NICKEL & NICKEL-ALLOYS

MATERIAL	ALLOY NAME	CHEMICAL COMPOSITION (%)	MECHANICAL PROPERTY				DENSITY (g/㎤)	UNS No.	SHEET & PLATE	STRIP	ROD	BAR	WIRE	FORGING	AUTOMATIC WELDED PIPE	AUTOMATIC WELDED TUBE	WELDED PIPE	SEAMLESS PIPE & TUBE
			HEAT-TREATMENT CONDITION	TENSILE STRENGTH 1000Psi (Mpa)	YIELD STRENGTH 1000Psi (Mpa)at 0.2%offset	HARDNESS BRINELL (ROCKWELL)												
HASTELLOY B	B		Annealed				9.22	N10001	B333	B333	B335				B619	B626		B622
HASTELLOY B-2	B-2	Ni BAL,Cr1.0 Mo1.0 Fe2.0,Si 0.10 Co1.0,CO 0.02	Annealed	132.5 (914)	57.5 (396)	228 (B-98)	9.22	N010665	B333	B333	B335				B619	B626		B622
HASTELLOY C-4	C-4	Ni BAL,Co2.0 Cr16 Mn1.0 Mo 15.5 Ti0.7 Fe3.0,C 0.01	Annealed	116.2 (801)	61.0 (421)	194 (B-92)	8.64	N06455	B575	B575	B574				B619	B626	B775	B622
HASTELLOY C-276	C-276	Ni BAL,W4 Mo28,Co2.5 Cr15.5 Mn 1.0 Fe5.5 C 0.02	Annealed	114.9 (792)	51.6 (356)	184 (B-90)	8.89	N10276	B575	B575	B574			B564	B619	B626	B775	B622
HASTELLOY C-22	C-22	Ni Bal Cr20-22.5 Mo12.5-14.5 W 2.5-3.5 Co2.5, C 0.01	Annealed	116.3 (802)	58.5 (403)	184 (B-90)	8.69	N06022	B575	B575	B574			B564	B619	B626	B775	B622
MAT 21	MAT21		Annealed					N06210	B575	B575				B564	B619	B626	B775	B622
HASTELLOY G	G	Ni BAL,CO2.5 Cr22 Cb+Ta 2 Fe 19.5,Cu2 Mo6.5,Mn1.5 W1,Si 1	Annealed	102.0 (703)	46.2 (319)	161 (B-84)	8.30	N06007	B582	B582	B581				B619	B626	B775	B622
HASTELLOY G-3	G-3	Ni BAL,Co5 Cr21-23.5,Cu1.5-2.5 Fe18-21,W1.5 Mo6-8,Si1 Mn1, C0.015	Annealed	99.0 (683)	44.0 (303)	158 (B-83)	8.30	N06985	B582	B582	B581				B619	B626	B775	B622
HASTELLOY X	X	Ni BAL,Co1.5 Cr22.5,Si1 Mn1, Fe18.5 CO1 Al 0.5,Mo 9 W0.6 Ti 0.15	Annealed	109.5 (755)	55.9 (385)	194 (B-92)	8.22	N06002	B435	B435	B572				B619	B626	B775	B622
HAYNES 230	230		Annealed					N06230	C.C.2063	C.C.2063	C.C.2063			C.C.2063	C.C.2063	C.C.2063		
NI200	200	Ni 99.6 C 0.15 MAX	Annealed	55-80 (380-550)	15-30 (100-210)	90-120	8.89	N02200	B162	B162	B160	B160			B725	B730	B775	B161
NI201	201	Ni 99.6 C 0.02 MAX	Annealed	55-80 (380-550)	15-30 (100-210)	90-120	8.89	N02201	B162	B162	B160	B160			B725	B730	B775	B161
Alloy 20 (Capenter20)	20	Ni 35,Mo 2.5 Fe 37, Cr 20 Cu 3.5	Annealed	90 (620)	45 (310)	183 (B-90)	8.00	N08020										
Alloy 400	400	Ni 66.5,Cu 31.5	Annealed	70-90 (480-620)	25-50 (170-340)	110-149	8.83	N04400	B127	B127	B164	B164	B164	B564	B725	B730	B775	B165
Alloy R-405	R-405	Ni 66.5,Cu 31.6 S 0.04	Annealed	70-85 (480-590)	25-40 (170-280)	110-140	8.42	N04405										
Alloy 450	450	Cu 66,Ni 30,Fe 0.7	Annealed	56 (385)	24 (165)	90		C71500										
Alloy K-500	K-500	Ni 65.5,Cu 29.5,Al 2.7,Ti 0.6	Annealed	140-190 (970-1310)	110-150 (760-1030)	265-346	8.48	N05500										
Alloy 600	600	Ni 79,Cr 15.5,Fe 8	Annealed	80-100 (550-690)	30-50 (210-340)	120-170	8.42	N06600	B168	B168	B166	B166	B166	B564	B517	B518	B775	B167
Alloy 601	601	Ni 60.5,Cr 23 Fe 14,Al 1.4	Annealed	80-115 (550-790)	30-60 (210-340)	110-150	8.06	N06601	C.C.1500	C.C.1500	C.C.1500			C.C.1500	C.C.1500	C.C.1500		
Alloy 617	617	Ni 52,Mo 9,Cr 22,Al 1.2,Co 12.5	Annealed	110 (760)	51 (350)	173	8.36	N06617										
Alloy 625	625	Ni 61,Cr 21.5,Mo 9,Nb+Ta 3.6	Annealed	135 (930)	75 (520)	180	8.44	N06625	B443	B443	B446	B446		B564	B705	B704	B775	B444
Alloy 690	690	Ni 60,Cr 30,Fe 9.5	Annealed	100 (690)	55 (379)	184	8.19	N06690										
Alloy 718	718	Ni 52.5,Mo 3,Cr 19,Fe18.5,Nb+Ta 5.1	Aged	198 (1350)	171 (1180)	382	8.19	N07718										
Alloy X-750	X-750	Ni 73,Ti 2.5,Cr 15.5,Fe 7,Nb+Ta 1.0	Annealed	162-193 (1120-1330)	115-142 (790-980)	300-390	8.25	N07750										
Alloy 800	800	Ni 32.5,Fe 46,Cr 21	Annealed	75-100 (520-690)	30-60 (210-410)	120-184	7.95	N08800	B409	B409	B408	B408		B564	B514	B515	B775	B407
Alloy 800H	800H		Annealed				7.95	N08810	B409	B409	B408	B408		B564	B514	B515	B775	B407
Alloy 800HT	800HT	Ni 32.5,C0.08,Fe 46,Cr21,Al+Ta 1.0	Annealed	65-95 (450-660)	20-50 (140-340)	100-184	7.95	N08811	B409	B409	B408	B408		B564	B514	B515	B775	B407
Alloy 825	825	Ni 42,Cu2.2,Fe 30,Cr 21.5,Mo 3	Annealed				8.14	N08825	B424	B424	B425	B425			B705	B704	B775	B423