

Technical Data Sheet

CuAl10Ni5Fe4

Aluminium bronze
Extruded rods



Nominal composition:

Aluminium	(Al)	8.5 - 11.0 %
Nickel	(Ni)	4.0 - 6.0%
Iron	(Fe)	2.0 - 5.0 %
Manganese	(Mn)	1.5% max.
Copper	(Cu)	balance

Specifications:

D	DIN 17665 CuAl10Ni5Fe4	2.0966
F	AFNOR	CuAl9Ni5Fe3M1
GB	BS	CA104
USA	CDA	C63000

Mechanical and physical properties	Units	Extruded rods
1) Tensile strength R_m	MPa	640
2) Yield strength $R_{p0.2}$	MPa	270
3) Elongation A_5	%	15
4) Brinell hardness	HB 10	180
5) Modulus of elasticity E	GPa	121
6) Density ρ	g / cm^3	7.6
7) Coefficient of expansion α	$10^{-6} / K$	16.2
8) Thermal conductivity λ	$W / m \cdot K$	40
9a) Electrical conductivity γ	$m / \Omega \cdot mm^2$	4
9b) Electrical conductivity	% I.A.C.S	7
10) Specific heat c_p	$J / g \cdot K$	0.45

Indicated values are nominals. Assurances given with respect to properties or uses are subject to written approval from AMPCO.

APPLICATIONS:

Construction material with good strength properties, sea water resistant. Endless screws with high tooth pressures and good lubrication.