This page is mainly introduced the Nickel Alloy 201 Datasheet, including chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of Nickel Alloy 201,such as it is commonly used in bars, sheet,plates, steel coils, steel pipes,forged and other materials application.

Datasheet for Steel Grades Superalloys Nickel Alloy 201

Nickel Alloy 201 Standard Number:		
ITEM	Standard Number	Descriptions
1	Rod	ASTM B 160, ASME SB 160, DIN 17752, ISO 9723
2	Bar	ASTM B 160, ASME SB 160, DIN 17752, ISO 9723
3	Pipe	ASTM B 161, ASME SB161, ASTM B 163, ASME SB 163, ASTM B 725, ASME SB 725, ASTM B 730, ASME SB 730, ASTM B 751, ASME B 751, ASTM B775, ASME SB 775, ASTM B 829, ASME SB 829 DIN 17751, ISO 6207
4	Tube	ASTM B 161, ASME SB161, ASTM B 163, ASME SB 163, ASTM B 725, ASME SB 725, ASTM B 730, ASME SB 730, ASTM B 751, ASME B 751, ASTM B775, ASME SB 775, ASTM B 829, ASME SB 829 DIN 17751, ISO 6207
5	Plate	ASTM B 162, ASME SB 162, DIN 17750, ISO 6208
6	Sheet	ASTM B 162, ASME SB 162, DIN 17750, ISO 6208
7	Strip	ASTM B 162, ASME SB 162, DIN 17750, ISO 6208
8	Fittings	ASTM B 366, ASME SB 366
9	Forgings	ASTM B 546, ASME SB 564, ISO 9725, DIN 17754
10	Wire	DIN 17753, ISO 9724
11	Other/Similar Specs	Other/Similar Specs

Nickel Alloy 201 Chemical composition(mass fraction)(wt.%)		
Chemical	Min.(%)	Max.(%)
C	99.0	
Cu		0.25
Fe		0.40
Mn		0.35
C		0.02
Si		0.35
S		0.01

C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta

W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

Alloy 200 (UNS N02200) is a commercially pure wrought nickel, with good mechanical properties and an excellent resistance to many corrosive environments. Alloy 200 has good thermal, electrical and magnetostrictive properties. Alloy 201 is exactly the same but with less carbon for hotter applications. Both Alloy 200 and Alloy 201 are generally used in food processing equipment, chemical shipping drums, caustic handling equipment and piping, electronic parts, aerospace and missile components

Nickel Alloy 201 Physical Properties		
Tensile strength	115-234	σb/MPa
Yield Strength	23	σ 0.2 ≥/MPa
Elongation	65	δ5≥ (%)
ψ	-	ψ≥ (%)
Akv	-	Akv≥/J
HBS	123-321	-
HRC	30	-

Nickel Alloy 201 Mechanical Properties		
Tensile strength	231-231	σb/MPa
Yield Strength	154	σ 0.2 ≥/MPa
Elongation	56	δ5≥(%)
ψ	-	ψ≥(%)
Akv	-	Akv≥/J
HBS	235-268	-
HRC	30	-

Nickel Alloy 201 Heat Treatment Regime				
Annealing	**Quenching**	**Tempering**	**Normalizing**	**Q & T**
√	√	√	√	√

Nickel Alloy 201 Range of products				
Product type	Products	Dimension	Processes	Deliver Status
Plates / Sheets	Plates / Sheets	0.08-200mm(T)*W*L	Forging, hot rolling and cold rolling	Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting
Steel Bar	Round Bar, Flat Bar, Square Bar	Φ8-1200mm*L	Forging, hot rolling and cold rolling, Cast	Black, Rough Turning, Shot Blasting,
Coil / Strip	Steel Coil /Steel Strip	0.03-16.0x1200mm	Cold-Rolled & Hot-Rolled	Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting
Pipes / Tubes	Seamless Pipes/Tubes, Welded Pipes/Tubes	OD:6-219mm x WT:0.5-20.0mm	Hot extrusion, Cold Drawn, Welded	Annealed, Solution and Aging, Q+T, ACID-WASHED

We can produce Superalloys the specifications follows: