BIBUS METALS

Technical datasheet

Nickel 200/201 / W-Nr. 2.4060/61/66/68

Commercially pure nickel (99.6%) with good mechanical properties and corrosion resistance in a range of corrosive media. This highly versatile grade is used in a wide variety of applications.

Available products

Product form	Size range from	Size range to
Sheet/plate	0.5 mm thickness	40.0 mm thickness
Bar	6.0 mm diameter	101.6m m diameter
Tube/pipe	13.7 mm outside diameter	219.1 mm outside diameter

Chemical composition (%)

Ni	Fe	Mn	Si	Cu	S	C
99.0 min	0.40 max	0.35 max	0.35 max	0.25 max	0.01 max	0.02 max (Nickel 201)

Major specifications

ASTM B160, B161, B162, 163, B775, B829	UNS N02200/N02201 DIN 17740

Physical properties

Density	8.89 g/cm^3
Melting range	1435-1446°C

Mechanical properties – typical room temperature properties

Yield strength	148 MPa
Tensile strength	462 MPa
Elongation	47 %

Key attributes

Commercially pure nickel is highly resistant to various corrosive environments and has outstanding resistance to caustic alkalis and is used widely in the field of chemical processing. Its high electrical and thermal conductivity makes it suitable for use in electronic applications. Nickel 201 should be used at service temperatures above 315°C as its lower carbon content (0.02% max, compared to 0.15% max in Nickel 200) prevents embrittlement. Due to its magnetostrictive properties pure nickel is used in sonic devices such as in ultrasonic welding or sonar systems.

Annealed nickel has good ductility, low hardness and a lower work hardening rate than nickel alloys making it suitable for cold forming operations. Pure nickel can be welded by most standard techniques. Please contact us for further details on forming, fabrication and welding consumables.

Applications

Caustic processing
Chemical industries
Electrical and electronic components
Fuel cells
Battery plates
Magnetostrictive devices
Ultrasonic welding systems and sonotrodes