

ALUMINIUM BRONZE

AB2 - CC333G



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AB2 bronze, also known as BS1400 AB2, is a high-strength cast aluminium bronze alloy with notable resistance to corrosion, cavitation and erosion, particularly in marine environments. AB2 bronze offers high resistance to wear and abrasion, which is beneficial in applications involving heavy loads. It is the cast version of the 10/5/5 aluminium bronze and is usually compared with CA104 when a wrought alternative is required.

KEY FEATURES

- Excellent corrosion resistance
- Good strength and toughness
- High wear and abrasion resistance
- Good shock resistance
- Non-sparking

CHEMICAL PROPERTIES

Copper (Cu)	Aluminium (Al)	Nickel (Ni)	Iron (Fe)	Manganese (Mn)	Zinc (Zn)	Tin (Sn)	Silicone (Si)	Lead (Pb)
76-83%	8.5-10.5%	4-6%	4-5.5%	3%	0.5%	0.1%	0.1%	0.03%

MECHANICAL PROPERTIES

Tensile strength (N/mm ²)	650
Yield strength (N/mm ²)	250
Elongation (%)	13
Hardness - Vickers (HV)	160
Hardness - Brinell (HB) max	-

PHYSICAL PROPERTIES

Density (kg/m ³)	7640	
Modulus of elasticity (Gpa)	77-120	
Mean coefficient of thermal expansion	0-100°C (µm/m/°C)	16.2
	0-350°C (µm/m/°C)	16.8
	0-538°C (µm/m/°C)	17.4
Thermal conductivity	at 100°C (W/m.K)	35.9
	at 500°C (W/m.K)	26.8
Specific Heat 0-100°C (J/kg.K)	-	
Electrical conductivity (IACS 20°C)	7.1	
Melting point (°C)	1060	

MARKET SECTORS



Marine Equipment

Hardware, propeller hubs, sea water valves, propeller blades



Oil & Gas Industry

Valve bodies, bushings, components



Power Generation

Components exposed to high temperatures



Chemical Processing

Gears, pumps, machinery



Aerospace Industry

Applications in explosive environments



Engineering Components

Heavy duty bearings, worm wheels, worms