Nickel 200 Datasheet

Nickel 200 is a nickel-chromium alloy with excellent resistance to sulfuric acid and corrosion, widely used in chemical processing and industrial applications.

Alloy / Grade	Nickel 200
Common Forms	Plate, Sheet, Strip, Pipe, Tube, Round Bar, Wire.
Key Feature	Outstanding resistance to caustic soda (sodium hydroxide).
Service Focus	Excellent resistance to all concentrations of sodium hydroxide (caustic soda) at temperatures up to 600 deg F, forming a protective oxide film.

1. Product Overview

Nickel 200 is a 99.6% pure wrought nickel alloy. It offers excellent mechanical properties and resistance to many corrosive environments. It is best known for its exceptional resistance to caustic alkalis up to 600 deg F (315 deg C).

Grade	Core Description	Typical Service Focus
Nickel 200	Nickel 200 is a 99.6% pure wrought nickel alloy. It offers excellent mechanical properties and resistance to...	Nickel 200 is the standard material of choice for environments containing caustic alkalis. Its high purity...
Supply Capability	Plate, Sheet, Strip, Pipe, Tube, Round Bar, Wire.	Standard mill forms, cut-to-size material and project supply
Technical Review	Confirm final values by product form, heat treatment and material certificate	Excellent resistance to all concentrations of sodium hydroxide (caustic soda) at temperatures up to 600 deg...

2. Key Features

- Nickel 200 is the standard material of choice for environments containing caustic alkalis. Its high purity also gives it unique physical properties...
- Excellent resistance to all concentrations of sodium hydroxide (caustic soda) at temperatures up to 600 deg F, forming a protective oxide film.
- Unlike alloyed materials (like Inconel or Monel), pure Nickel 200 retains very high thermal and electrical conductivity.
- With a minimum nickel content of 99.0%, it is ideal for applications where product contamination must be minimized, such as food and synthetic...

Further information under:	https://www.nickelcasting.com/nickel-alloys/commercially-pure-nickel/nickel-200/
Home page:	www.nickelcasting.com
Email:	ni@Nickelcasting.com

Technical Data

The following values are provided as general reference data for engineering review and procurement planning. Confirm final values against the applicable specification, product form, heat treatment condition and material certificate.

3. Chemical Composition (%)

Element	Content (%)
Nickel (Ni) + Cobalt	99.0 min
Copper (Cu)	0.25 max
Iron (Fe)	0.40 max
Manganese (Mn)	0.35 max
Carbon (C)	0.15 max
Silicon (Si)	0.35 max
Sulfur (S)	0.01 max

4. Standard Specifications

Product Form	ASTM / ASME Standards
Pipe & Tube (Seamless)	ASTM B161, ASME SB161
Pipe (Welded)	ASTM B725, ASME SB725
Plate, Sheet, Strip	ASTM B162, ASME SB162
Bar & Rod	ASTM B160, ASME SB160
Fittings	ASTM B366, ASME SB366
Forgings	ASTM B564, ASME SB564

5. Mechanical Properties - Typical at Room Temperature

Property	Typical Values (Room Temp)
Tensile Strength	55 - 75 ksi (380 - 515 MPa)
Yield Strength (0.2% Offset)	15 - 30 ksi (105 - 205 MPa)
Elongation	40 - 55 %
Hardness (Rockwell B)	45 - 75 HRB

Note: Values are typical or specification reference values. Purchase requirements should be confirmed against the required standard, drawing and material test report.

Applications and Ordering Information

Use this section to define inquiry requirements and accelerate technical confirmation for Nickel 200 products.

6. Typical Applications

Industry / Area	Typical Components
Industrial Service	*Note: Nickel 200 is often dual-certified as 200/201, meaning it meets the strength of 200 and the low carbon chemistry of 201.
Chemical / Process Equipment	Manufacturing and handling of sodium hydroxide, particularly in evaporators, heating coils, and storage tanks.
Oil, Gas & Marine	Equipment for handling fatty acids, fruit juices, and other food products to prevent contamination.
High-Temperature / Power	Used in the production of viscose rayon and in the handling of soap.
Precision Components	Lead wires, battery components, and anode plates due to its high electrical conductivity.

7. Available Supply Forms

Plate	Sheet	Strip
Pipe	Tube	Round Bar
Wire.	Forgings	Custom Cutting

8. Information to Include When Requesting a Quote

- Required grade: Nickel 200, with ASTM / ASME / AMS specification if applicable.
- Product form: pipe, tube, plate, sheet, bar, fittings, flanges, forgings or machined parts.
- Dimensions: outside diameter, wall thickness, length, width, thickness or drawing number.
- Quantity, delivery destination and required delivery schedule.
- Special requirements: cutting, machining, heat treatment, NDT, PMI, test report or material certificate.

Company Information	
Address	Shanghai, China
Email	ni@Nickelcasting.com
Home Page	www.nickelcasting.com
Product Page	https://www.nickelcasting.com/nickel-alloys/commercially-pure-nickel/nickel-200/

Disclaimer

This datasheet is provided for general reference only. Actual values may vary by product form, heat treatment, manufacturing condition and applicable specification. Please contact us for confirmed specifications, test reports and material certificates before ordering.