Datenblatt | Data sheet

Plastic ball PVC

Thermoplastic amorphous polymer balls, they provide good hardness and stiffness, dimensional stability, radiation resistance and fair corrosion resistance, and can be supplied in a very bright surface aspect. PVC becomes flexible when plasticisers are added enlarging their service temperature range. Moderate impact resistance

Field of application

Galvanic and petrolchemical valves, seal valves, processing plants valves.

Corrosion resistance

Good corrosion resistance in contact with diluted acids, alkalis, inorganic compounds, greases and mineral oils. They can suffer stress corrosion cracking in contact with solvents. Poor resistance with aromatic and halogenated hydrocarbons, ketones, cyclic ethers, aldehydes.

Material

Technical name	Alternative Name	Abbreviation
Polyvinyl chloride	PVC	PVC

Physical / mechanical / thermal / electrical / magnetic characteristics

Characteristic	Symbol	Unit	Type	Note	Value
Density	δ	g/cm^3	Physical	Ambient temperature	1,38
Modulus of Elasticity	E	GPa	Mechanical		3250
Friction coefficient	μ	-	Mechanical	Ambient temperature	0,50
Specific heat	C	J/kg*K	Thermal	Ambient temperature	0,15
Coefficient of linear thermal expansion	α	10^{-6}/°C	Thermal	(ΔT = 0 - 100 °C)	75
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	80 - 84	-	-
Yield point load in compression	Mechanical	MPa	55 - 90	$psi*10^3$	8 - 13
Operating temperature	Thermal	°C	-15 - 70	°F	5 - 158

Available with

Diameter min/max (mm)	Diameter min/max (in)	Precision grade
1,500 - 100,000	1/16 - 4	0 / I / II / III / IV

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