

CHROME STEEL BALLS AISI 52100 UNI 100C6

These balls are normally used in precision ball bearings and many industrial applications.

The balls made of this kind of material feature excellent surface finish, considerable hardness and a high load carrying capacity, as well as excellent wear and deformation resistance.

Chrome steel balls are through hardened in order to achieve the maximum mechanical strength.

Diameters: mm 0,025 to mm 250

Precision grades: ISO 3290 G3-5-10-16-20-28-40-100-200-ATBMA G500/G1000

Equivalent materials to international standards: AFN 100C6 - S.S. EN 31 - JIS G4805 - SuJ2 - ASTM 100C6

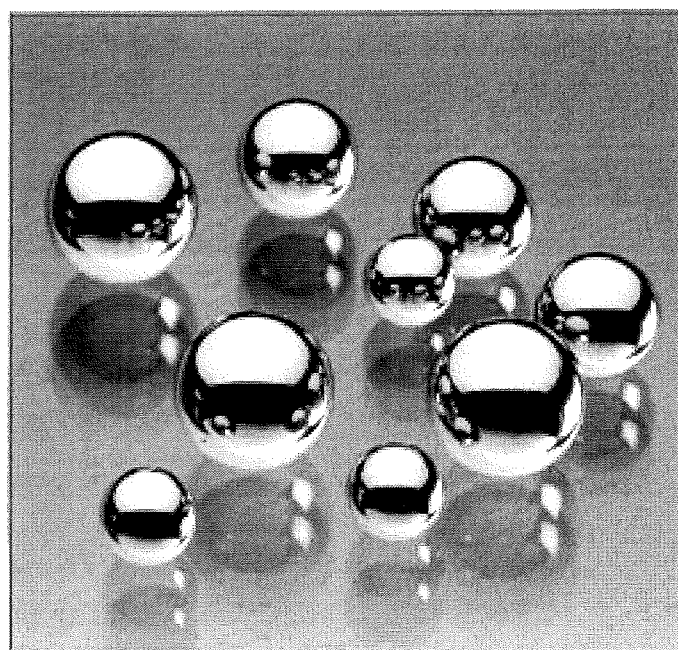
CHEMICAL COMPOSITION %					
C	Si	Mn	P	S	Cr
0,90 1,10	0,15 0,35	0,25 0,45	0,025 max	0,025 max	1,30 1,60

Through hardness index:

up to 12,7 mm	HRC 62/66
from 12,70 mm to 50,80 mm	HRC 60/66
from 50,8 mm to 70 mm	HRC 59/65
from 70 mm to 120 mm	HRC 57/63

Mechanical properties:

Critical tensile strength:	228	kgf/mm ²
Compression strength:	207	kgf/mm ²
Modulus of elasticity:	20,748	kgf/mm ²
Specific weight:	7,830	kgf/mm ³
Highest operating temperature:	+468	°C



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DIAMETERS, WEIGHT, PACKING, TENSILE STRENGTH

DIAMETER			WEIGHT 100 BALLS	QUANTITY PER KG	STANDARD PACKING	TENSILE STRENGTH
MM	INCHES	DEC. INCHES	KG	N° OF BALLS PER KG	BOX QUANTITY	KG
0,397	1/64 "	.015630	0,000026		50.000	-
0,500	-	.019685	0,000051	960.000	50.000	-
0,794	1/32"	.031259	0,00021	476.190	50.000	-
1,000	-	.039370	0,00041	243.900	100.000	-
1,190	3/64"	.046850	0,00073	136.980	100.000	-
1,500	-	.059055	0,00138	72.460	600.000	-
1,588	1/16"	.062519	0,00164	60.980	600.000	-
2,000	-	.078740	0,00326	30.670	300.000	-
2,381	3/32"	.093740	0,00560	17.860	180.000	-
2,500	-	.098425	0,00638	15.670	150.000	-
2,778	7/64"	.109370	0,00825	12.120	120.000	-
3,000	-	.118110	0,01103	9.070	90.000	-
3,175	1/8"	.125000	0,01301	7.690	80.000	666
3,500	-	.137795	0,01762	5.675	60.000	792
3,969	5/32"	.156529	0,02553	3.920	40.000	990
4,000	-	.157480	0,02630	3.802	40.000	1000
4,500	-	.177165	0,03745	2.670	30.000	1240
4,763	3/16"	.187519	0,04412	2.270	25.000	1370
5,000	-	.196850	0,05138	1.946	20.000	1490
5,500	-	.216535	0,06838	1.900	15.000	-
5,556	7/32"	.218740	0,07028	1.420	15.000	1800
6,000	-	.236220	0,08878	1.126	13.000	2060
6,350	1/4"	.250000	0,1021	980	10.000	2280
6,500	-	.255905	0,1129	885	8.000	-
7,000	-	.275590	0,1409	712	7.000	-
7,144	9/32"	.281259	0,1498	665	7.000	2810
7,500	-	.295275	0,1734	567	5.000	-
7,938	5/16"	.312519	0,2056	485	5.000	3380
8,000	-	.314960	0,2104	475	5.000	-
8,500	-	.334645	0,2524	396	4.000	-
8,731	11/32"	.343740	0,2658	375	3.500	4000
9,000	-	.354300	0,2996	334	3.000	-
9,525	3/8"	.375000	0,3554	280	3.000	4670
10,000	-	.393700	0,4110	243	2.500	5090