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	В	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° C

Specific gravity (density) 8.19 g/cm³ (0.297 lb/in³)

Melting point 1336° C

Coefficient of Expansion 13.0µm/m·°C (20-100°C)

Modulus of rigidity 77.2kN/mm²
Modulus of elasticity 204.9 kN/mm²
Magnetic properties Non magnetic

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