

ATLAS BALL & BEARING CO LIMITED

HAYNES 214® BALL DATA SHEET

Attributes

A Nickel-Chromium-Aluminium-Iron alloy which is principally intended for use at temperatures of 955⁰ C and above.

Specification with equivalents

Haynes 224
Cabot 214
Hastelloy 214
UNS N07214
DIN 2.4646

Chemical Analysis %

Al	4.10-5.00	B	0.004 max
C	0.05 max	Nb/Cb	0.15 max
Co	2.00 max	Cr	15.00-17.00
Fe	2.00-4.00	Mg	0.01 max
Mn	0.50 max	Mo	0.50 max
Ni	Bal	P	0.15 max
S	0.15 max	Si	0.20 max
Ti	0.50 max	W	0.50 max
Y	0.003-0.04	Zr	0.02 max

Typical uses/applications

Parts used in high temperature applications

Mechanical/physical properties

Hardness	400-520 Hv (est)
Tensile strength	1300-1700 Mpa
Specific gravity (density)	8.05 g/cm ³ (0.291 lb/in ³)
Melting range	1355-1400 ⁰ C
Coefficient of Expansion	13.3µm/m·°C (20-100°C)
Modulus of rigidity	84kN/mm ²
Modulus of elasticity	217 kN/mm ²

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