

## Copper Alloys

## C63000 (B150) Bar & Forgings

Datasheet Updated  
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### SPECIFICATIONS

Commercial	B150
US	C63000

A high strength nickel aluminum bronze with good corrosion resistance in sea water.

### CHEMICAL COMPOSITION

Element	% Present
Iron (Fe)	2.00 - 4.00
Manganese (Mn)	0.00 - 1.50
Aluminium (Al)	9.00 - 11.00
Nickel (Ni)	4.00 - 5.50
Silicon (Si)	0.00 - 0.25
Tin (Sn)	0.00 - 0.20
Zinc (Zn)	0.00 - 0.30
Copper (Cu)	Balance

### ALLOY DESIGNATIONS

- AMS 4640
- UNS C63000
- ASTM B150
- BSEN12163: CW307G
- CA104
- CA105
- C63020
- BS2874
- BS2875
- 2.0966
- NF A51-116
- NF L14-705
- CuAl10Ni5Fe4
- CuAl9Ni5Fe3 (FR)
- CuAl9Ni5Fe4 (FR)

### SUPPLIED FORMS

- Bar
- Forgings
- Rod

## APPLICATIONS

- Aerospace landing gear components
- Marine fasteners, hardware and fittings
- Thrust washers
- Gears
- Control bushes, valve spindles and components
- Faucet balls, springs & worm wheels
- Non-sparking safety tooling
- Wear plates
- Valve stems and seats
- Welding clamps
- Fasteners
- Bearing bushes

## CHARACTERISTICS

- Very good strength and toughness
- High resistance to corrosion and erosion
- Retention of properties at cryogenic temperatures
- Excellent resistance to shock, wear and abrasion
- Spark resistance
- Good machinability
- Readily hot worked
- Good resistance to dilute sulphuric, hydrochloric and non-oxidising acids

## MECHANICAL PROPERTIES

Property	Value
Elongation A50 mm	10 %
Hardness Rockwell B	180-240 HRB

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