ATLAS BALL & BEARING CO LIMITED

INCONEL® X-750 BALL DATA SHEET

Attributes

Nickel-Chromium alloy made precipitation hardenable by additions of aluminium and titanium.

Specification with equivalents

Inconel® X-750
Alloy X-750
UNS N07750
DIN 2.4669

Chemical Analysis %

Ni+Co	70.0 min	Mn	1.0 max
Fe	5.0 – 9.0	Si	0.5 max
Cr	14.0 – 17.0	S	0.01 max
Ti	2.25-2.75	Cu	0.5 max
Al	0.4-1.0	C	0.08 max
Nb+Ta	0.7-1.2		

Typical uses/applications

Nuclear reactors, gas turbines, rocket engines, pressure vessels and aircraft structures

Mechanical/physical properties

Hardness (spring temper)	360-420 Hv
Tensile strength (spring temper)	1100-1500 Mpa
Hardness (hardened)	410-520 Hv
Tensile strength (hardened)	1350-1750 Mpa
Approx service temperature	-200 to +370^{o} C
Specific gravity (density)	8.28 g/cm^{3} (0.299 lb/in^{3})
Melting point	1430^{o} C
Coefficient of Expansion	12.6µm/m·^{o}C (20-100^{o}C)
Modulus of rigidity	75.8kN/mm^{2}
Modulus of elasticity	212-218 kN/mm^{2}
Magnetic properties	Non magnetic

www.atlasball.co.uk

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