

Datenblatt | Data sheet

Plastic ball PP

Lightweight balls with good mechanical properties and corrosion properties, fatigue and impact resistance. Heat resistant, excellent electrical insulator. Floating on water.

Field of application

Special valves, low load bearings, check and float valves

Corrosion resistance

Resistant: Non-concentrated acids, alkalis, alcohol, oils, fats

Not resistant: In contact with halogens (weak strength in aromatic hydrocarbons)

Material

Technical name	Alternative Name	Abbreviation
Poly(propene)	Polypropylen	PP

Physical / mechanical / thermal / electrical / magnetic characteristics

Characteristic	Symbol	Unit	Type	Note	Value
Density	δ	g/cm ³	Physical	Ambient temperature	0,87
Modulus of Elasticity	E	GPa	Mechanical		1285
Friction coefficient	μ	-	Mechanical	Ambient temperature	0,30
Specific heat	C	J/kg*K	Thermal	Ambient temperature	0,01
Coefficient of linear thermal expansion	α	10 ⁻⁶ /°C	Thermal	($\Delta T = 0 - 100$ °C)	135
Thermal conductivity	λ	W/(m*K)	Thermal	Ambient temperature	0,19
Volume resistivity	ρ	Ω *m	Electrical	-	> 10 ¹⁴
Relative magnetic permeability	μ	-	Magnetical	Diamagnetic	<~1

Technical characteristics

Characteristic	Type	Unit	Value	Unit	Value
Hardness	Mechanical	Shore D	70 - 80	-	-
Yield point load in compression	Mechanical	MPa	40 - 50	psi*10 ³	5,8 - 7,3
Operating temperature	Thermal	°C	-30 - 110	°F	-22 - 230

Available with

Diameter min/max (mm)	Diameter min/max (in)	Precision grade
1,500 - 160,000	1/16 - 6 5/16	0 / I / II / III / IV