BH DÖVME METAL SANAYİ ve TİCARET LTD. ŞTİ.
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Grade	Code	UNS	Nickel Alloys
Nickel 201	Alloy 201 (2.4061)	N02201	

Nickel Alloy Properties

Nickel 201, thanks to its low-carbon structure, is a commercially pure nickel grade that provides better elevated-temperature stability than Nickel 200 while retaining high ductility and good formability. It offers good weldability, high thermal and electrical conductivity, a relatively low hardness level and improved resistance to high-temperature embrittlement. It should not be considered a high-strength nickel alloy; it is mainly selected for conditions requiring stability, fabricability and reliable process performance.

Chemical Analysis (Nickel 201)

Ni + Co %	Fe %	Mn %	C %	Cu %	Si %	S %
99.00 min.	0.40 max.	0.35 max.	0.02 max.	0.25 max.	0.35 max.	0.01 max.

Mechanical Properties (Annealed)

Product form	Rp0.2, MPa	Rm, MPa	Elongation [%]	Hardness [HB]	Density [g/cm³]
Round Bar	70–170	345–415	40–60	75–100 HB	8.9
Plate	83–240	345–485	40–60	Not specified*	8.9
Sheet	105–210	380–520	40–55	max. 125 HB**	8.9

**** In some datasheets, a specific HB value is not stated for Nickel 201 plate.***

***** HRB 70 max. can be considered approximately 125 HB; for official MTC/certificate values, refer directly to the relevant producer specification.***

Application Areas

Sector	Products
Chemical and petrochemical processing	Caustic evaporator equipment, reactor/vessel internals, chemical storage tank components
Caustic soda / alkali production	Caustic soda tanks, heater tubes, evaporator tube bundles
Food processing	Cooling brine equipment, fatty acid contact parts, fruit juice processing equipment
Synthetic fiber and soap production	Process tanks, mixer/reactor components, alkali transfer lines
Electrical and electronics	Electronic components, conductive connection parts, plater bars / plating bars
High-temperature laboratory and furnace equipment	Combustion boats, crucibles, furnace support parts
Fluorine / phenol and specialty chemical processes	Fluorine production tanks, phenol storage/handling equipment, specialty chemical process fittings
Aerospace and defense	Missile/aircraft components, special fasteners, machined parts requiring high purity

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Description

Nickel 201, with its low-carbon composition, is a commercially pure nickel grade that performs more stably at elevated temperatures than Nickel 200. In the annealed condition it offers high ductility and is suitable for cold forming, bending and deep drawing. It is readily weldable by standard welding methods and has a low tendency to embrittle at low temperatures. For high-temperature service, it can be used up to approximately **677 °C**, but creep strength and the risk of sulfur-bearing environments should be assessed during the design stage.

Specification

Nickel 201, Alloy 201, 2.4061, 2.4068, UNS N02201

Norm

Product form	ASTM / ASME	AMS	Note
Rod / Bar	ASTM B160 / ASME SB160	-	Basic specification for Nickel 201 rod and bar. It covers hot-worked, cold-worked or annealed rod/bar products.
Plate	ASTM B162 / ASME SB162	-	ASTM B162 covers Nickel 201 plate, sheet and strip products.
Sheet	ASTM B162 / ASME SB162	AMS 5553	AMS 5553 is mainly used for low-carbon Nickel 201 sheet/strip products.
Strip	ASTM B162 / ASME SB162	AMS 5553	Evaluated in the same flat-product group as sheet.

Alternative Grades

1. Nickel 200
2. Monel 400
3. Inconel 600

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