DELRIN (POM, Acetal) BALLS

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

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.

Polyoxymethylene	Delrin	POM	(~CH2OH)

Physical / mechanical / thermal / electric / magnetic properties

Density	δ	[g/cm3]	Physical	Room temp.	1.37
Young's modulus	E	[MPa]	Mechanical	-	2800
Friction coefficient	μ	-	Mechanical	Room temp.	0.28
Water absorption	Aw	%	Physical	24 h	0.3
Coefficient of linear thermal expansion	α	[10^-6/ºC]	Thermal	(ΔT=0-100°C)	93
Thermal conductivity	λ	[W/(m·K)]	Thermal	Room temp.	0.27
Volume resistivity	ρ	[Ω*m]	Electric	-	> 10^13
Relative magnetic permeability	μ	-	Magnetic	Diamagnetic	<~1

Technical data

Property	Type	U.o.M.	Values	U.o.M.	Values
Hardness	Mechanical	[Shore D]	80 - 90	-	-
Compressive yield strength	Mechanical	[MPa]	30 - 120	[psix10^3]	4 - 17
Service temperature	Thermal	[ºC]	-40 / 85	[ºF]	-40 / 185

Range

Diameters (min/max)	U.o.M.	Diameters (min/max)	U.o.M.	Precision Grade
1.000 - 350.000	[mm]	3/64 - 14	["]	0 - I - II - III

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's not resisting in contact with strong acids (hydrochloric, phosphoric, nitric and sulphuric), mineral acids, chlorides, alkalis.