

# ALUMINIUM BRONZE

## AB2 - CC333G



### AB2 - CC333G

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)
<b>76-83%</b>	<b>8.5-10.5%</b>	<b>4-6%</b>	<b>4-5.5%</b>	<b>3%</b>	<b>0.5%</b>	<b>0.1%</b>	<b>0.1%</b>	<b>0.03%</b>

### MECHANICAL PROPERTIES

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

### PHYSICAL PROPERTIES

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

### 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