Alloy 200/201
Technical Datasheet

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

Key features

- Exceptional resistance to caustic alkalies
- 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

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 alkalies and good mechanical properties over a wide temperature range. The alloy is used in such applications as fluorine and sodium hydroxide production as well as heat exchangers and pressure vessels.

Chemical Composition (weight %)

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<th></th>
<th>Ni</th>
<th>Mn</th>
<th>Cu</th>
<th>Si</th>
<th>C</th>
<th>S</th>
<th>Fe</th>
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<tr>
<td>max</td>
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Mechanical Properties

- Typical Tensile Strength
- Typical Yield Strength
- Typical Elongation

- 462 MPa
- 148 MPa
- 47%

Physical Properties

- Density @ Room Temp.
- Young’s Modulus @ 78°F
- Melting Point
- Specific Heat @ 70°F
- Thermal Conductivity @ 70°F
- Electrical Resistivity @ 70°F

- 0.321 lb/in.3
- 29.7 x 106 psi
- 2615°F to 2635°F
- 0.109 Btu/lb°F
- 487 Btu in/ft² h°F
- 58 ohm circ mil/ft

Weldability

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

Available Bar, tube, strip, plate, sheet

Cold working

The tensile properties can be significantly enhanced by cold working.

Technical Assistance

Our knowledgeable staff backed up by our resident team of qualified metallurgists and engineers, will be pleased to assist further on any technical topic.

www.smithmetal.com sales@smithmetal.com

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