PP (Polypropylene)

Chemical-Resistant Plastic Sheets & Rods — Technical Datasheet

DIODE TRADING EST
Dammam, Saudi Arabia

Polypropylene is a lightweight, rigid plastic with excellent resistance to acids, alkalis and many solvents. It welds easily and is widely used to fabricate chemical tanks, ducting, scrubbers and plating equipment.

Specification

Material	PP homopolymer (PP-H); copolymer (PP-C) and flame-retardant grades on request
Standard Colours	Natural, grey (RAL 7032), white; other colours on request
Forms	Sheets, round rods, welding rods; cut-to-size parts
Sheet Thickness	Approx. 2 mm to 100 mm
Rod Diameter	Approx. 10 mm to 300 mm
Standard Sheet Size	1000 x 2000 mm, 1500 x 3000 mm, or cut to size

Material Properties (typical values)

Property	Typical Value
Density	0.90 - 0.91 g/cm³
Tensile strength at yield	30 - 35 MPa
Elongation at break	> 50%
Tensile modulus	1,300 - 1,600 MPa
Hardness	Shore D 70 - 72
Notched impact (Charpy)	4 - 7 kJ/m²
Melting point	160 - 165°C
Service temperature	0°C to +100°C (PP-H)
Water absorption	< 0.1%
Coefficient of friction	approx. 0.30 (dry on steel)
Dielectric strength	approx. 40 kV/mm

Typical Applications

Chemical tanks and process vessels, fume ducting and scrubbers, electroplating tanks, laboratory furniture, pump and valve parts, water-treatment equipment.

Selection Note

PP homopolymer becomes brittle below about 0°C; choose PP copolymer for low-temperature or impact 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.