

# Datenblatt | Data sheet

## Plastic ball LDPE

Very light material balls, they are available in three versions (high/low density and ultra high molecular weight). High density polyethylene presents best mechanical characteristics. They provide good wear and abrasion resistance. Excellent corrosion resistance and resistance to radiations, they are electric insulators.

### Field of application

Anti evaporation and anti smell devices, they are useful for floating applications. Used in electronic, pharmaceutical and medical industry.

### Corrosion resistance

Excellent corrosion resistance in contact with acids, alcohols, basis, esters, petrol, greases and oils. Fairish resistance to aliphatic and aromatic hydrocarbons, mineral oils, oxidizing agents. They are not resisting in contact with halogenated hydrocarbons.

### Material

Technical name	Alternative Name	Abbreviation
Low Density Polyethylene	Low Density Polyethylene	LDPE

### Physical / mechanical / thermal / electrical / magnetic characteristics

Characteristic	Symbol	Unit	Type	Note	Value
Density	$\delta$	g/cm <sup>3</sup>	Physical	Ambient temperature	0,92
Modulus of Elasticity	E	MPa	Mechanical		290
Friction coefficient	$\mu$	-	Mechanical	Ambient temperature	0,40
Specific heat	C	J/kg*K	Thermal	Ambient temperature	0,10
Coefficient of linear thermal expansion	$\alpha$	10 <sup>-5</sup> /°C	Thermal	( $\Delta T = 0 - 100$ °C)	160
Thermal conductivity	$\lambda$	W/(m*K)	Thermal	Ambient temperature	0,33
Volume resistivity	$\rho$	$\Omega$ *m	Electrical	-	> 10 <sup>13</sup>
Relative magnetic permeability	$\mu$	-	Magnetical	Diamagnetic	<~1

### Technical characteristics

Characteristic	Type	Unit	Value	Unit	Value
Hardness	Mechanical	Shore D	40 - 55	-	-
Yield point load in compression	Mechanical	MPa	9 - 20	psi*10 <sup>3</sup>	1,4 - 2,9
Operating temperature	Thermal	°C	-30 - 70	° F	-22 - 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