



Alloy List – Summary

Cast Grade	Wrought Grade	Composition, % - Classification	Typical Mechanical Properties, min		
			Tensile, MPa	Yield, MPa	Elong, %
200 Series Stainless Steels – Ferritic					
CB-30	431, 442	20 Cr	450	205	-
CC-50	446	28 Cr	380	-	-
300 Series Stainless Steels – Austenitic					
CF-3	304L	19 Cr, 9 Ni – Low carbon	485	205	35
CF-8	304	19 Cr, 9 Ni	485	205	35
CF-3M	316L	19 Cr, 10 Ni with Mo – Low carbon	485	205	30
CF-8M	316	19 Cr, 10 Ni with Mo	485	205	30
CF-16F	303	19 Cr, 9 Ni – Free machining	485	205	25
CG-8M	317	19 Cr, 11 Ni with Mo	520	240	25
CH-20	309	25 Cr, 12 Ni	485	205	30
CK-20	310	25 Cr, 20 Ni	450	195	30
CK-3MCuN		20 Cr, 18 Ni with Cu & Mo	550	260	35
CN-3MN		21 Cr, 24 Ni with Mo & N	550	260	35
CN-7M		20 Cr, 29 Ni with Cu & Mo	425	170	35
400 Series Stainless Steels - Martensitic					
CA-6NM		12 Cr, 4 Ni	755	550	15
CA-15	410	12 Cr, 0.15 C max	620	450	18
CA-15M		12 Cr, 0.15 C max with Mo	620	450	18
CA-40	420	12 Cr, 0.20-0.40 C	690	485	15
CA-40F	420 FM	12 Cr, 0.20-0.40 C – Free machining	690	485	12
Precipitation Hardening Stainless Steels					
CB7Cu-1	17-4PH	17 Cr, 4 Ni, 3 Cu, 0.15-0.35 Nb	1170	1000	5
CB7Cu-2	15-5PH	15 Cr, 5 Ni, 3 Cu, 0.15-0.35 Nb	1170	1000	5
Duplex Stainless Steels					
CD3MN	2205	22 Cr, 5 Ni, 3 Mo, 0.10-0.30 N	620	415	25
CD4MCu		25 Cr, 5 Ni, 2 Mo, 3 Cu	690	485	16
CD4MCuN		25 Cr, 5 Ni, 2 Mo, 3 Cu – with N	690	485	16
CE3MN	2507	25 Cr, 7 Ni, 4.5 Mo, 0.10-0.30 N	690	515	18
Heat Resistant Stainless Steels					
HC	446	28 Cr	380	-	-
HD		28 Cr, 5 Ni	515	240	8
HE		29 Cr, 9 Ni	585	275	9
HF		19 Cr, 9 Ni	485	240	25
HH	309	25 Cr, 12 Ni	515	240	10
HI		28 Cr, 15 Ni	485	240	10
HK	310	25 Cr, 20 Ni	450	240	10
HL		29 Cr, 20 Ni	450	240	10
HN		20 Cr, 25 Ni	435	-	-
HP		26 Cr, 35 Ni	430	235	4.5
HT		15 Cr, 35 Ni	450	-	4
HU		19 Cr, 39 Ni	450	-	4
HW		12 Cr, 60 Ni	415	-	-
HX		17 Cr, 66 Ni	415	-	-
Nickel Alloys					
CW-12MW	Hastelloy	17 Cr, 17 Mo, 5 W, 0.30 V, Rem Ni	495	275	4
CY-40	Inconel	15.5 Cr, Rem Ni	485	195	30
M-35	Monel	65 Ni, 30 Cu	450	170	10



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Carbon & Low Alloy Steels					
IC 1020	1020	0.20 C	414	276	24
IC 1030	1030	0.30 C	586	414	10
IC 1040	1040	0.40 C	689	621	10
IC 1050	1050	0.50 C	862	689	5
IC 4130	4130	0.30 C, 1 Cr, 0.20 Mo	1030	793	7
IC 4140	4140	0.40 C, 1 Cr, 0.20 Mo	1241	1000	5
IC 4330	4330	0.30 C, 0.80 Cr, 1.80 Ni, 0.25 Mo	1030	793	7
IC 4340	4340	0.40 C, 0.80 Cr, 1.80 Ni, 0.25 Mo	1241	1000	5
IC 4620	4620	0.20 C, 1.80 Ni, 0.25 Mo	827	689	10
IC 6150	6150	0.50 C, 1 Cr, 0.15 V min	1310	1172	4
IC 8620	8620	0.20 C, 0.60 Cr, 0.60 Ni, 0.20 Mo	724	586	10
IC 8630	8630	0.30 C, 0.60 Cr, 0.60 Ni, 0.20 Mo	1030	793	7
IC 52100	52100	1 C, 1.50 Cr	-	-	-
WCA		0.25 C, 0.70 Mn max	415	205	24
WCB		0.30 C, 1 Mn max	485	250	22
WCC		0.25 C, 1.20 Mn max	485	275	22
WC1		C, Mo	450	240	24
WC4		Ni, Cr, Mo	485	275	20
WC6		Cr, Mo	485	275	20
C12A		Cr, Mo, V	585	415	20
Tool Steels					
A Series		Medium alloy air hardening cold work	-	-	-
D Series		High-C, high-Cr cold work	-	-	-
H Series		Cr hot work	-	-	-
L Series		Low alloy special purpose	-	-	-
M Series		Mo high speed	-	-	-
P Series		Mold steels	-	-	-
W Series		Water hardening	-	-	-
Cast Irons					
L-NiCuCr 15 6 2		Flake graphite austenitic iron	-	-	-
L-NiCr 20 2		Flake graphite austenitic iron	-	-	-
L-NiCr 30 3		Flake graphite austenitic iron	-	-	-
L-Ni 35		Flake graphite austenitic iron	-	-	-
S-NiCr 20 2		Spheroidal graphite austenitic iron	370	-	7
S-NiCr 30 3		Spheroidal graphite austenitic iron	370	-	7
S-Ni 35		Spheroidal graphite austenitic iron	370	-	20
S-NiCr 35 3		Spheroidal graphite austenitic iron	370	-	7
SG60-40-18		Spheroidal graphite austenitic iron	414	276	18
SG120-90-02		Spheroidal graphite martensitic iron	827	621	2
NiCr 1-550		Abrasion resistant white iron	-	-	-
NiCr 4-600		Abrasion resistant white iron	-	-	-
CrMo 15 3		Abrasion resistant white iron	-	-	-
Cr 27		Abrasion resistant white iron	-	-	-
Copper Alloys					
C83800		LG1 Leaded gunmetal	180	80	11
C86500		HTB1 High tensile brass	450	170	20
C87300		Silicon bronze	310	124	20
C90700		PB1 Phosphor bronze	220	130	3
C92600		G1 Gunmetal	270	130	13
C95200		AB1 Aluminium bronze	450	170	20



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Cobalt Alloys					
Hybolt 2		Stellite series	-	-	-
Hybolt 6		Stellite series	-	-	-
Hybolt 6A		Stellite series	-	-	-
Hybolt 12		Stellite series	-	-	-
Aluminium Alloys					
401		High Si	160	-	5
601		0.35 Mg – heat treatable	205	-	3
603		0.55 Mg – heat treatable	270	-	1