

EN GRADE	DENSITY	CHEMICAL COMPOSITION %	MECHANICAL PROPERTIES	APPLICATION
медно алуминиеви бронзи				
CuAl10Ni3Fe2	7,5	Al 8,5-10,0 Fe 1,0-3,0 Ni 1,5-4,0 Cu min 82	Rm >600 Rp 0,2 >250 A% >20 HB >120	Mainly used for bronze details which are exposed to corrosion in aggressive water conditions – chemical industry and machinery for food processing.
CuAl10Fe5Ni5	7,6	Al 8,5-11,0 Fe 3,5-5,5 Ni 4,0-6,5 Cu min 76	Rm >700 Rp 0,2 >300 A% >13 HB >160	These are used for production of vessel components – they have high resistance to sea water, acids and any other erosion conditions.
CuAl11Fe6Ni6	7,6	Al 9,0-12,30 Fe 4,0-7,0 Ni 5,0-7,5 Cu min 73	Rm >750 Rp 0,2 >400 A% >5 HB >185	Used mainly for parts of aircraft engines, directing valves, corrosion-resistant parts, bushings, gears, mixers. These bronzes should be used with caution since they are not suitable for use in highly oxidizing acid environment
CuAl10Fe2	7,5	Al 8,0-11,0 Fe 2,0-4,0 Cu min 83	Rm >550 Rp 0,2 >200 A% >15 HB >115	Suitable when high strength, harness, and wear resistance is needed.
CuAl9	7,5	Al 8,0-10,5 Fe max 1,2 Cu min 88	Rm >450 Rp 0,2 >160 A% >15 HB >100	Bronzes with high resistance to corrosion, sea water and wear – production of gears, hydraulic valves and levers, propellers and vanes, as well as machine parts, which require high resistance to fatigue

бронзи със съдържание на олово				
CuSn5Pb9	8,7	Cu 80-87 Sn 4,0-6,0 Zn max 2 Pb 8 ,0-10,0	Rm >160 Rp 0,2 >60 A% >7 HB >55	Alloy with high lead content, making it much more plastic than others
CuSn7Zn4Pb7	8,8	Cu 81-85 Sn 6,0-8,0 Zn 2,0-5,0 Pb5,0-8,0	Rm >270 Rp 0,2 >120 A% >16 HB >70	
CuSn10Pb10	9	Cu 78 – 82 Sn 9,0-11,0 Pb 8,0 – 11,0	Rm >220 Rp 0,2 >110 A% >8 HB >70	
CuSn7Pb15	9,1	Cu 5,0-79,0 Sn 7,0-9,0 Pb 13,0-17,0	Rm >200 Rp 0,2 >110 A% >8 HB >65	
червени бронзи				
RG5		Sn 4-6 Zn 4-6 Pb 4-6 Ni max 2 P max 0,1	Rm >200 Rp 0,2 >90 A% >13 HB >60	Suitable for casting
RG7		Cu 81-85 Sn 6-8 Zn 2,0-5,0 Pb 5-8 Ni max 2 Pmax 0,1	Rm >230 Rp 0,2 >120 A% >15 HB >60	user for sliding plates which work under a high load and with requirement for high wear-resistance
RG10		Cu 86-89 Sn 9-11 Zn 1,0-3,0	Rm >260 Rp 0,2 >130 A% >15 HB >75	

медно калаени бронзи – фосфорен бронз				
CuSn10	8,7	Cu 88-90	Rm >270	High wear resistance qualities
		Sn 9,0-11,0	Rp 0,2 >130	
			A% >18	
			HB >70	
CuSn12	8,8	Cu 85-88,5	Rm >280	This alloy is appropriate for parts that are corrosion and wear resistant and work at a low pace
		Sn 11,0-13,0	Rp 0,2 >140	
			A% >8	
			HB >90	
CuSn11P		Cu 87-89,5	Rm >330	
		Sn 10-11,5	Rp 0,2 >170	
		P 0,5-1,0	A% >5	
			HB >85	
калаено никелови бронзи				
CuSn12Ni2	8,6	Cu 84-87	Rm >300	used for production of connecting components subject to high loads
		Sn 11,0-13,0	Rp 0,2 >170	
		Ni 1,5-2,5	A% >10	
			HB >90	

Rm – tensile strenght in N/mm2

Rp 0,2 – Yield point in N/mm2

A% - Elongation в %

HB – Brinell Hardness