

# Alloy 200/201

## Technical Datasheet



Service. Quality. Value.

### Nickel Alloy

#### Typical Applications

- Food processing
- Fluorine generation
- Heat exchangers
- Tank heads
- Chemical processing & storage
- Phenol storage & transportation
- Sodium hydroxide production
- Pressure vessels & vessel components

#### Product Description

Alloy 200 & Alloy 201 are nickel alloys which have been combined into one with dual certified chemistry. This means that you receive the required characteristics from both alloys in a single solution. Alloy 200/201 offers exceptional resistance to caustic alkalis and good mechanical properties over a wide temperature range. The alloy is used in such applications as fluorine and sodium hydroxide production as well heat exchangers and pressure vessels.

#### Key features

- Exceptional resistance to caustic alkalis
- Good mechanical properties over a wide temperature range
- Good corrosion resistance in neutral and moderately reducing environments
- In the annealed condition Alloy 200/201 is similar in strength to mild steel

#### Availability

Bar, tube, strip, plate, sheet

#### Cold working

The tensile properties can be significantly enhanced by cold working.

#### Weldability

Can be joined by a wide variety of processes including inert gas welding processes, resistance welding, soldering and brazing.

#### Chemical Composition (weight %)

	Ni	Mn	Cu	Si	C	S	Fe
min	99.0						
max		0.35	0.25	0.35	0.15	0.01	0.40

#### Mechanical Properties

Typical Tensile Strength	462 MPa
Typical Yield Strength	148 MPa
Typical Elongation	47%

#### Physical Properties

Density@ Room Temp.	0.321 lb/in.3
Young's Modulus @ 78°F	29.7 x 106 psi
Melting Point	2615°F to 2635°F
Specific Heat @ 70°F	0.109 Btu/lb°F
Thermal Conductivity @ 70°F	487 Btu in/ft <sup>2</sup> h°F
Electrical Resistivity @ 70°F	58 ohm circ mil/ft

#### UK Service Centres:

Smiths Belfast **02895 908 897**  
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#### Quality & Testing:



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