

Product Information Sheet

ISSUE A

ALLOY CuZn34Al2

A. W. Fraser Alloy CuZn34Al2 is a manganese bronze or high tensile brass conforming to the requirements of DIN 1709

Alloy CuZn34Al2 has high strength and good abrasion resistance making it suitable for valve components, seatings and general machine parts.

Alloy CuZn34Al2 has reasonable corrosion resistance but may be susceptible to dezincification under certain conditions.

The composition of A. W. Fraser alloy CuZn34Al2 is strictly controlled as are the casting conditions. Products are manufactured using the latest continuous and centrifugal casting technology.

ALLOY CuZn34Al2 - MANGANESE BRONZE

SUMMARY OF PROPERTIES

Chemical Composition - percent

Element			Nominal
Copper	Cu	55.0 - 66.0	60.5
Aluminium	Al	1.0 - 3.0	2.0
Iron	Fe	0.5 - 2.5	1.4
Manganese	Mn	0.5 - 4.0	2.0
Nickel	Ni	3.0 maximum	0.1
Tin	Sn	0.3 maximum	
Lead	Pb	0.3 maximum	
Zinc	Zn	Balance	

Mechanical Properties [Minimum]

0.2 % Proof Stress
Ultimate Tensile Strength
Elongation
Typical Hardness

Continuous and Centrifugal Cast

260 Mpa (37,000 psi)
620 Mpa (90,000 psi)
14%
150 BHN

Specific Gravity
Machinability Rating (Free Machining Brass=100)
Max. Operating Temperature
Stress Relieving Temperature
Time at Temperature

8.6
20
260°C (500°F)
260°C (500°F)
1 hour per 25mm of section thickness

Comparative Specifications

BS1400 - HTB2*; JIS H 5121 CAC302C (HBsC2C)*

* Similar but not identical