



## ALUMINUM BRONZE "9C"

### EQUIVALENT SPECIFICATIONS

SPECIFICATIONS	DESIGNATION
Italy	CuAl11Fe4

C95400 Aluminum Bronze, also known by C954, is the most popular, all purpose aluminum bronze alloy. It provides high yield and tensile strength, good ductility, weldability and exceptional resistance to wear, fatigue and deformation under shock or overload. Typical applications include bearings, gears, valve components, wearplate and wearstrip. Conforms to continuous cast specification ASTM B505 and centrifugal cast specification ASTM B271.

### TYPICAL USES :

**AUTOMOTIVE:** Weld Guns **FASTENERS:** Nuts, Large Hold Down Screws **INDUSTRIAL:** Pickling Hooks, Bearings, Pawl, Worm Gears, Machine Parts, Spur Gears, Heavily Loaded Worm Gears, Pump Parts, Landing Gear Parts, Valve Bodies, Valve Guides, Valve Seats, Bearing Segments for the Steel Industry, Pressure Blocks for the Steel Industry, High Strength Clamps, Bushings, Valves, Gears **MARINE:** Ship Building, Covers for Marine Hardware **ORDINANCE:** Government Fittings

### CHEMICAL COMPOSITION

	Al	Cu	Fe	Mn	Ni
Min/Max	10.0-11.5	83.0 min	3.0-5.0	0.5	1.5
Nominals	10.8000	83.2000	4.0000	-	-

### PHYSICAL PROPERTIES

Product Property	US Customary
Coefficient of Thermal Expansion	9.0 $\times 10^{-6}$ per oF (68-572 F)
Density	0.269 lb/in <sup>3</sup> at 68 F
Electrical Conductivity	13 %IACS @ 68 F
Electrical Resistivity	80.2 ohms-cmil/ft @ 68 F
Magnetic Permeability (As Cast)	1.27
Magnetic Permeability (TQ50 temper)	1.2
Melting Point - Liquidus	1900 F
Melting Point - Solidus	1880 F
Modulus of Elasticity in Tension	15500 ksi
Specific Gravity	7.45
Specific Heat Capacity	0.1 Btu/lb/oF at 68 F
Thermal Conductivity	33.9 Btu $\hat{A}$ • ft/(hr $\hat{A}$ • ft <sup>2</sup> $\hat{A}$ • oF)at 68F

### SIZES AVAILABLE :

ROUND RODS/BARS	8mm To 100 mm
HEX	10mm To 60mm
SQUARE	10mm To 60mm
FLAT	10mm Min Thickness and max Width 120mm
BILLETS	Up to 200 mm
INGOTS	As per Specification

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