

# PRECISION BALLS



**RGPBALLS**  
A WORLD OF SPECIAL BALLS

# COMPANY PROFILE

RGPBALLS Srl, for over fifty years has been one of the major European companies in the production, marketing and distribution of precision spheres, rollers and bearing spheres. The company is ISO 9001:2015, ISO 14001:2015, ISO 18001:2007 certified.

The main headquarters, recently expanded with a new 3,000 m<sup>2</sup> warehouse, has 10,000 m<sup>2</sup> available including offices, warehouse, selection department, metrological laboratory, metallographic laboratory.

Located in Cinisello Balsamo, easily reachable thanks to the immediate vicinity of the main motorway junctions, RGPBALLS Srl employs 70 people in the main headquarters, 20 of which are responsible for the marketing/administrative part, 12 of the metallographic measurement and control laboratory. The rest of the staff is employed in the selection, logistics and warehouse department.

Our warehouses have more than 4,000 tons of stocked products available in order to quickly meet the needs of customers all over the world.

For years, the Group has set the goal of achieving high quality standards by continuing to invest in order to obtain an always increasing reliability towards its customers. Last but not least, the inclusion of a metallographic laboratory with cutting-edge machinery for the analysis of steel microstructures.

We also have qualified personnel available to perform ad hoc consultancies to identify the most suitable item for the requested application.

Thanks to the factories of our Group we have the option of monitoring production with a 100% control on every stage of product processing, by means of a precise and reliable Quality Management.

2015  
Foundation

10.000  
m<sup>2</sup> Headquarter

70  
employees

4.000  
tons of products

More than  
3.000  
customers

## CERTIFICATIONS



# AISI 52100 100Cr6 CHROME STEEL BALLS

Low alloy martensitic chrome steel, AISI 52100 thanks to its high hardness, wear resistance, surface finishing and dimensional precision, it is widely used to manufacture mechanical components.

## Applications

Precision bearings, automotive components (brakes, steering, line shaft), bicycle, agitators, appliances, sliders, quick couplings, machine tool, lock mechanisms, conveyor belts, skates, pens, pumps, castors, measurement instruments, valves.

## Chemical composition

%C	%Si	%Mn	%P	%S	%Cr	%Ni	%Mo	%Cu	-	-	-
0,95-1,05	0,15-0,35	0,25-0,45	0,025 max	0,025 max	1,40-1,65	0,30 max	0,08 max	0,20 max	-	-	-

## International standards

ITA	USA	GER	FRA	UK	RUS	CHN	JAP
100Cr6	52100	1.3505	100C6	534A99	9Ch1	GCr15	SUJ2

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

Property	Symbol	U.o.M.	Type	Notes	Values
Density	$\delta$	g/cm3	Physical	Room temp.	7,80
Young's modulus	E	GPa	Mechanical	-	200
Specific heat	c	J/kg-K	Thermal	Room temp.	464
Coefficient of linear thermal expansion	$\alpha$	10^-6/°C	Thermal	( $\Delta T=0-100°C$ )	12,3
Thermal conductivity	$\lambda$	W/(m·K)	Thermal	Room temp.	42,4
Electric resistivity	$\rho$	$\Omega^*m*10^{-9}$	Electric	-	215
Relative magnetic permeability	$\mu$	-	Magnetic	Ferromagnetic	> 300

## Technical data

Property	Type	U.o.M.	Values	U.o.M.	Values
Hardness	Mechanical	HRC	60 - 66	-	-
Ultimate compressive strength	Mechanical	MPa	2500 - 2600	$psix10^3$	362 - 377
Service temperature	Thermal	°C	-60 / 150	°F	-76 / 302

## Range

Diameters	U.o.M.	Diameters	U.o.M.	Precision grades (ISO 3290-1 / DIN 5401 / AFBMA)
0,250 - 300,000	mm	1/64 - 12	"	G10-15-16-20-24-25-28-40-48-50-60-80-100-200-300-500-600-700-1000



# LOW NOISE AISI 52100 HIGH PRECISION CHROME STEEL BALLS

High precision AISI 52100 chrome steel balls feature the lowest tolerances and noise levels.

## Applications

High precision & aircraft bearings, recirculating ball screws, high precision spindles & gears, bearings for electric motors.

## Chemical composition

%C	%Si	%Mn	%P	%S	%Cr	%Ni	%Mo	%Cu	-	-	-
0,95-1,05	0,15-0,35	0,25-0,45	0,025 max	0,025 max	1,40-1,65	0,30 max	0,08 max	0,20 max	-	-	-

## International standards

ITA	USA	GER	FRA	UK	RUS	CHN	JAP
100Cr6	52100	1.3505	100C6	534A99	9Ch1	GCr15	SUJ2

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

Property	Symbol	U.o.M.	Type	Notes	Values
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Young's modulus	E	GPa	Mechanical	-	200
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Thermal conductivity	$\lambda$	W/(m·K)	Thermal	Room temp.	42,4
Electric resistivity	$\rho$	$\Omega \cdot m \cdot 10^{-9}$	Electric	-	215
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## Technical data

Property	Type	U.o.M.	Values	U.o.M.	Values
Hardness	Mechanical	HRC	60 - 66	-	-
Ultimate compressive strength	Mechanical	MPa	2500 - 2600	$psix10^3$	362 - 377
Service temperature	Thermal	°C	-60 / 150	°F	-76 / 302

## Range

Diameters	U.o.M.	Diameters	U.o.M.	Precision grades (ISO 3290-1)
1,000 - 16,000	mm	3/64 - 5/8	"	G5

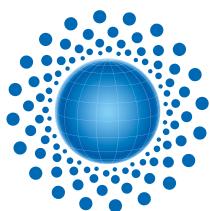


® **RGPBALLS S.r.l.**

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