

ATLAS BALL & BEARING CO LIMITED

NITRONIC® 60 BALL DATA SHEET

Attributes Anti-galling and wear resistant stainless steel.

Specification with equivalents Nitronic 60
UNS S21800
Alloy 218

Chemical Analysis %

C	0.10 max	P	0.04 max
Cr	16.00-18.00	S	0.03 max
Mn	7.00-9.00	Si	3.50-4.50
Ni	8.00-9.00	Cu	0.75 max
N	0.08-0.18	Fe	Bal
Mo	0.75 max		

Typical uses/applications Bearings and valves

Mechanical/physical properties

Hardness	392-446 Hv, 40-45 HRC
Tensile strength	1300 - 1900 Mpa, 189-276 ksi
Service Temperature	-200 to +330°C, -330 to +570° F
Specific gravity (density)	7.60 g/cm ³ (0.280 lb/in ³)
Coefficient of Expansion	15.80µm/m·°C (20-100°C) 8.810 x 10 ⁻⁶ in/in F (73-200° F)
Modulus of Rigidity	69 kN/mm ² , 10008 ksi
Modulus of elasticity	181 kN/mm ² , 26200 ksi
Magnetic permeability	1.010 Oersteds
Poisson's ratio	0.298

www.atlasball.co.uk

Nitronic is a trade name of AK Steel

Whilst every care has been taken we cannot accept liability for any errors contained within this data sheet.

Issue 1: Dated 05.09.18