ATLAS BALL & BEARING CO LIMITED

INCONEL® 718 BALL DATA SHEET

Attributes

High strength nickel-chromium alloy that is capable of being precipitation hardened*

Specification with equivalents

Inconel® 718
Alloy 718
UNS N07718
DIN 2.4668

Chemical Analysis %

Ni + Co	50.00 – 55.00	C	0.08 max
Cr	17.00 - 21.00	Mn	0.35 max
Fe	Bal	Si	0.35 max
Nb + Ta	4.75 – 5.50	P	0.015 max
Mo	2.80 – 3.30	S	0.025 max
Ti	0.65 – 1.15	B	0.006 max
Al	0.20 - 0.80	Cu	0.30 max
Co	1.00 max		

Typical uses/applications

Pumps and check valves where good tensile and creep-rupture strength coupled with high corrosion resistance is important.

Mechanical/physical properties

Hardness	360 - 460 Hv*
Tensile strength	1100-1450 Mpa
Approx service temperature	-200 to +550^{o} C
Specific gravity (density)	8.19 g/cm^{3} (0.297 lb/in^{3})
Melting point	1336^{o} C
Coefficient of Expansion	13.0µm/m·^{o}C (20-100^{o}C)
Modulus of rigidity	77.2kN/mm^{2}
Modulus of elasticity	204.9 kN/mm^{2}
Magnetic properties	Non magnetic

**The quoted hardness values are obtained due to work hardening which occurs during the manufacturing process. No precipitation hardening is carried out.*

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