

CuAl10Ni5Fe4

D7

Nearest international Standards		Nominal Composition			
m Lego	D10	Elements	% mean	Impurities	% max.
BS2874	CA104	Fe	4,55	Pb	0.05
BS B23	CA104	Ni	4,55	Sn	0.10
EN12163 / EN12165	CW307G	Mn	0,3	Si	0,20
		Al	10,6	Zn	0,4
				Autres	0.50
		Cu	Balance	Total maxi	

Typical uses

Aluminium Bronze. Aerospace, Electric System, Bushings, Electronics, Marine

Physical Properties at 20 °C		Thermal Properties	
Density (g/cm3)	7.6	Thermal Conductivity (W/m.K)	42
young's Modulus (Gpa)	125	Thermal Capacity (J/Kg.K)	419
Coulomb's Modulus (Gpa)	48	Melting Range (°C)	1060-1075
Coefficient of Linear Expansion (20-300°C)	17	Stress Relief Temperature (°C)	300-400
Coefficient of friction (slip)		Hot Stamping Temperature (°C)	850-975
Coefficient of friction (adhesion)		Annealing Temperature (°C)	650-850

Properties	Mechanical					Electrical			
	Reference Diam. Ø 20 mm	Rp 0,2 (Mpa)	Rm (Mpa)	A (%)	HB	HV	Impact Strenght (daJ/cm2)	Conductivity (% I.A.C.S.)	Resistivity (-.cm)
Drawn / treated	480	750	16	210			2.2	7	24.5
Extruded									

Different General Capabilities			Welding and Brazing Capacities	
Hot Working	75	Very Good	Brazing	
Cold Working	20	Satisfactory	Soft	Not recommended
Free Cutting	40	Moderate	Strong	Satisfactory
Corrosion Resistance	Excellent		Welding	
General Capabilities: 45%			Oxy-acetylene	Not recommended
			Gas-shielded arc	Good
			Coated metal-ard	Good
			Carbon arc	Satisfactory
Profile and flat dimensions on request			Resistance	Good

Fabrication Range (mm)			
	Round	Square	Hexagonal
Turned billet			
Extruded	from 10 to 80		
Drawn / treated	from 6 to 80		from 8 to 70