**alloy wire** international

NICKEL® 200

Key Features

Commercially pure nickel

Resistant to various reducing chemicals & caustic alkalies

Good magnetostrictive properties

High electrical and thermal conductivity

Good ductility and low work hardening rate

Good weldability and solderability

IMPORTANT
We will manufacture to your required mechanical properties.

key advantages
to you, *our customer*

RANGE
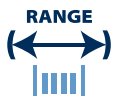
0.025mm to 21mm
(.001" to .827")

Order 3m to 3t
(10 ft to 6000 Lbs)

DELIVERY
3 WEEKS

Delivery:
within 3 weeks

Wire to your spec

E.M.S available

HOW CAN I HELP?
Technical support

NICKEL® 200 available in:-

■ Round wire

■ Bars or lengths

■ Flat wire

■ Shaped wire

■ Rope/Strand

Packaging

■ Coils

■ Spools

■ Bars or lengths

*®Trade name of Special Metals Group of Companies.

Manufacturing quality, delivering reliability | **alloywire.com**

Chemical Composition			Specifications	Key Features	Typical Applications
Element	**Min %**	**Max %**	ASTM B160	Commercially pure nickel	Electronic components
Ni	99.0	-	ASTM B162 BS 3075 NA11	Resistant to various reducing chemicals & caustic alkalies	Electrical components
Cu	-	0.25	BS 3076 NA11		Lead in wires for heating elements
Fe	-	0.40	**Designations**	Good magnetostrictive properties	Battery connections/terminals
C	-	0.15	W.Nr. 2.4060	High electrical and thermal conductivity	Chemical processing
Si	-	0.35	W.Nr. 2.4066	Good ductility and low work hardening rate	Aerospace components
Mn	-	0.35	UNS N02200	Good weldability and solderability	Food processing
Mg	-	0.20	AWS 070		Synthetic fibre processing
Ti	-	0.10			
S	-	0.01			
Co	-	2.00			

Density	8.89 g/cm³	0.321 lb/in³
Melting Point	1446 °C	2635 °F
Coefficient of Expansion	13.3 µm/m °C (20 – 100 °C)	7.4×10^{-6} in/in °F (70 – 212 °F)
Modulus of Rigidity	81 kN/mm²	11748 ksi
Modulus of Elasticity	204 kN/mm²	29588 ksi

Electrical Resistivity	
9.6 µΩ • cm	58 ohm • circ mil/ft

Thermal Conductivity	
70.2 W/m • °C	487 btu • in/ft² • h • °F

Properties			
Condition	**Approx. tensile strength**		**Approx. operating temperature**
	N/mm²	**ksi**	
Annealed	<500	<73	Tensile strength and elongation drop significantly at temperatures above 315 °C (600 °F). Service temperature is dependent on environment, load and size range.
Hard Drawn	700 – 900	102 – 131	

The above tensile strength ranges are typical. If you require different please ask.

AS 9100
Aerospace & Defence

ISO 9001
Quality Management

ISO 14001
Environmental

ISO 45001
Health & Safety