



SILICON ALUMINUM BRONZE

EQUIVALENT SPECIFICATIONS

SPECIFICATIONS	DESIGNATION
ISO	CuAl7Si2
European	CuAl7Si2
UNS	C64210

C64200 is an engineering alloy at least as resistant to corrosion as copper itself, but much stronger. C642 is manufactured mostly in the form of round, hexagonal, and octagonal rods for hot forming and free machining. C64200 is considered to be of the best valve stem alloys. Other applications include gears, marine hardware, nuts, pole line hardware, and valve bodies and components.

Typical Uses for C64200 Silicon Aluminum Bronze:

AUTOMOTIVE: Valve Guides, Automobile Engine **ELECTRICAL:** Pole Line Hardware **FASTENERS:** Bolts, Nuts
INDUSTRIAL: Valve Components, Valve Bodies, Gears, Valve Stems, Cams **MARINE:** Hardware

CHEMICAL COMPOSITION

	Al	As	Cu	Fe	Pb	Mn	Ni	Si	Sn	Zn
Min/Max	6.3 - 7.6	0.15	Rem	0.3	0.05	0.1	0.25	1.5 - 2.2	0.2	0.5
Nominals	7.0000	-	91.2000	-	-	-	-	1.8000	-	-

PHYSICAL PROPERTIES

Product Property	US Customary
Coefficient of Thermal Expansion	10.0 $\text{Å} \cdot 10^{-6}$ per oF (68-572 F)
Density	0.278 lb/in ³ at 68 F
Electrical Conductivity	8 %IACS @ 68 F
Electrical Resistivity	113.0 ohms-cmil/ft @ 68 F
Melting Point - Liquidus	1840 F
Melting Point - Solidus	1800 F
Modulus of Elasticity in Tension	16000 ksi
Modulus of Rigidity	6000 ksi
Specific Gravity	7.69
Specific Heat Capacity	0.09 Btu/lb/Å • oF at 68F
Thermal Conductivity	26.0 Btu Å • ft/(hr Å • ft ² Å • oF)at 68F

SIZES AVAILABLE :

ROUND RODS	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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