Forms	Sheets, round rods; cut-to-size blanks and machined parts
Sheet Thickness	Approx. 8 mm to 100 mm
Rod Diameter	Approx. 10 mm to 200 mm
Standard Lengths	Rods 1 m / 3 m; sheets 610 x 1000 mm, or cut to size

Material Properties (typical values)

Property	Typical Value
Density	1.38 - 1.39 g/cm³
Tensile strength	80 - 90 MPa
Elongation at break	15 - 20%
Tensile modulus	approx. 3,500 MPa
Hardness	Shore D 85
Notched impact (Charpy)	2 - 3 kJ/m²
Melting point	245 - 255°C
Service temperature	-20°C to +110°C continuous
Water absorption (saturation)	0.25 - 0.5%
Coefficient of friction	0.20 - 0.25 (dry on steel)
Dielectric strength	approx. 22 kV/mm

Typical Applications

Precision bushes and bearings, valve and pump components, food-processing machine parts, electrical insulating parts, manifolds and fittings.

Selection Note

PET is more notch-sensitive than nylon or POM; avoid sharp internal corners on parts under impact load.

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.