

STAINLESS STEEL BALLS: AISI 420/420C/440C

1. Description

Martensitic grades (stainless steel balls) are corrosion resistant and have higher hardness. These grades are Ferro-magnetic. They can be used in water, oil, steam, alcohol. They are mainly used where hardness, strength and wear resistance are required.

2. International Equivalents

AISI 420

UNI X20Cr13
 W.N. 1.4021
 AFN Z 20 C13

AISI 420C

UNI X40Cr14
 W.N. 1.3541
 DIN X47 Cr14
 AFN Z 44 C 14

AISI 440C

W.N. 1.4125
 AFN Z 100 CD 17

3. Composition

	C (%)	Mn (%)	Si (%)	Cr (%)	P (%)	S (%)	Mo (%)
AISI 420	0.15 min	1.0 max	1.0 max	12.0-14.0	0.040 max	0.030 max	-
AISI 420C	0.42 min	1.0 max	1.0 max	12.50-14.50	0.040 max	0.030 max	-
AISI 440C	0.95-1.20	1.0 max	1.0 max	16.0-18.0	0.040 max	0.030 max	0.75 max

4. Hardness + Density

	Hardness	Density
AISI 420	48 to 54 Hrc	7.75 g/cm ³
AISI 420C	55 to 60 Hrc	7.75 g/cm ³
AISI 440C	58 to 63 Hrc	7.75 g/cm ³

5. Tolerances

Stainless steel balls AISI are produced according to international standards such as:

- ABMA,
- ISO 3290,
- DIN 5401.

6. Applications

Bearings
Valves
Pumps

