

Plastic ball POM

Very light homopolimeric thermoplastic resin balls, they provide good mechanical characteristics, corrosion resistance, wear and abrasion resistance. Good electric insulators and auto lubricant materials.

Field of application

Spray agitators, light safety valves, low load bearings. Special pumps and valves, sliding rails for furniture, fluids flow check devices, medical instruments. They are used in foodstuff, chemical, electronic, pharmaceutical industry.

Corrosion resistance

Delrin® is resisting in contact with basic, neutral and average acid compounds, sea water, petroleum products, mineral oils and greases, inorganic salt solutions, aliphatic, aromatic and chlorine hydrocarbons, low gradation alcohols, ether. It is not resistant in contact with strong acids (hydrochloric, phosphoric, nitric and sulphuric), mineral acids, chlorides, alcalics.

Material

Technical name	Alternative Name	Abbreviation
Polyoxymethylene	Delrin®, Hostaform	POM

Physical / mechanical / thermal / electrical / magnetic characteristics

Characteristic	Symbol	Unit	Type	Note	Value
Density	δ	g/cm ³	Physical	Ambient temperature	1,37
Modulus of Elasticity	E	MPa	Mechanical		2900
Friction coefficient	μ	-	Mechanical	Ambient temperature	0,28
Specific heat	C	J/kg*K	Thermal	Ambient temperature	0,50
Coefficient of linear thermal expansion	α	10 ⁻⁶ /°C	Thermal	($\Delta T = 0 - 100$ °C)	96
Thermal conductivity	λ	W/(m*K)	Thermal	Ambient temperature	0,25
Volume resistivity	ρ	Ω *m	Electrical	-	> 10 ¹²
Relative magnetic permeability	μ	-	Magnetical	Diamagnetic	<~1

Technical characteristics

Characteristic	Type	Unit	Value	Unit	Value
Hardness	Mechanical	Shore D	80 - 90	-	-
Yield point load in compression	Mechanical	MPa	30 - 120	psi*10 ³	4 - 17
Operating temperature	Thermal	°C	-40 - 85	°F	-40 - 185

Available with

Diameter min/max (mm)	Diameter min/max (in)	Precision grade
1,000 - 160,000	3/64 - 6 5/16	0 / I / II / III / IV / V