



ALUMINIUM BRONZE AB1

(BS1400 AB1)

AB1 is an Aluminium Bronze conforming to the requirements of BS 1400. It has good strength and wear resistance with reasonable machining properties. AB1 resists tarnishing and high temperature oxidation. These physical properties remain good at elevated temperatures. General corrosion resistance is good but under some circumstances may suffer dealuminification. Aluminium Bronze is often chosen for pump applications where impeller peripheral velocity is high (up to 45m/sec).

Chemical Composition - CuAl10Fe3

Element		%
Aluminium	Al	8.70 - 10.50
Iron	Fe	1.50 - 3.50
Nickel	Ni	1.00 maximum
Manganese	Mn	1.00 maximum
Zinc	Zn	0.50 maximum
Silicon	Si	0.20 maximum
Tin	Sn	0.10 maximum
Magnesium	Mg	0.05 maximum
Lead	Pb	0.03 maximum
Copper	Cu	Balance
Total Impurities 0.30 maximum		

Typical Mechanical Properties

Ultimate Tensile Strength	500 - 590 MPa
Elongation (minimum)	18 - 40 %
Typical Hardness	90 - 140 BHN
Compressive Strength	170 - 200 MPa
Specific Gravity	7.6

Comparative Specifications

BS 1400 AB1	BS EN 1982-2008 GC CC331G
CuAl10Fe2-C	ASTM B505 C95200
ASTM B148 C95200	ASTM B271 C95200
SAE68a	UNI 5273
DIN 1714 GK CuAl10Fe 2.0940.02	

To discuss your requirements, call a member of NovaCast's team on +44 (0) 1225 707466, or email sales@novacast.co.uk

All information in our data sheets and website is indicative only and is not intended to be a substitute for the full specification from which it is extracted. It is intended to provide typical values to allow comparison between metal alloy options rather than a definitive statement of mechanical performance or suitability for a particular application as these will vary with temperature, product type and product application. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of trading.

WWW.NOVACAST.CO.UK

A Single Source Solution for Precision Cast Components