

# BRASS BALLS

Brass balls show fairish mechanical performance, good corrosion resistance, excellent electrical properties. They generate low frictions. Balls are provided in the passivated condition.

## Applications

Special valves, industrial pumps and valves, electronic devices, safety switches, heating units, appliances, furniture rails.

They are used in the automotive, electronic and petrolchemical industry.

## Chemical composition

Type	%Cu	%Zn	%Pb	%Fe	-	-	-	-	-	-	-
C26000	68,50-71,50	balance	0,070 max	0,050 max	-	-	-	-	-	-	-
C27000	63,00-68,50	balance	0,090 max	0,070 max	-	-	-	-	-	-	-
C28000	59,00-63,00	balance	0,090 max	0,070 max	-	-	-	-	-	-	-

## International standards

ITA	USA	GER	FRA	UK	RUS	CHN	JAP
P-CuZn30	C26000	2.0265	CuZn30	CZ106	L70	H70	C2600
P-CuZn35	C27000	2.0335	CuZn36	CZ107	L63	H65	C2700
P-CuZn40	C28000	2.0360	CuZn40	CZ109	L60	H62	C2800

## Physical / mechanical / thermal / electric / magnetic properties

Property	Symbol	U.o.M.	Type	Notes	Values
Density	$\delta$	g/cm <sup>3</sup>	Physical	Room temp.	8,49
Young's modulus	E	GPa	Mechanical	-	110
Specific heat	c	J/kg·K	Thermal	Room temp.	375
Coefficient of linear thermal expansion	$\alpha$	10 <sup>-6</sup> /°C	Thermal	( $\Delta T=0-100^{\circ}C$ )	20,4
Thermal conductivity	$\lambda$	W/(m·K)	Thermal	Room temp.	118,0
Electric resistivity	$\rho$	$\Omega \cdot m \cdot 10^{-9}$	Electric	-	63
Relative magnetic permeability	$\mu$	-	Magnetic	Paramagnetic	1,05

## Technical data

Property	Type	U.o.M.	Values	U.o.M.	Values
Hardness	Mechanical	HRB	75 - 87	-	-
Ultimate tensile strength	Mechanical	MPa	500 - 600	psix10 <sup>3</sup>	72 - 87
Service temperature	Thermal	°C	-196 / 500	°F	-320,8 / 932

## Range

Diameters (min/max)	U.o.M.	Diameters (min/max)	U.o.M.	Precision Grade (ISO 3290)
0,400 - 180,000	mm	1/64 - 7	"	G40-60-100-200-500-1000-2000

## Corrosion Resistance

Good corrosion resistance in drinking-water, brackish water, sea-water (except at high flow rate), salt atmospheres, petroleum products, alcohols.

Fairish resistance with respect to acids and alkali.

It does not resist in contact with hydroxides, cyanides, oxidizing acids.

As a general rule, corrosion resistance decreases as zinc content increases.