

CATEGORY/STANDARD	ASTM
High Leaded Brass	C34500
Forging Brass	C37700
Threaded Rolling Brass	C35300
Free Cutting Muntz Metal	C37000
Architectural Bronze	C38500
Architectural Bronze	C38000

CATEGORY/STANDARD	ASTM
Naval Brass	C46200
Naval Brass	C46400
Naval Brass	C48200
Naval Brass	C48500

CATEGORY/STANDARD	ASTM
Nickel Silver Brass	C77400
Nickel Silver Brass	C77600
Nickel Silver Brass	C79800
Nickel Silver	C79860

CATEGORY/STANDARD	ASTM
Cartridge Brass Yellow Brass	C26000
Yellow Brass	C27000
Yellow Brass	C27200
Yellow Brass	C27400
Yellow Brass	C27450
Yellow Brass	C27451
Yellow Brass	C28500

CATEGORY/STANDARD	ASTM
High Tensile Brass	-
High Tensile Brass	-
High Tensile Brass	-
High Tensile Brass	-
High Tensile Brass	C67400
High Tensile Brass	C67500

CATEGORY/STANDARD	ASTM
Aluminum Brass	C68700
Admiralty Brass	C44300
Manganese Brass	C66800
Manganese Brass	C66700
Silicon Brass	

Silicon Red Brass	C69400
Silicon Red Brass	C69430
Red Brass	C22000
Red Brass	C23000
Red Brass	C24000

CATEGORY/STANDARD	ASTM
Lead Free Brass	C27450
Muntz Metal	C28000
Low Leaded Brass	C33000
Eco Brass	C69300
DZR Brass (Dezincification Resistant Brass)	C35330
Dezincification Resistant Forging Brass	C48600
Copper-Lead-Zinc Alloy	C36300
Leaded Muntz Metal	C36500

ISO 24373:2008	
Numerical Symbol	Chemical Symbol
Cu 4641	CuZn40SnSi
Cu 4700	CuZn40Sn
Cu 6800	CuZn40Ni
Cu 6810	CuZn40Fe1Sn1
Cu 7730	CuZn40Ni10Sn1

Brass Alloys

Leaded Brass (General Reference Density 8.5 Gm/Cm3)

BS	EN	JIS
CZ131 / CZ119	CW601N / CuZn35Pb2	C3560
CZ120	CW608N / CW617N	C3771 BE
CZ119	CW606N / CW602N	H3260(92)C3501 W
CZ124	CW607N	H3100(92)C3713
CZ121	CW614N	C3603
CZ122	CW618N	H3100 C3561

Naval Brass (General Reference Density 8.44 Gm/Cm3)

BS	EN	JIS
CZ112		H3100(92)C4621 P
CZ114	CW719R	H3100(92)C4640 BE
	CW714R	
CZ134	CW711R	

Nickel Silver Brass (General Reference Density 8.6 Gm/Cm3)

BS	EN	JIS
	CW400J	
	CW407J / CW408J	

Yellow Brass (General Reference Density 8.45 Gm/Cm3)

BS	EN	JIS
CZ106	CW505L	H3250(92)C2600 BE
CZ107	CW507L	H3250(92) C2700 BE
CZ108	CW507L	H3100(92)C2720
CZ108	CW508L	H3100(92)C2720
CZ109	CW509L	
	CW510L	

High Tensile Brass (General Reference Density 8.45 Gm/Cm3)

BS	EN	JIS
BS1400 HTB1	CC765S	-
IS:304 HTB2	-	-
IS:304 HTB3	CC762S	-
CZ115	CW722 R	-
CZ135	CW713 R	C6782
CZ114	CW721 R	-

Other Brass (General Reference Density 8.45 Gm/Cm3)

BS	EN	JIS
CZ110	CW702R	H3300(92) C6870 T
CZ111	CW706R	H3100(92) C4430 P/R
CZ110		
	CW708 R	

CW501L
 CW502L
 CW503L

DZR Brass (Dezincification Resistant Brass) / Low Leaded Brass (General Reference Density 8.

BS	EN	JIS
CZ121		
CZ109	CW509L	C2801
	CW705R	
	CW724R	6931
CZ132	CW602N	
CZ111		C4430
	CW508L	
CZ123	CW610N	

Brass Brazing

USA		Japan
AWS A5.7/A5.7M:2007 / AWS A5.8/A5.8M:2004	UNS	JIS Z3341:1999 / JIS Z3202:1999
RBCuZn-A	C47000	GCuZnSn
RBCuZn-B	C68000	
RBCuZn-C	C68100	
RBCuZn-D	C77300	GCuZnNi

DIN	ISO	IS
	2.0331 CuZn34Pb2	
	2.038 1634-CuZn38Pb2	IS3488 / IS6912 FLB
CuZn44Pb2	1639-CuZn43Pb2	
	2.0372	
CuZn39Pb3	1637-CuZn39Pb3	IS:319 Grade 1
CuZn39Pb2	1634-CuZn39Sn1	

DIN	ISO	IS
		IS 291 GRADE 1
	2.053 1634-CuZn38Sn1	
CuZn37Pb1Sn1	426-1 CuZn37pb1Sn1	IS 291 GRADE 2
	2.0371 CuZn39Pb2Sn	

DIN	ISO	IS
	2.077 1637-CuNi10Zn42Pb2	
	2.075 CuNi12Zn37Mn6Pb2	

DIN	ISO	IS
	2.0265 CuZn30	IS 4170 CuZn30 / IS 4413 CuZn30
	2.0335 CuZn36	IS 2704 CuZn35
2.0321 / CuZn37 / CuZn36	1637-CuZn37	IS 4413 CuZn37
CuZn37	1634-CuZn37	
	2.036 CuZn37	
	CuZn42	

DIN	ISO	IS
2-034	CUZN35MN2ALFE1-C	IS 304 HTB 1
-	CuZn36Al4FeMn	-
CuZn35Al5	CuZn25Al5Mn4Fe3-C	IS 304 HTB 2
-	-	IS 320 HT1
	2.055 CuZn40Al2	-
-	CuZn39AlFeMn	IS 320 HT2

DIN	ISO	IS
	2.046	IS 1545 / CuZn21Al2As
	2.047 CuZn28Sn1	IS 1545 / CuZn29Sn1As

2.049 / CuZn31Si1

IS 11109 GRADE 1

IS 11109 GRADE 1

CuZn10

CuZn15

CuZn20

.44 Gm/Cm3)

DIN	ISO	IS
CuZn40	CuZn37 1634-CuZn40 C330 CuZn21Si3P 2.0375 CuZn36Pb2As 2.0371 CuZn28Sn1 CuZn37 1634-CuZn40Pb	

	Europe	Germany
EN 13347:2002	EN 14640:2005	DIN 1733-1:1998
CuZn40FeSiSn	CuZn40SnSi	
CuZn40Sn1	CuZn40	
CuZn39Fe1Sn1MnNiSi	CuZn40Ni	
CuZn40FeSiSn	CuZn40SnSi	2.0366
	CuZn40Ni10	

Bronze Alloys

Aluminum Bronze (General Reference Density)

CATEGORY/STANDARD	ASTM	BS	EN	JIS
Aluminum Bronze	C61400	CA106	CW303G	H3100(92) C6140 P
Aluminum Bronze	C62500	CA103		
Aluminum Bronze	C61800		CW305G	Z3341(93)-YCuAl
Aluminum Bronze "9A"	C95200		CC331G	
Aluminum Bronze	C62300	CA103	CW306G	H3100(92) C6161 BE/BD/BF
Aluminum Bronze "9C"	C95400	AB1-C		H5114
Aluminum Bronze	C62400	CA106		
Aluminum Bronze	C95900	CW304G		H5111-BC1

Silicon Aluminum Bronze (General Reference Density)

CATEGORY/STANDARD	ASTM	BS	EN	JIS
Silicon Aluminum Bronze	C63600			
Silicon Aluminum Bronze	C64200	CA107	CW301G	

Silicon Bronze (General Reference Density)

CATEGORY/STANDARD	ASTM	BS	EN	JIS
Silicon Bronze (AMS 4616)	C64200	CA107	CW301G	
Low Silicon Bronze "B"	C65100		CW115C	
High Silicon Bronze "A"	C65500	CS101	CW116C	

High Tensile Manganese Bronze (General Reference Density)

CATEGORY/STANDARD	ASTM	BS	EN	JIS
High Tensile Manganese Bronze	C66800			
High Tensile Manganese Bronze	C67500		CW721 R	
High Tensile Manganese Bronze B	C67000		CW400J	
High Tensile Manganese Bronze	C67600			
High Tensile Manganese Bronze	C67300			
High Tensile Manganese Bronze	C86200			
High Tensile Manganese Bronze	C86300	BS 1400 HTB3	CC762S	HBSC4
High Tensile Manganese Bronze	C86500	BS 1400 HTB3	CC765S	HBSC4

Nickel Aluminum Bronze (General Reference Density)

CATEGORY/STANDARD	ASTM	BS	EN	JIS
Nickel Aluminum Bronze	C63000	CA104,CA105	CW307G	H3100(92) C6280 P
Alpha Nickel Aluminum Bronze	C95800	CA104	AB1	H2206(00) AlBCIn2
Nickel Aluminum Bronze	C63020	CA104	CW307G	H3100 C6301
Nickel Tin Bronze Spinodal	C96900		CW302G	
Nickel Aluminum Bronze	C63200	CA104	CW307G	CAC303 (HBsC3)
Nickel Aluminum Bronze 9D	C95500	AB2-C	CC333G	H2206(00)-AlBCIn3
NES 833 - Nickel Aluminum Bronze	C62730	CA 104	CW307G	C6301

Leaded Commercial Bronze (General Reference Density)

CATEGORY/STANDARD	ASTM	BS	EN	JIS
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Leaded Commercial Bronze C31400
 Nickel Leaded Commercial C31600

Phosphorus Bronze (General Reference Dens

CATEGORY/STANDARD	ASTM	BS	EN	JIS
Phosphorus Bronze	C51000	PB102	CW451K	C5102 / 3270
Phosphorus Bronze	C53400		CW458K	H3270(92) C5341 B
Phosphorus Bronze	C51080			H3110(92) C5102 P/R
Phosphorus Bronze	C51800		CW457K	H3270(92) C5102 B
Phosphorus Bronze	C51900	PB103	CW452K	H3110(92) C5191 P/R
Phosphorus Bronze	C51980	C11		
Phosphorus Bronze	C52100	PB104	CW453K	H3110(92) C5212 P/R
Phosphorus Bronze	C52180		CW460K	Z3441(93) YCuSn B
Phosphorus Bronze	C52400			
Phosphorus Bronze	C52480			
Phosphorus Bronze	C90710	PB1	CC481K	
Phosphorus Bronze	C90810	PB2	CC483K	

ity 7.5 Gm/Cm3)

DIN	ISO	IS
2.0932	1634-CuAl8Fe3	
2.094	1640 -CuAl10Fe	
2.0941	1338-CuAl10Fe2	IS:305 AB1
2.0966	CuAl10Fe3	IS 10569 CuAl10Fe3 IS 3091:1999
2.0962	4382-2 - CuSn8P	

ensity 8.5 Gm/Cm3)

DIN	ISO	IS
	CuAl3Si	
CuAl7Si2	CuAl7Si2	IS 10569 CuAl7Si2

y 8.5 Gm/Cm3)

DIN	ISO	IS
CuAl7Si2	CuAl7Si2	
2.049	1187-CuSi1	
2.1525	R1187-CuSi3Mn1	

ensity 8.36 Gm/Cm3)

DIN	ISO	IS
		CuZn39AlFeMn
2.077	1637-CuNi10Zn42Pb2	
2.0525		
2.0598	CuZn25Al6Fe3Mn3 / CuZn25Al5	
2.034	CuZn35AlFeMn	

ensity 7.6 Gm/Cm3)

DIN	ISO	IS
2.0966	1634-2-CuAl10Ni5Fe4	IS10569 CuAl10Fe5Ni5
2.0976	CuAl10Fe5Ni5	IS:305 AB2
2.0978	1338- CuAl11Ni5Fe5	
2.0978	1637-CuAl10Fe5Ni5	
2.094	1338-CuAl10Fe5Ni5	
2.0966	CuAl10Ni5Fe4	

ensity 8.84 Gm/Cm3)

DIN	ISO	IS
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CuZn9Pb2

ensity 8.85 Gm/Cm3)

DIN	ISO	IS
CuSn4	1634-CuSn5	IS 7811
CuSn5Pb1	CuSn5Pb1	
CuSn4Te1P		
2.1025	CuSn6	IS 7814 Grade III
2.102	CuSn6	
2.101/2.103	CuSn8	IS 7814 Grade IV
	CuSn8P	
2.105	427 - CuSn10	
	CuSn11P-C	
CuSn12		

Copper Alloys

Chromium Zirconium Copper (General Reference Dens

CATEGORY/STANDARD	ASTM	BS	EN	JIS	DIN
Zirconium Copper	C15000		CW120C	Z3234(99)-CuZr	2.158
Copper Chromium Nickel Silicon	C18000	DTD498	CW111C		2.0855
Copper Chromium Zirconium	C18150	CC102	CW106C		2.1293
Chromium Copper	C18200	CC101	CW105C		2.1291

Copper Nickel (General Reference Density 8.94

CATEGORY/STANDARD	ASTM	BS	EN	JIS	DIN
CuNi2.2	C70200				
CuNi11	C70800				
Copper Nickel 95/5	C70400	CN101		C2532-GCN10	
Copper Nickel	C71500	CN107	CW354H	H3300(92)-C7164 T	2.0882
CuNi6	C70500	CN102			
Copper Nickel 90/10	C70600	CN102	CW352H	Z3341(93)-YCuNi-1	2.0872

Other Copper (General Reference Density 8.94

CATEGORY/STANDARD	ASTM	BS	EN	JIS	DIN
Electrolytic Tough Pitch (ETP)	C11000	C101	CW004A	H3250(92)-C1100 BE	2.006
Phosphorus Deoxidized	C12000	C106	CW009A	H3300(92)-C1201 T	2.0076
Tellurium Copper	C14500	C109	CW118C		2.1546
Low Leaded Nickel Copper	C19140				
DHP COPPER	C12200	C12200	CW024A	C1220	2.009
DLP COPPER	C12000		CW023A	C1201	2.0076
Leaded Nickel Copper	C19160				

ensity 8.89 Gm/Cm3)

ISO	IS
CuZr	IS 8365 CuZr
CuNi2Si	
CuCr1Zr	IS 8365 CuCrZr
1640-CuCr1	IS 8365 CuCr

Gm/Cm3)

ISO	IS
	IS 8362 95/5
1634-CuNi30Mn1Fe	IS 8362 70/30
1634-CuNi10Fe1Mn	IS 8362 90/10

Gm/Cm3)

ISO	IS
R1337-CuETP	IS191 - CuETP / IS 6912 - ETP
Cu-DLP	
1637-CuTe	IS 8328
CuNiPbP	
Cu-DHP	IS:191 Cu-DHP
Cu-DLP	IS 1545 Cu-DLP
CuNi1Pb1P	