Indian stanadard

Copper Alloys	Cu	Sn	Pb	Zn	Fe	Ni	P	Al	Mn	Si	Sb	Imp.
Brass IS:8631- 19 77												
Grade-2	55 Min	1	0.5	Rem.	0.7-2	1	-	0.5-2.5	3	0.1	-	-
IS:292-1983												
LCB-1	70-77	1-3	2-5	Rem.	0.5	-	-	0.01	-	-	-	-
LCB-2	63-67	1.5	1-3	Rem.	0.5	-	-	0.01	-	-	-	-

British Standard (BS)

Copper Alloys	Cu	Sn	Pb	Zn	Fe	Ni	P	Al	Mn	Si	Sb	S	Bi	Imp
Brass														
DCB 1	59-63	-	0.25	Rem.	-	-	-	0.5	-	-	-	-	-	0.75
DCB 3	58-63	1	0.5-2.5	Rem.	0.8	1	-	0.2-0.8	0.5	0.05	-	-	-	2
PCB 1	57-60	0.5	0.5-2.5	Rem.	0.3	-	-	0.5	-	-	-	-	-	0.5
SCB 1	70-80	1-3	2-5	Rem.	0.75	1	-	0.01	-	-	-	-	-	1
SCB 3	63-70	1.5	1-3	Rem.	0.75	1	-	0.1	-	-	-	-	-	1
SCB 4	60-63	1-1.5	0.5	Rem.	-	-	-	0.01	-	-	-	-	-	0.75
SCB 6	83-88	-	0.5	Rem.	-	-	-	-	-	-	-	-	-	1

European Standard (EN)														
Copper Alloys	**Cu**	**Sn**	**Pb**	**Zn**	**Fe**	**Ni**	**P**	**Al**	**Mn**	**Si**	**Sb**	**S**	**Bi**	**Cr**
Brass														
CuZn16Si4 (CB761S)	78.5-82	0.25	0.6	Rem.	0.5	1	0.02	0.1	0.2	3-5	0.05	-	-	-
CuZn33Pb2 (CB750S)	63-66	1.5	1-2.8	Rem.	0.7	1	0.02	0.1	0.2	0.04	-	-	-	-

CuZn33Pb2Si (CB751S)	63.5-65.5	0.8	0.8-2	Rem.	0.25-0.50	0.8	-	0.1	0.1	0.70-1	0.05	-	-	-
CuZn35Pb2Al (CB752S)	61.5-65	0.4	1.5-2.4	Rem.	0.3	0.25	-	0.3-0.7	0.15	0.02	0.04-0.12	-	-	-
CuZn37Al1 (CB766S)	60-63	0.4	0.4	Rem.	0.4	1.8	0.02	0.6-1.8	0.4	0.5	0.05	-	-	-
CuZn37Pb2Ni1AlFe (CB753S)	58-60	0.8	1.8-2.5	Rem.	0.5-0.8	0.5-1.2	0.02	0.4-0.8	0.2	0.05	0.05	-	-	-
CuZn38Al (CB767S)	59-64	0.1	0.1	Rem.	0.4	0.8	0.05	0.1-0.8	0.4	0.05	-	-	-	-
CuZn39Pb1Al (CB754S)	58-62	0.1	0.5-2.4	Rem.	0.7	1	0.02	0.1-0.8	0.5	0.05	-	-	-	-
CuZn39Pb1AlB (CB755S)	59-60.5	0.3	1.2-1.7	Rem.	0.05-0.2	0.2	-	0.4-0.65	0.05	0.03	-	-	-	-

German din

Copper Alloys	Cu	Sn	Pb	Zn	Fe	Ni	P	Al	Mn	Si	Sb	S	Imp.
Brass													
CuSn3Zn9(CW454K)	Rem.	1.5-3.5	0.1	7.5-10	0.1	0.2	0.2	-	-	-	-	-	0.2
CuZn10(CW501L)	89-91	0.1	0.05	Rem.	0.05	0.3	-	0.02	-	-	-	-	0.1
CuZn13Al1Ni1Si (CW700R)	81-84	0.1	0.05	Rem.	0.25	0.8-1.4	-	0.7-1.2	0.1	0.8-1.3	-	-	0.5
CuZn15(CW502L)	84-86	0.1	0.05	Rem.	0.05	0.3	-	0.02	-	-	-	-	0.1
CuZn19Sn(CW701R)	80-82	0.2-0.5	0.05	Rem.	0.05	0.3	-	-	-	-	-	-	0.2
CuZn20(CW503L)	79-81	0.1	0.05	Rem.	0.05	0.3	-	0.02	-	-	-	-	0.1
CuZn20Al2	70-72.5	-	0.07	Rem.	0.07	0.1	0.01	1.8-2.3	0.1	-	-	-	0.1
CuZn28(CW504L)	71-73	0.1	0.05	Rem.	0.05	0.3	-	0.02	-	-	-	-	0.1
CuZn28Sn1	70-72.5	0.9-1.3	0.07	Rem.	0.07	0.1	0.01	-	0.1	-	-	-	0.1
CuZn30(CW505L)	69-71	0.1	0.05	Rem.	0.05	0.3	-	0.02	-	-	-	-	0.1
CuZn33(CW506L)	66-68	0.1	0.05	Rem.	0.05	0.3	-	0.02	-	-	-	-	0.1
CuZn35Pb1(CW600N)	62.5-64	0.1	0.8-1.6	Rem.	0.1	0.3	-	0.05	-	-	-	-	0.1
CuZn35Pb2(CW601N)	62-63.5	0.1	1.6-2.5	Rem.	0.1	0.3	-	0.05	-	-	-	-	0.1

CuZn36(CW507L)	63.5-65.5	0.1	0.05	Rem.	0.05	0.3	-	0.02	-	-	-	-	0.1
CuZn36Pb2Sn1 (CW711R)	59.5-61.5	0.5-1	1.3-2.2	Rem.	0.1	0.3	-	-	-	-	-	-	0.2
CuZn36Pb3(CW603N)	60-62	0.2	2.5-3.5	Rem.	0.3	0.3	-	0.05	-	-	-	-	0.2
CuZn36Sn1Pb (CW712R)	61-63	1-1.5	0.2-0.6	Rem.	0.1	0.2	-	-	-	-	-	-	0.2
CuZn37(CW508L)	62-64	0.1	0.1	Rem.	0.1	0.3	-	0.05	-	-	-	-	0.1
CuZn37Pb0.5 (CW604N)	62-64	0.2	0.1-0.8	Rem.	0.1	0.3	-	0.05	-	-	-	-	0.2
CuZn37Pb1(CW605N)	61-62	0.2	0.8-1.6	Rem.	0.2	0.3	-	0.05	-	-	-	-	0.2
CuZn37Pb1Sn1 (CW714R)	59-61	0.5-1	0.4-1	Rem.	0.1	0.3	-	-	-	-	-	-	0.2
CuZn37Pb2(CW606N)	61-62	0.2	1.6-2.5	Rem.	0.2	0.3	-	0.05	-	-	-	-	0.2
CuZn38Pb1(CW607N)	60-61	0.2	0.8-1.6	Rem.	0.2	0.3	-	0.05	-	-	-	-	0.2
CuZn38Pb2(CW608N)	60-61	0.2	1.6-2.5	Rem.	0.2	0.3	-	0.05	-	-	-	-	0.2
CuZn38Pb4(CW609N)	57-59	0.3	3.5-4.2	Rem.	0.3	0.3	-	0.05	-	-	-	-	0.2
CuZn38Sn1	59-62	0.5-1	0.2	Rem.	0.1	0.2	-	-	-	-	-	-	0.5
CuZn38SnAl	59-60.7	0.3-0.6	0.3-0.7	Rem.	0.1-0.4	0.2-0.5	-	0.1-0.5	-	-	-	-	0.5
CuZn39Pb0.5 (CW610N)	59-60.5	0.2	0.2-0.8	Rem.	0.2	0.3	-	0.05	-	-	-	-	0.2
CuZn39Pb1(CW611N)	59-60	0.2	0.8-1.6	Rem.	0.2	0.3	-	0.05	-	-	-	-	0.2
CuZn39Pb2(CW612N)	59-60	0.3	1.6-2.5	Rem.	0.3	0.3	-	0.05	-	-	-	-	0.2
CuZn39Pb2Sn (CW613N)	59-60	0.2-0.5	1.6-2.5	Rem.	0.4	0.3	-	0.1	-	-	-	-	0.2
CuZn39Pb3(CW614N)	57-59	0.3	2.5-3.5	Rem.	0.3	0.3	-	0.05	-	-	-	-	0.2
CuZn39Pb3Sn (CW615N)	57-59	0.2-0.5	2.5-3.5	Rem.	0.4	0.3	-	0.1	-	-	-	-	0.2
CuZn39Sn1(CW719R)	59-61	0.5-1	0.2	Rem.	0.1	0.2	-	-	-	-	-	-	0.2
CuZn40(CW509L)	59.5-61.5	0.2	0.3	Rem.	0.2	0.3	-	0.05	-	-	-	-	0.2
CuZn40Pb1Al (CW616N)	57-59	0.2	1-2	Rem.	0.2	0.2	-	0.05-0.30	-	-	-	-	0.2
CuZn40Pb2(CW617N)	57-59	0.3	1.6-2.5	Rem.	0.3	0.3	-	0.05	-	-	-	-	0.2
CuZn40Pb2Al (CW618N)	57-59	0.3	1.6-3	Rem.	0.3	0.3	-	0.05-0.50	-	-	-	-	0.2
CuZn40Pb2Sn (CW619N)	57-59	0.2-0.5	1.6-2.5	Rem.	0.4	0.3	-	0.1	-	-	-	-	0.2
CuZn41Pb1Al (CW620N)	57-59	0.3	0.8-1.6	Rem.	0.3	0.3	-	0.05-0.50	-	-	-	-	0.2

CuZn42PbAl(CW621N)	57-59	0.3	0.2-0.8	Rem.	0.3	0.3	-	0.05-0.50	-	-	-	-	0.2
CuZn43Pb2(CW623N)	55-57	0.3	1.6-3	Rem.	0.3	0.3	-	0.05	-	-	-	-	0.2
CuZn43Pb2Al (CW624N)	55-57	0.3	1.6-3	Rem.	0.3	0.3	-	0.05-0.50	-	-	-	-	0.2
CuZn43PbAl(CW622N)	55-57	0.3	0.8-1.6	Rem.	0.3	0.3	-	0.05-0.50	-	-	-	-	0.2
CuZn5(CW500L)	94-96	0.1	0.05	Rem.	0.05	0.3	-	0.02	-	-	-	-	0.1
GB-CuZn33Pb	62.5-66	1.4	1.3-2.8	Rem.	0.7	0.8	0.02	0.03	0.1	0.03	0.05	-	1.8
GB-CuZn37Al1	60-63	0.4	0.4	Rem.	0.4	1.8	0.02	0.6-1.8	0.4	0.5	0.05	-	1.3
GB-CuZn37Pb	59-62	0.6	0.7-2.2	Rem.	0.4	0.8	0.02	0.4-0.8	0.1	0.03	0.05	-	1
GB-CuZn38Al	59-62	0.08	0.04	Rem.	0.4	0.8	0.02	0.4-0.8	0.4	0.1	0.03	-	1
GB-CuZn39Pb	58-63	0.9	1.3-2.5	Rem.	0.7	0.8	0.02	0.3-0.7	0.1	0.05	0.05	-	1.8
GB-CuZn40Fe	56-61	0.8	0.8	Rem.	0.2-1	1.8	0.02	0.03	0.3	0.03	0.05	-	1
G-CuZn34Al2	55-66	-	-	Rem.	0.5-2.5	3	-	1-3	0.3-4	-	-	-	0.5
G-CuZn35Al1	56-65	-	-	Rem.	0.5-2	2	-	0.5-2	0.3-3	-	-	-	1.5
G-CuZn37Al1	60-64	-	-	Rem.	-	2	-	0.3-1.8	-	-	-	-	1.5
G-CuZn38Al	59-64	-	-	Rem.	-	1	-	0.1-0.8	-	-	-	-	1.2

ASTM

ASTM													
Copper Alloys	**Cu**	**Sn**	**Pb**	**Zn**	**Fe**	**Ni**	**P**	**Al**	**Mn**	**Si**	**Sb**	**S**	**Bi**
Brass													
C21000	94-96	-	0.05	Rem.	0.05	-	-	-	-	-	-	-	-
C22000	89-91	-	0.05	Rem.	0.05	-	-	-	-	-	-	-	-
C22600	86-89	-	0.05	Rem.	0.05	-	-	-	-	-	-	-	-

C23000	84-86	-	0.05	Rem.	0.05	-	-	-	-	-	-	-	-
C23400	81-84	-	0.05	Rem.	0.05	-	-	-	-	-	-	-	-
C24000	78.5-81.5	-	0.05	Rem.	0.05	-	-	-	-	-	-	-	-
C24080	78-82	-	0.2	Rem.	-	-	-	0.1	-	-	-	-	-
C25600	71-73	-	0.05	Rem.	0.05	-	-	-	-	-	-	-	-
C26000	68.5-71.5	-	0.07	Rem.	0.05	-	-	-	-	-	-	-	-
C26130	68.5-71.5	-	0.05	Rem.	0.05	-	-	-	-	-	-	-	-
C26200	67-70	-	0.07	Rem.	0.05	-	-	-	-	-	-	-	-
C26800	64-68.5	-	0.15	Rem.	0.05	-	-	-	-	-	-	-	-
C27000	63-68.5	-	0.1	Rem.	0.07	-	-	-	-	-	-	-	-
C27200	62-65	-	0.07	Rem.	0.07	-	-	-	-	-	-	-	-
C27400	61-64	-	0.1	Rem.	0.05	-	-	-	-	-	-	-	-
C28000	59-63	-	0.3	Rem.	0.07	-	-	-	-	-	-	-	-
C31200	87.5-90.5	-	0.7-1.2	Rem.	0.1	0.25	-	-	-	-	-	-	-
C31400	87.5-90.5	-	1.3-2.5	Rem.	0.1	0.7	-	-	-	-	-	-	-
C31600	87.5-90.5	-	1.3-2.5	Rem.	0.1	0.7-1.2	0.04-0.1	-	-	-	-	-	-
C32000	83.5-86.5	-	1.5-2.2	Rem.	0.1	0.25	-	-	-	-	-	-	-
C33000	65-68	-	0.25-0.7	Rem.	0.07	-	-	-	-	-	-	-	-
C33200	65-68	-	1.5-2.5	Rem.	0.07	-	-	-	-	-	-	-	-
C33500	62-65	-	0.25-0.7	Rem.	0.15	-	-	-	-	-	-	-	-
C34000	62-65	-	0.8-1.5	Rem.	0.15	-	-	-	-	-	-	-	-
C34200	62-65	-	1.5-2.5	Rem.	0.15	-	-	-	-	-	-	-	-
C34500	62-65	-	1.5-2.5	Rem.	0.15	-	-	-	-	-	-	-	-
C35000	60-63	-	0.8-2	Rem.	0.15	-	-	-	-	-	-	-	-
C35300	60-63	-	1.5-2.5	Rem.	0.15	-	-	-	-	-	-	-	-
C35330	59-64	-	1.5-3.5	Rem.	-	-	-	-	-	-	-	-	-
C35600	60-63	-	2-3	Rem.	0.15	-	-	-	-	-	-	-	-

C36000	60-63	-	2.5-3.7	Rem.	0.35	-	-	-	-	-	-	-	-
C36500	58-61	0.25	0.25-0.7	Rem.	0.15	-	-	-	-	-	-	-	-
C37000	59-62	-	0.8-1.5	Rem.	0.15	-	-	-	-	-	-	-	-
C37100	58-62	-	0.6-1.2	Rem.	0.15	-	-	-	-	-	-	-	-
C37700	58-61	-	1.5-2.5	Rem.	0.3	-	-	-	-	-	-	-	-
C37710	56.5-60	-	1-3	Rem.	0.3	-	-	-	-	-	-	-	-
C38000	55-60	0.3	1.5-2.5	Rem.	0.35	-	-	0.5	-	-	-	-	-
C38500	55-59	-	2.5-3.5	Rem.	0.35	-	-	-	-	-	-	-	-
C40400	Rem.	0.35-0.7	-	2-3	-	-	-	-	-	-	-	-	-
C40500	94-96	0.7-1.3	0.05	Rem.	0.05	-	-	-	-	-	-	-	-
C40810	94.5-96.5	1.8-2.2	0.05	Rem.	0.08-0.12	0.11-0.2	0.028-0.4	-	-	-	-	-	-
C40850	94.5-96.5	2.6-4	0.05	Rem.	0.05-0.2	0.05-0.2	0.01-0.2	-	-	-	-	-	-
C40860	94-96	1.7-2.3	0.05	Rem.	0.01-0.05	0.05-0.2	0.02-0.04	-	-	-	-	-	-
C41000	91-93	2-2.8	0.05	Rem.	0.05	-	-	-	-	-	-	-	-
C41100	89-92	0.3-0.7	0.1	Rem.	0.05	-	-	-	-	-	-	-	-
C41120	89-92	0.3-0.7	0.05	Rem.	0.05-0.2	0.05-0.2	0.01-0.35	-	-	-	-	-	-
C41300	89-93	0.7-1.3	0.1	Rem.	0.05	-	-	-	-	-	-	-	-
C41500	89-93	1.5-2.2	0.1	Rem.	0.05	-	-	-	-	-	-	-	-
C42000	88-91	1.5-2	-	Rem.	-	-	0.25	-	-	-	-	-	-
C42200	86-89	0.8-1.4	0.05	Rem.	0.05	-	0.35	-	-	-	-	-	-
C42220	88-91	0.7-1.4	0.05	Rem.	0.05-0.2	0.05-0.2	0.02-0.05	-	-	-	-	-	-
C42500	87-90	1.5-3	0.05	Rem.	0.05	-	0.35	-	-	-	-	-	-
C42520	88-91	1.5-3	0.05	Rem.	0.05-0.2	0.05-0.2	0.01-0.2	-	-	-	-	-	-
C42600	87-90	2.5-4	0.05	Rem.	0.05-0.2	0.05-0.2	0.01-0.2	-	-	-	-	-	-
C43000	84-87	1.7-2.7	0.1	Rem.	0.05	-	-	-	-	-	-	-	-
C43400	84-87	0.4-1	0.05	Rem.	0.05	-	-	-	-	-	-	-	-
C43500	79-83	0.6-1.2	0.1	Rem.	0.05	-	-	-	-	-	-	-	-
C43600	80-83	0.2-0.5	0.05	Rem.	0.05	-	-	-	-	-	-	-	-

C44250	73-76	0.5-1.5	0.07	Rem.	0.2	0.2	0.1	-	-	-	-	-	-
C44300	70-73	0.8-1.2	0.07	Rem.	0.06	-	-	-	-	-	-	-	-
C44400	70-73	0.8-1.2	0.07	Rem.	0.06	-	-	-	-	-	0.02-0.1	-	-
C44500	70-73	0.8-1.2	0.07	Rem.	0.06	-	0.02-0.1	-	-	-	-	-	-
C46200	62-65	0.5-1	0.2	Rem.	0.1	-	-	-	-	-	-	-	-
C46400	59-62	0.5-1	0.2	Rem.	0.1	-	-	-	-	-	-	-	-
C46500	59-62	0.5-1	0.2	Rem.	0.1	-	-	-	-	-	-	-	-
C47000	57-61	0.25-1	0.05	Rem.	-	-	-	0.01	-	-	-	-	-
C47940	63-66	1.2-2	1-2	Rem.	0.1-1	0.1-0.5	-	-	-	-	-	-	-
C48200	59-62	0.5-1	0.4-1	Rem.	0.1	-	-	-	-	-	-	-	-
C48500	59-62	0.5-1	1.3-2.2	Rem.	0.1	-	-	-	-	-	-	-	-
C48600	59-62	0.3-1.5	1-2.5	Rem.	-	-	-	-	-	-	-	-	-
C66200	86.6-91	0.2-0.7	0.05	Rem.	0.05	0.30-1	0.05-0.2	-	-	-	-	-	-
C66300	84.5-87.5	1.5-3	0.05	Rem.	1.4-2.4	-	0.35	-	-	-	-	-	-
C66400	Rem.	0.05	0.015	11-12	1.3-1.7	-	-	-	-	-	-	-	-
C66410	Rem.	0.05	0.015	11-12	1.8-2.3	-	-	-	-	-	-	-	-
C66420	Rem.	-	-	12.7-17	0.5-1.5	-	-	-	-	-	-	-	-
C66430	Rem.	0.6-0.9	0.05	13-15	0.6-0.9	-	0.1	-	-	-	-	-	-
C67500	57-60	0.5-1.5	0.2	Rem.	0.8-2	-	-	0.25	0.05-0.5	-	-	-	-
C67600	57-60	0.5-1.5	0.5-1	Rem.	0.4-1.3	-	-	-	0.05-0.5	-	-	-	-
C68000	56-60	0.75-1.1	0.05	Rem.	0.25-1.25	0.2-0.8	-	0.01	0.01-0.5	0.04-0.15	-	-	-
C68100	56-60	0.75-1.1	0.05	Rem.	0.25-1.2	-	-	0.01	0.01-0.5	0.04-0.15	-	-	-
C68700	76-79	-	0.07	Rem.	0.06	-	-	1.8-2.5	-	-	-	-	-
C68800	Rem.	-	0.05	21.3-24.1	0.2	-	-	3-3.8	-	-	-	-	-
C83400	88-92	0.2	0.5	8-12	0.25	1	0.03	0.005	-	0.005	0.25	0.08	-
C85200	70-74	0.7-2	1.5-3.58	20-27	0.6	1	0.02	0.005	-	0.05	0.2	0.05	-
C85400	65-70	0.5-1.5	1.5-3.8	24-32	0.7	1	-	0.35	-	0.05	-	-	-
C85500	59-63	0.2	0.2	Rem.	0.2	0.2	-	-	0.2	-	-	-	-

C85700	58-64	0.5-1.5	0.8-1.5	32-40	0.7	1	-	0.8	-	0.05	-	-	-
C85710	58-63	1	1-2.5	32-39	0.8	1	-	0.2-0.8	0.5	0.05	-	-	-
C85800	57 Min	1.5	1.5	31-41	0.5	0.5	0.01	0.55	0.25	0.25	0.05	0.05	-
C89540	58-64	1.2	0.1	32-38	0.5	1	-	0.1-0.6	-	-	-	-	0.6-1.2
C89550	58-64	1.2	0.1	32-38	0.5	1	0.01	0.1-0.6	-	0.25	0.05	0.05	0.6-1.2