

ATLAS BALL & BEARING CO LIMITED

INCOLOY® 825 BALL DATA SHEET

Attributes

Nickel-iron-Chromium Alloy with additions of Molybdenum, Copper and Titanium. Resistant to both reducing and oxidising acids. Resistant to Nitric acids and nitrates.

Specification with equivalents

Incoloy 825
UNS N08825
DIN 2.4858
Nicrofer 4221
Superimphy 82

Chemical Analysis %

Ni	38.00-46.00	C	0.05 max
Cr	19.50-23.50	Mn	1.00 max
Mo	2.50-3.50	Si	0.50 max
Fe	22.00 min	Cu	1.50-3.00
Ti	0.60-1.20	S	0.03 max
Al	0.20 max		

Typical uses/applications

Chemical processing and Nuclear Fuel reprocessing.

Mechanical/physical properties

Hardness	250-350 Hv (est)
Tensile strength	800-1100 Mpa
Specific gravity (density)	8.14 g/cm ³ (0.294 lb/in ³)
Melting range	1370-1400° C
Coefficient of Expansion	14.0µm/m·°C (20-100°C)
Modulus of rigidity	76kN/mm ²
Modulus of elasticity	196 kN/mm ²
Poissons ratio	0.29

www.atlasball.co.uk