

Chemical Requirements (Composition, % Max, unless range is stated)

Copper Alloy UNS No.	Commerical Designation	ASTM Spec.	Cu	Sn	Pb	Zn	Fe	Al	Si	Mn	Mg	Ni (incl Co)	S	Sb	P	As	Bi
C86300	Manganese Bronze	B584	60.0-66.0	0.20	0.20	22.0-28.0	2.0-4.0	5.0-7.5		2.5-5.0		1.0					
C87300	Silicon Bronze	B584	94.0 min	0.20	0.09		0.20		3.5-4.5	0.8-1.5							
C87800	Silicon Bronze	B584	80.0 min	0.25	0.15	12.0-16.0	0.15	0.15	3.8-4.2	0.15	0.01	0.20	0.05	0.05	0.01	0.05	
C92200	Leaded Tin Bronze (Navy "M")	B61	86.0-90.0	5.5-6.5	1.0-2.0	3.0-5.0	0.25	0.005	0.005			1.0	0.05	0.25	0.05		
C95200	Aluminum Bronze (9A)	B148	86.0 min				2.5-4.0	8.5-9.5									
C95400	Aluminum Bronze (9C)	B148	83.0 min				3.0-5.0	10.0-11.5		0.50 max		1.50 max					
C95500	Aluminum Bronze (9D)	B148	78.0 min				3.0-5.0	10.0-11.5		3.5 max		3.0-5.5					
C97400 (Lead Free)	Copper-Nickel-Zinc (Nickel Silver)	Ingot 411	58.0-61.0	2.5-3.5		Rem.	1.50			0.50		15.5-17.0					
C89833 (CDA 83600)	Bismuth Brass	No Spec. Avail.	87.0-91.0	4.0-6.0	0.10	2.0-4.0	0.30	0.005	0.005			1.0	0.08	0.25	0.50		1.7-2.7
C89835 (CDA 93200)	Bismuth Brass	No Spec. Avail.	85.0-89.0	6.0-7.5	0.10	2.0-4.0	0.20	0.005	0.005			1.0	0.08	0.35	0.10		1.7-2.7

Mechanical Requirements

Copper Alloy UNS No.	Tensile Strength, min		Yield Strength, min		Elongation in 2 in. or 50mm, min, %	Brinell Hardness, min
	ksi (1000 psi)	Mpa (Metric)	ksi (1000 psi)	Mpa (Metric)		
C86300	110	758	60	414	12	223
C87300	45	310	18	124	20	not stated
C87800	60	414	24	165	16	134
C92200	34	234	16	110	22	65
C95200	65	450	25	170	20	110
C95400	75	515	30	205	12	150
C95500	90	620	40	275	6	190
C97400 (Lead Free)	38	262	17	117	20	70
C89833 (CDA 83600)	37	258	17	119	28	60
C89835 (CDA 93200)	35	244	18	126	20	65