

Industrial Grades of Nickel Alloys

Trade Name	UNS No.	Typical Composition (wt%)	Characteristics
Nickel 200	N02000	99Ni-0.15Fe-0.2Mn-0.1Si-0.1Cu-0.1C	Commercially pure nickel with excellent corrosion resistance in neutral/alkaline environments.
Nickel 201	N02201	99Ni-0.15Fe-0.2Mn-0.1Si-0.1Cu-0.01C	Low-carbon version of Nickel 200 with better performance at high temperatures.
Nickel 270	N02270	99.9Ni-0.02Fe-0.001Mn-0.002Si-0.005Cu-0.01C	High purity, low hardness, good electrical conductivity.
INCOLOY® alloy A286	S66286	25Ni-15Cr-1.5Mo-2Ti-1Mg-0.03C	High strength iron-nickel alloy, suitable below 700°C.
INCOLOY® alloy 25-6Mo	N08926	25Ni-20Cr-6.5Mo-1Cu-0.2N-1.0Mg-0.01P-0.005S-0.01C	Excellent resistance to FGD systems and chloride environments.
INCOLOY® alloy 25-6HN	N08367	25Ni-20Cr-6.3Mo-0.25Cu-0.2N-0.01P-0.005S-0.01C	Similar to AL-6XN, used in FGD and high corrosion applications.
INCOLOY® alloy 27-7Mo	S31277	27Ni-22Cr-7.0Mo-1Cu-0.3N-0.01P-0.005S-0.01C	Ultra corrosion-resistant stainless steel, FGD systems, oxidizing/reducing environments.
INCOLOY® alloy 020	N08020	36Ni-21Cr-3.5Cu-2.5Mo-1Mn-0.01C	Excellent resistance to sulfuric acid and chloride pitting.
INCOLOY® alloy 028	N08028	32Ni-27Cr-3.5Mo-1Cu-0.01C	Used in the oil industry, great in oxidizing and reducing acids.
INCOLOY® alloy 330	N08330	35Ni-18Cr-2Mg-1Si-0.03C	High-temperature corrosion resistance, ideal for heat treating.
INCOLOY® alloy 800	N08800	32Ni-21Cr-0.3~1.20(Al+Ti)-0.02C	Oxidation resistance, structural stability at high temperatures.
INCOLOY® alloy 800H	N08810	32Ni-21Cr-0.3~1.20(Al+Ti)-0.08C	High creep-rupture strength, used below 600°C.
INCOLOY® alloy 800HT	N08811	32Ni-21Cr-0.85~1.20(Al+Ti)-0.08C	Improved creep resistance over 800/800H.
INCOLOY® alloy 825	N08825	42Ni-21Cr-30Mo-2Cu-0.8Ti-0.1Al-0.02C	Excellent resistance to oxidizing/reducing acids.
INCONEL® alloy 600	N06600	72Ni-15Cr-8Fe-0.2Cu-0.02C	General-purpose nickel alloy, corrosion and oxidation resistant.

INCONEL® alloy 601	N06601	60Ni-22Cr-1.2Al-0.5Cu-0.02C	Oxidation resistance up to 1200°C.
INCONEL® alloy 625	N06625	58Ni-21Cr-9Mo-3.5Nb-1Co-0.02C	Excellent resistance to a wide range of severe environments.
INCONEL® alloy 625LCF	N06626	58Ni-21Cr-9Mo-3.5Nb-1Co-0.02C	Low-cycle fatigue resistant version of 625.
INCONEL® alloy 686	N06686	57Ni-21Cr-16Mo-4W-0.01C	Excellent chemical resistance, especially for aggressive conditions.
INCONEL® alloy 690	N06690	58Ni-30Cr-9Fe-0.2Cu-0.02C	Excellent steam and water corrosion resistance.
INCONEL® alloy 718	N07718	52Ni-19Cr-5Nb-3Mo-1Ti-0.6Al-0.02C	Strengthened with Nb, Ti, Al; good mechanical properties up to 650°C.
INCONEL® alloy X-750	N07750	70Ni-15Cr-6Fe-2.5Ti-0.6Al-1Nb-0.02C	High strength and oxidation resistance up to 700°C.
MONEL® alloy 400	N04400	63Ni-32Cu-1Fe-0.1C	Excellent corrosion resistance in marine and chemical environments.
MONEL® alloy K-500	N05500	63Ni-30Cu-1Fe-3Al-0.6Ti-0.1C	Precipitation-hardened version of 400, better mechanical strength.
HASTELLOY® alloy C-276	N10276	57Ni-16Mo-16Cr-5Fe-4W-2.5Co-1Mn-0.35V-0.08Si-0.01C	Excellent corrosion resistance in harsh chemical environments.
HASTELLOY® alloy C-4	N06455	65Ni-16Cr-16Mo-0.7Ti-3Fe-2Co-1Mn-0.08Si-0.01C	Good resistance to oxidizing and reducing media.
HASTELLOY® alloy C-22	N06022	56Ni-22Cr-13Mo-3Fe-3W-2.5Co-0.5Mn-0.35V-0.08Si-0.01C	Excellent resistance to oxidizing acids and chloride media.
HASTELLOY® alloy C-2000	N06200	59Ni-23Cr-16Mo-1.6Cu-0.08Si-0.01C	Excellent uniform corrosion resistance and stress corrosion cracking resistance.
HASTELLOY® alloy X	N06002	47Ni-22Cr-18Fe-9Mn-1.5Co-0.6W-0.10C-1Mn-1Si-0.008B	Strong resistance to hydrochloric acid.
HASTELLOY® alloy B-2	N10665	69Ni-28Mo-0.55Cr-1.8Fe--3W-1.0Co-1.0Mn-0.01C	Great resistance to pure reducing media.
HASTELLOY® alloy B-3	N10675	65Ni-28.5Mo-1.5Cr-1.5Fe-3W-3Co-3Mn-0.01C	Improved thermal stability over B-2.
HASTELLOY® alloy G-30	N06030	43Ni-30Cr-15Fe-5.5Mo-2.5W-5Co-2Cu-1.5Mn-0.03C	Excellent resistance to oxidizing acid mixtures.

