

COPPER ALLOY**Ali-Bronze: CC333G****DSM 2.2.2****Ali-Bronze: CC333G**

The most common **cast** version of the aluminium bronze range.

Definition:

Aluminium bronzes are a range of copper based alloys in which aluminium is the primary alloying element. Available in both cast and wrought (shaped) versions they are readily weldable into fabricated components.

Features:

This alloy combines strength (greater than carbon steel), toughness and corrosion resistance (better than most stainless steels). This grade has high wear, abrasive & shock loading resistance including the ability to retain strength & ductility at a broad temperature range including cryogenic.

ASM (DEK) Application:

Sleeves, bushes

These values are representative and should not be considered as definitive. For critical applications, refer to material data-sheet.

TYPICAL MECHANICAL PROPERTIES @25°C	
DENSITY:	7530 Kg/m³
YOUNGS MODULUS:	110 GPa
POISSONS RATIO:	0.32
YIELD STRENGTH	290 MPa
TENSILE STRENGTH	655 MPa

Issue	01	02	03	04	05	06	07	08	09
DCR	42122	44721							



COPPER ALLOY**Ali-Bronze: CC333G****DSM 2.2.2****Key Features:**

METHOD	RESULT
Machining	Reasonable
Cold Working_ Ambient	Not Recommended
Hot Forming	Not Recommended
Brazing & soldering	Fair & Good
Welding – (Mig & Tig)	Good & Good
Welding – Resistance (spot)	Not Recommended
Corrosion Resistance (uncoated)	Atmosphere: Excellent Marine: Excellent

Supplied Forms:

These sizes are given in good faith and should not be considered
as definitive

Continuous Cast:

- **Round/ Hexagon/ Octagon:** Solid & Hollow
- **Rectangular:** Solid only

Outside Diameter: 12mm- 305mm**Inside Diameter:** 12mm- 254mm**Centrifugal Cast:**

- **Round:** Hollow only

Outside Diameter: 330mm- 560mm**Inside Diameter:** 175mm- 500mm

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CHEMICAL COMPOSITION					
Copper (Cu)	79 % min	Iron (Fe)	3.5 / 4.5 %	Tin (Sn)	0,10% max
Alumin (Al)	8.5 / 9.5 %	Mang (Mn)	0.8 / 1.5 %	Lead. (Pb)	0,05 % max
Nickel (Ni)	4.0 / 5.0 %	Zinc (Zn)	0,50% max		

- **Iron (Fe):** Increases strength & Toughness.
- **Nickel (Ni):** Improves corrosion resistance.

CURRENT INTERNATIONAL SPECIFICATION COMPARISON	
BRITISH: EN 1982	CC333G
GERMAN: DIN	2.0975
EUROPEAN: EN	CuAl10Fe5Ni5-C
AMERICAN: UNS	C95800
JAPANESE GRADE	JIS CAC703
CHINESE GRADE	----

REPLACES

BS 1490	DESCRIPTION
AB2	Specifications: Ali-Bronze castings

Alternatives:

Alternative materials are allowed only with the express written permission of ASMPT. Please email details of your request to engineering_enquiries@asmpt.com

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