

Al base alloys

Alloy Group	Alloy ID	UNS ID	Alloy Group	Alloy ID	UNS ID
Aluminum	1100 Al	A91100	Aluminum	6063 Al	A96063
Aluminum	2011 Al	A92011	Aluminum	6082 Al	A96082
Aluminum	2014 Al	A92014	Aluminum	6253 Al	A96253
Aluminum	2018 Al	A92018	Aluminum	6262 Al	A96262
Aluminum	2024 Al	A92024	Aluminum	7039 Al	A97039
Aluminum	2099 Al	A92099	Aluminum	7050/7150 Al	A97050++
Aluminum	3002 Al	A93002	Aluminum	7055 Al	A97055
Aluminum	3003 Al	A93003	Aluminum	7075/7475 Al	A97075++
Aluminum	3004 Al	A93004	Aluminum	7085 Al	A97085
Aluminum	4032 Al	A94032	Aluminum	7178 Al	A97178
Aluminum	4145 Al	A94145	Aluminum	A319	A03190
Aluminum	5005 Al	A95005	Aluminum	A332/333	A03320++
Aluminum	5052 Al	A95052	Aluminum	A355.2	
Aluminum	5083/5086 Al	A95083++	Aluminum	A356/357	A03560
Aluminum	5356/5056 Al	A95356++	Aluminum	A360	A03600
Aluminum	5454 Al	A95454	Aluminum	A380	A03800
Aluminum	6013 Al	A96013	Aluminum	A390	A03900
Aluminum	6022 Al	A96022	Aluminum	A413.2	A04130
Aluminum	6040 Al	A96040	Aluminum	A535.2	A05352
Aluminum	6061 Al	A96061			



Fe base alloys (page 1 of 2)

Alloy Group	Alloy ID	UNS ID	Alloy Group	Alloy ID	UNS ID
Low Alloy	3310	G33106	Tool Steel	M-3	T11313
Low Alloy	4130	G41300	Tool Steel	M-4	T11304
Low Alloy	4140	G41400	Tool Steel	M-34	T11334
Low Alloy	4620	G46200	Tool Steel	M-35	none
Low Alloy	4820	G48200	Tool Steel	M-36	T11336
Low Alloy	8620	G86200	Tool Steel	M-42	T11342
Low Alloy	1000 Series LAS	G10xx0	Tool Steel	M-48	T11348
Low Alloy	1100 Series LAS	G11xx0	Tool Steel	M-50	T11350
Low Alloy	1215	G121500	Tool Steel	M-52	T11352
Low Alloy	4340/L-6	G43400	Tool Steel	O-1	T31501
Low Alloy	E52100	G52986	Tool Steel	O-2	T31502
Low Alloy	E6150	G61500	Tool Steel	O-6	T31506
Low Alloy	E9310	G93106	Tool Steel	O-7	T31507
Low Alloy	Iron/CarbonSteel	various	Tool Steel	S-1	T41901
Cr-Mo Steel	1 1/4 Cr/P11	K11597	Tool Steel	S-5	T41905
Cr-Mo Steel	2 1/4 Cr/P22	K21590	Tool Steel	S-6	T41906
Cr-Mo Steel	5 Cr/P5	K41545	Tool Steel	S-7	T41907
Cr-Mo Steel	7 Cr	S50300	Tool Steel	T-1	T12001
Cr-Mo Steel	9 Cr/P9	K90941	Tool Steel	T-15	T12015
Cr-Mo Steel	C-1/2 Mo	K12822	Tool Steel	T-4	T12004
Cr-Mo Steel	P91	K90901	Tool Steel	T-5	T12005
Cr-Mo Steel	Pyrowear 53	K71040	Stainless	13-8 PH	S13800
Tool Steel	A-10	T30110	Stainless	14-4 PH	J92240
Tool Steel	A-2	T30102	Stainless	15-5 PH	S15500
Tool Steel	A-6	T30106	Stainless	15-7 Mo	S15700
Tool Steel	A-7	T30107	Stainless	15Mn-17Cr	none
Tool Steel	A-9	T30109	Stainless	17-4 PH	S17400
Tool Steel	D-2/D-4	T30402++	Stainless	17-7 PH	S17700
Tool Steel	D-7	T30407	Stainless	19-9 DL	S63198
Tool Steel	H-11	T20811	Stainless	19-9 DX	S63199
Tool Steel	H-12	T20812	Stainless	201SS	S20100
Tool Steel	H-13	T20813	Stainless	202SS	S20200
Tool Steel	H-14	T20814	Stainless	203SS	S20300
Tool Steel	H-21	T20821	Stainless	204SS	S20400
Tool Steel	L-6/4340	T61206	Stainless	20Cb3	N08020
Tool Steel	M-1	T11301	Stainless	2205SS	S31803
Tool Steel	M-2	T11302	Stainless	2507SS	S32750



Fe base alloys (page 2 of 2)

Alloy Group	Alloy ID	UNS ID
Stainless	253MA	S30815
Stainless	25-4-4	S44635
Stainless	254SMO	S31254
Stainless	26-1 Ebrite	S44626
Stainless	29-4	S44700
Stainless	29-4-2	S44800
Stainless	301SS	S30100
Stainless	303SS	S30300
Stainless	304SS	S30400
Stainless	309SS	S30900
Stainless	310SS	S31000
Stainless	316 Ti	S31635
Stainless	316SS	S31600
Stainless	317SS	S31700
Stainless	321SS	S32100
Stainless	329SS	S32900
Stainless	347SS	S34700
Stainless	409SS	S40900
Stainless	410/420SS	S41000
Stainless	416SS	S41600
Stainless	422SS	S42200
Stainless	430/440SS	S43000++
Stainless	431SS	S43100
Stainless	434SS	S43400
Stainless	441SS	S44100
Stainless	446SS	S44600
Stainless	A286	S66286
Stainless	AL-6X	N08366
Stainless	AM 350	S35000
Stainless	AM 355	S35500
Stainless	CD4MCU	J93370
Stainless	Custom 450	S45000
Stainless	Custom 455	S45500
Stainless	Ferrallium	S32550
Stainless	Greek Ascology	S41800
Stainless	HL	N08604
Stainless	HN	J94213

Alloy Group	Alloy ID	UNS ID
Stainless	HS556	R30556
Stainless	N-155	R30155
Stainless	Nitronic32	S24100
Stainless	Nitronic33	S24000
Stainless	Nitronic40	S21900
Stainless	Nitronic50	S20910
Stainless	Nitronic60	S21800
Stainless	RA 330	N08330
Stainless	Zeron 100	S32760
Special	Alloy 20	none
Special	Alloy 42	K94100
Special	Alloy 49	none
Special	Alloy 52	N14052
Special	Alnico II	none
Special	Alnico III	none
Special	Alnico V	none
Special	Inco 800	N08800
Special	Inco 801	N08801
Special	Inco 840	none
Special	Inco 903	N19903
Special	Inco 904	N08904
Special	Inco907/909	N19907/9
Special	Invar 36	K93600
Special	Invar 39	none
Special	KOVAR	K94610
Special	Marag 250	K92890
Special	Marag 300	K93120
Special	Marag 350	none
Special	Marag C 200	K92820
Special	Ni-Hard 1	none
Special	Ni-Hard 4	none
Special	Ni-Resist 1	F47004
Special	Ni-Resist 2	F47005
Special	Ni-Resist 3	none
Special	Ni-Resist 4	none
Special	Ni-Resist 5	none
Special	Ni-Span-C	N09902

Ni base alloys (page 1 of 2)

Alloy Group	Alloy ID	UNS ID	Alloy Group	Alloy ID	UNS ID
Nickel	20Mo4	N08024	Nickel	Inco 600	N06600
Nickel	20Mo6	N08026	Nickel	Inco 601	N06601
Nickel	B-1900	none	Nickel	Inco 617	N06617
Nickel	B-1900Hf	none	Nickel	Inco 625	N06625
Nickel	C 1023	none	Nickel	Inco 686	N06686
Nickel	C-101	none	Nickel	Inco 690	N06690
Nickel	CMSX-2/3	none	Nickel	Inco 700	none
Nickel	CMSX-4	none	Nickel	Inco 702	N07702
Nickel	CMSX-6	none	Nickel	Inco 706	N09706
Nickel	D 979	N09979	Nickel	Inco 713	N07713
Nickel	D-205	none	Nickel	Inco 718	N07718
Nickel	Hast B-2	N10665	Nickel	Inco 722	N07722
Nickel	Hast B	N10001	Nickel	Inco 725	N07725
Nickel	Hast C2000	N06200	Nickel	Inco 738	none
Nickel	Hast C-22	N06022	Nickel	Inco 754	N07754
Nickel	Hast C-276	N10276	Nickel	Inco 792	none
Nickel	Hast C-4	N06455	Nickel	Inco 825	N08825
Nickel	Hast D	none	Nickel	Inco 901	N09901
Nickel	Hast F	N06001	Nickel	Inco 925	N09925
Nickel	Hast G	N06007	Nickel	Inco 939	none
Nickel	Hast G-2	N06975	Nickel	Inco X-750	N07750
Nickel	Hast G-3	N06985	Nickel	M252	N07252
Nickel	Hast G-30	N06030	Nickel	Mar M 002	none
Nickel	Hast N	N10003	Nickel	Mar M 200	N13009
Nickel	Hast R	none	Nickel	Mar M 246	none
Nickel	Hast S	N06635	Nickel	Mar M 247	none
Nickel	Hast W	N10004	Nickel	Monel 400/405	N04400
Nickel	Hast X	N06002	Nickel	Monel 401	N04401
Nickel	Haynes 214	N07214	Nickel	Monel 411	none
Nickel	Haynes 230	N06230	Nickel	Monel K500	N05500
Nickel	Haynes 242	N10242	Nickel	MP-35-N	R30035
Nickel	Haynes 59	none	Nickel	Mu Metal	none
Nickel	HR-160	N12160	Nickel	N4M2	none
Nickel	HW6015	none	Nickel	NA 22H	none
Nickel	Hy Mu 80	none	Nickel	Sup22H	none
Nickel	IN-100	N13100	Nickel	Ni-200	N02200
Nickel	Inco 102	N06102	Nickel	Nichrome V	N06003

Ni base alloys (page 2 of 2)

Alloy Group	Alloy ID	UNS ID
Nickel	Nimonic 105	none
Nickel	Nimonic 115	none
Nickel	Nimonic 75	N06075
Nickel	Nimonic 80	N07080
Nickel	Nimonic 90	N07090
Nickel	Nimonic263	N07263
Nickel	PWA 1480	none
Nickel	RA 333	N06333
Nickel	Refract 26	none
Nickel	Rene 125	none
Nickel	Rene 142	none
Nickel	Rene 220	none

Alloy Group	Alloy ID	UNS ID
Nickel	Rene 41	N07041
Nickel	Rene 77	none
Nickel	Rene 80	none
Nickel	Rene 85	none
Nickel	Rene 95	none
Nickel	SuperTherm	none
Nickel	Thetalloy	none
Nickel	Udimet 500	N07500
Nickel	Udimet 520	N07520
Nickel	Udimet 700	none
Nickel	Waspaloy	N07001

Co base alloys

Alloy Group	Alloy ID	UNS ID	Alloy Group	Alloy ID	UNS ID
Cobalt	CP Co	none	Cobalt	ST-19	none
Cobalt	Elgiloy	R30003	Cobalt	ST-21	R30021
Cobalt	F-75	R30075	Cobalt	ST-23	R30023
Cobalt	FSX-414	none	Cobalt	ST25/L605	R30605
Cobalt	Inco 783	R30783	Cobalt	ST-27	R30027
Cobalt	Jetalloy	none	Cobalt	ST-3/ST-4	R30103/R30404
Cobalt	Mar M 302	none	Cobalt	ST-30	R30030
Cobalt	Mar M 509	none	Cobalt	ST31/X40	R30031
Cobalt	Mar M 905	none	Cobalt	ST-36	R30036
Cobalt	MP-159	R30159	Cobalt	ST-6B	R30016
Cobalt	Refract 80	none	Cobalt	Star J	R30102
Cobalt	S816	R30816	Cobalt	Ultimet	R31233
Cobalt	ST-1	R30001	Cobalt	Vic I	none
Cobalt	ST-12	R30012	Cobalt	Vic II	none
Cobalt	ST-188	R30188	Cobalt	WI-52	none

Cu base alloys

Alloy Group	Alloy ID	UNS ID	Alloy Group	Alloy ID	UNS ID
Copper	C110	C11000	Copper	C667-Mn Brs	C66700
Copper	Be Cu	Various	Copper	C675-Mn BrzA	C67500
Copper	C210-Gldg	C21000	Copper	C687-Al Brs	C68700
Copper	C220-ComBrz	C22000	Copper	C693-EcoBrs	C69300
Copper	C240-Low Brs	C24000	Copper	C706 90-10	C70600
Copper	C260-Cart Brs	C26000	Copper	C710 80-20	C71000
Copper	C270-Ylw Brs	C27000	Copper	C715 70-30	C71500
Copper	C27450-Ylw Brs	C27450	Copper	C745-Ni-Ag	C74500
Copper	C310-Pb Brs	C31000	Copper	C752-Ni-AG	C75200
Copper	C314-Pb Brz	C31400	Copper	C836 85-5-5-5	C83600
Copper	C330-Pb Brs	C33000	Copper	C84400-Semi-Red Brs	C84400
Copper	C332-Pb Brs	C33200	Copper	C857-Ylw Brs	C85700
Copper	C340-Pb Brs	C34000	Copper	C863-Mn Brz	C86300
Copper	C342-Pb Brs	C34200	Copper	C864-Mn Brz	C86400
Copper	C360-Fre Cut Brs	C36000	Copper	C867-Mn Brz	C86700
Copper	C37100-Pb Brs	C37100	Copper	C868-Mn Brz	C86800
Copper	C37700-Pb Brs	C37700	Copper	C87600-Si Brs	C87600
Copper	C425-Sn Brs	C42500	Copper	C87800-Si Brz	C87800
Copper	C443-Adm Brs	C44300	Copper	C87850-Si Brz	C87850
Copper	C464-Nvl Brs	C46400	Copper	C893-SnBiBrz	C89320
Copper	C482-Nvl Brs	C48200	Copper	C89510 Enviro I	C89510
Copper	C485-Nvl Brs	C48500	Copper	C89520 Enviro II	C89520
Copper	C510-P BrzA	C51000	Copper	C89550 Enviro III	C89550
Copper	C524-P Brz	C52400	Copper	C903-Sn Brz	C90300
Copper	C534-P BrzB1	C53400	Copper	C922-Pb Sn Brz	C92200
Copper	C544-P BrzB2	C54400	Copper	C932-Sn Brz	C93200
Copper	C614-Al Brz	C61400	Copper	C937-Pb Sn Brz	C93700
Copper	C623-Al Brz	C62300	Copper	C954-Al Brz	C95400
Copper	C630-Al Brz	C63000	Copper	C955-Al Brz	C95500
Copper	C642-Si Al Brz	C64200	Copper	Narloy Z	none
Copper	C655-Si BrzA	C65500			

Ti base alloys

Alloy Group	Alloy ID	UNS ID
Titanium	Beta-C	R58640
Titanium	CP Ti	R50700
Titanium	CP Ti Pd	R52250
Titanium	Ti 10-2-3	R56410
Titanium	Ti 13-11-3	R58010
Titanium	Ti 15-3-3-3	R58153
Titanium	Ti 3-2.5	R56320
Titanium	Ti 5-2.5	R54520
Titanium	Ti 6-2-1-1	R56210
Titanium	Ti 6-22-22	none

Alloy Group	Alloy ID	UNS ID
Titanium	Ti 6-2-4-2	R54620
Titanium	Ti 6-2-4-6	R56260
Titanium	Ti 6-4	R56400
Titanium	Ti 6-6-2	R56620
Titanium	Ti 8-1-1	R54810
Titanium	Ti 8-8-2-3	none
Titanium	Ti-12	R53400
Titanium	Ti-17	R58650
Titanium	Ti-8	R56080

Misc. base alloys (page 1 of 2)

Base	Alloy Group	Alloy ID	UNS ID
Ag	Generic	Ag	P0701x
Au	Generic	Yellow 8K Gold	
Au	Generic	White 8K Gold	
Au	Generic	Red 8K Gold	
Au	Generic	Yellow 9K Gold	
Au	Generic	White 9K Gold	
Au	Generic	Red 9K Gold	
Au	Generic	10 karat Gold	P0010x
Au	Generic	14 karat Gold	P0015x
Au	Generic	18 karat Gold	P0025x
Au	Generic	22 karat Gold	none
Au	Generic	24 karat Gold	none
Pt	Generic	Pt	none
Pd	Generic	Pd	none
Zr	Generic	CP Zr	R60001
Zr	Generic	Zr 702	R60702
Zr	Generic	Zr 704	R60704
Zr	Generic	Zr 705	R60705
Zr	Generic	Zr-2	R60802
Zr	Generic	Zr-4	R60804
Nb	Generic	Nb -Cb	R04200
Nb	Generic	Cb 103	R04295
Ta	Generic	Ta	R05200
Ta	Generic	97Ta-3W	R05252
Ta	Generic	90Ta-10W	R05255
W	Generic	W	R07005
W	Generic	Densalloy	none
W	Generic	TungCar C	none
W	Generic	Hevimet	none
W	Generic	Mal 1000B	none
W	Generic	Mal 3000	none
W	Generic	70W 30Mo	none
W	Generic	Mal 3950	none

Misc. base alloys (page 2 of 2)

Base	Alloy Group	Alloy ID	UNS ID
Zn	Generic	99.5% Zn	various
Zn	Generic	Galvanizing	various
Zn	Generic	Zamak 2	Z3554x
Zn	Generic	Zamak 3	Z3352x
Zn	Generic	Zamak 5	Z3553x
Zn	Generic	ZA-8	Z35635
Zn	Generic	ZA-12	Z35630
Zn	Generic	ZA-27	Z35841
Mg	Generic	CP Mg	none
Mg	Generic	AM60	M1060x
Mg	Generic	AS41	M1041x
Mg	Generic	AZ31	M1131x
Mg	Generic	AZ81	M1181x
Mg	Generic	AZ91	M1191x
Mg	Generic	ZE41A	M16410
Pb	Generic	Pure Lead	L500xx
Sn	Generic	Pig Tin	L130xx
Sn	Generic	63Sn-37Pb	L1363x
Sn	Generic	SAC 305	unknown
Sn	Generic	SAC 405	unknown
Sn	Generic	SAC 385	unknown
Sn	Generic	SAC 387	unknown
V	Generic	V	
Cr	Generic	Cr	
Mn	Generic	Mn	
Mo	Generic	Mo	
Se	Generic	Se	
Cd	Generic	99.9% Cd	L019xx
Sb	Generic	Sb	M0099x
Hf	Generic	Hf	
Re	Generic	Re	
Bi	Generic	Bi	

Non-active alloys

Base	Alloy Group	Alloy ID	UNS ID
Al	Aluminum	4043 Al	A94043
Al	Aluminum	4343 Al	A94343
Fe	Low Alloy	12L14	G12144
Fe	Low Alloy	S-TEN1	
Fe	Low Alloy	S-TEN2	
Fe	Low Alloy	S-TEN3	

NOTE: The above alloys are defined in the library, but are NOT activated due to overlap with other more common alloys. For these alloys to become active, users must edit the Grade Library to change the Beam 1 and Beam 2 flags to "Y".