

PLASTIC BALLS

Plastic balls can be used instead of stainless steel or steel balls in various industrial applications at lower cost than metal balls. The most common applications include micro-pumps for spray, dispensers, precision instruments, conditioning and automation equipment etc...



Plastic balls offer above all the advantage of being very light, since their specific weight is very low. They are also highly resistant to heat and they provide smooth and silent running. They do not require lubrication.

Another important feature is their excellent resistance to oxidation and abrasion in very corrosive environments. They also provide electrical and heat insulation and are not magnetic.

MATERIALS AND CHARACTERISTIC

Specification	Specific gravity	Hardness SHORE	Normal Condition	Max temper. Resi stance °C	Water absorption	Cold resi stance	Colour
Polyamide - A (Nylon-PA)	1.13	80 (D)	100° C	120° C	3%	Very good	white
Hostaform-C (Delrin-POM)	1.45	80 (D)	100° C	140° C	minimum	Up to-40° C	white
Teflon (PTFE)	2.10	60 (D)	260° C	300° C	absent	Very good	white

GRADES & TOLERANCE

GRADE	Sphericity		Tolerance		Surface
	um.	Inch. "	um.	Inch. "	
I	25	.001"	+ - 25	+ - .001"	Polished
II	50	.002"	+ - 50	+ - .002"	Polished
III	127	.005"	+ - 127	+ - .005"	Unpolished

Corrosion resistance of plastic balls

PLASTIC MATERIAL	Nylon	Delrin	PTFE
Acetylene	+	+	+
Ethanol	+	+	+
Ethylene glycol	+	+	+
30% Ammonia	+	+	+
Ammonium chloride	+	+	+
Arsenic acid	+	+	+
(lead free) gasoline	+	+	+
High-test gasoline	+	+	+
Javel water	-	-	+
Hydrochloric acid	-	-	+
30% acetic acid	-	±	+
Naturale gas	+	+	+
Vinegar	+	+	+
Greasis, Eatable oil	+	+	+
Formaldehyde	±	+	+
Fuel oil	+	+	+
Isopropanol	+	+	+
Sea water	+	+	+
Methanol	±	+	+
Milk	+	+	+
Canc. Lactic acid	-	+	+
Mineral oil	+	+	+
Caustic SODA	+	±	+
Ozone	±	-	+
Oli (kerosene)	+	+	+
Phenolo	•	-	+
Phosphoric acid	-	-	+
Liquid propane	+	+	+
Canc. Nitric acid	-	-	+
Hydrochloric acid	-	-	+
10% Hydrochloric acid	-	-	+
95% Fuming sulphuric acid	•	-	+
Water, spring water	+	+	+
Hydrogen	+	+	+
Tartaric acid	+	±	+
Xylene	+	+	+

+ = resisting/± = resisting under reserve factor/ • = soluble/- = non resisting