

NICKEL® 201

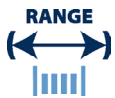
Key Features

- Low-carbon version of Nickel 200
- Preferred to Nickel 200 for applications involving exposure to temperatures above 315 °C (600 °F)
- Resistant to various reducing chemicals & caustic alkalis
- 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



Technical support

NICKEL® 201 available in:-

- Round wire
- Bars or lengths
- Flat wire
- Shaped wire
- Rope/Strand

Packaging

- Coils
- Spools
- Bars or lengths





| Chemical Composition | | | Specifications | Key Features | Typical Applications |
|----------------------|-------|-------|---|---|---|
| Element | Min % | Max % | ASTM B160 ASTM B162 BS 3076 NA12 | Low-carbon version of Nickel 200 Preferred to Nickel 200 for applications involving exposure to temperatures above 315 °C (600 °F) | Electronic components Electrical components Lead in wires for heating elements Battery connections/terminals Chemical processing Aerospace components Food processing Synthetic fibre processing |
| | | | | | |
| Ni | 99.0 | - | W.Nr. 2.4061 W.Nr. 2.4068 UNS N02201 AWS 071 | Resistant to various reducing chemicals & caustic alkalis Good magnetostrictive properties High electrical and thermal conductivity Good ductility and low work hardening rate Good weldability and solderability | |
| Cu | - | 0.25 | | | |
| Fe | - | 0.40 | | | |
| C | - | 0.02 | | | |
| Si | - | 0.35 | | | |
| Mn | - | 0.35 | | | |
| Mg | - | 0.20 | | | |
| Ti | - | 0.10 | | | |
| S | - | 0.01 | | | |
| Co | - | 2.00 | | | |

| | | |
|---------------------------------|----------------------------|---|
| Density | 8.89 g/cm ³ | 0.321 lb/in ³ |
| Melting Point | 1446 °C | 2635 °F |
| Coefficient of Expansion | 13.1 µm/m °C (20 – 100 °C) | 7.3 x 10 ⁻⁶ in/in °F (70 – 212 °F) |
| Modulus of Rigidity | 82 kN/mm ² | 11893 ksi |
| Modulus of Elasticity | 207 kN/mm ² | 30000 ksi |

| Electrical Resistivity | |
|------------------------|----------------------|
| 8.5 µΩ • cm | 51 ohm • circ mil/ft |

| Thermal Conductivity | |
|----------------------|---------------------------------------|
| 79.3 W/m • °C | 550 btu • in/ft ² • h • °F |

| Properties | | | |
|------------|--------------------------|-----------|---|
| Condition | Approx. tensile strength | | Approx. operating temperature |
| | N/mm ² | 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.