

Product Information Sheet

ISSUE A

ALLOY CuAl10Fe5Ni5

A. W. Fraser Alloy CuAl10Fe5Ni5 is a high strength nickel aluminium bronze conforming to the requirements of DIN EN 1982:1999 alloy CuAl10Fe5Ni5

Alloy CuAl10Fe5Ni5 is a heavy duty, dense, high strength alloy with excellent resistance to seawater corrosion and fatigue.

This alloy has good wearing qualities and is suitable for elevated temperature use. It exhibits good shock and high stress qualities making it suitable for heavy duty bearings, worm gears and helical gears.

The composition of A. W. Fraser alloy CuAl10Fe5Ni5 is strictly controlled as are the casting conditions. Alloy CuAl10Fe5Ni5 products are manufactured using the latest continuous casting technology.

ALLOY CuAl10Fe5Ni5 - NICKEL ALUMINIUM BRONZE	SUMMARY OF PROPERTIES
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Chemical Composition - percent

Element			Nominal
Aluminium	Al	8.5 - 10.5	10.0
Iron	Fe	4.0 - 5.5	4.5
Nickel	Ni	4.0 - 6.0	5.2
Manganese	Mn	2.5 maximum	<0.2
Lead	Pb	0.03 max	<0.03
Copper	Cu	76.0 - 83.0	
Total Impurities		0.2 maximum	

Mechanical Properties [Typical]

O.2% Proof stress	290 MPa
Ultimate Tensile Strength	670 MPa
Elongation	15 %
Typical Hardness	190 HB (3000 Kg)
Specific Gravity	7.6
Machinability Rating (Free Machining Brass=100)	50

Continuous Cast

Comparative Specifications

BS EN 1982 – CuAl10Fe5Ni5 ; UNS 95500*; ASTM B505 - C95500; DIN 1714 CuAl10Ni* ; BS 1400 – AB2*

* Similar but not identical