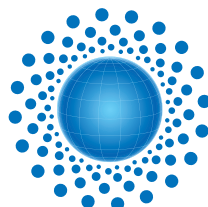


PRECISION BALLS



CATALOG



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 m² warehouse, has 10,000 m² 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
m² Headquarter

70
employees

4.000
tons of products

More than
3.000
customers

CERTIFICATIONS



TUNGSTEN CARBIDE (WC) K20 Co BINDER (ALLOY) BALLS

K20 WC balls are used in applications where extreme hardness and resistance to wear, abrasion, collision and deformation are required. Virgin powder is strictly used into this production.

Applications

Special and hydraulic precision valves, special bearings, couplers, flow meters, sprayers, recirculating balls, ball splines, tool machines, sliding rails, ballpoint pens, pin and tips for indicators, precision measurement instruments, medical instruments. They are used in naval, mining, petrol and coining industry.

Chemical composition

Type	%WC	%Co	-	-	-	-	-	-	-	-
WC20	93,00-95,00	5,00-7,00	-	-	-	-	-	-	-	-

International standards

Type	ISO	USA	CHN	-	-	-	-
WC20	K20	C1	YG6	-	-	-	-

Physical / mechanical / thermal / electric / magnetic properties

Property	Symbol	U.o.M.	Type	Notes	Values
Density	δ	g/cm ³	Physical	Room temp.	14,95
Young's modulus	E	GPa	Mechanical	-	650
Specific heat	c	J/kg·K	Thermal	Room temp.	225
Coefficient of linear thermal expansion	α	10 ⁻⁶ /°C	Thermal	($\Delta T=0-100^{\circ}C$)	5,2
Thermal conductivity	λ	W/(m·K)	Thermal	Room temp.	83,0
Electric resistivity	ρ	$\Omega \cdot m \cdot 10^{-9}$	Electric	-	180
Relative magnetic permeability	μ	-	Magnetic	Slightly ferrom.	max 12

Technical data

Property	Type	U.o.M.	Values	U.o.M.	Values
Grain size	Physical	μm	1,2 - 1,6	-	-
Hardness	Mechanical	HRA	90,0 - 91,5	HV	1550 - 1780
Ultimate compressive strength	Mechanical	MPa	4600 - 5800	psix10 ³	797 - 841
Service temperature	Thermal	°C	-196 / 500	°F	-320,8 / 932

Range

Diameters (min/max)	U.o.M.	Diameters (min/max)	U.o.M.	Precision grades (ISO 3290 / AFBMA)
0,200 - 127,000	mm	1/64 - 5	"	G5-10-16-20-25-28-40-60-100

As a general rule Tungsten Carbides with Cobalt binder show good corrosion resistance into basic solution while they are not resisting into acid solutions.

® RGPBALLS S.r.l.

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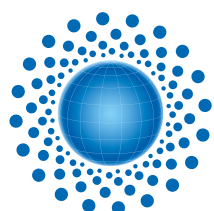
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