

# CDA 651

# COPPER ALLOY

SILICON BRONZE

UNS C65100 low silicon bronze alloy has good corrosion resistance and moderate strength. Applications and properties of this alloy are similar to that of UNS C64200 copper alloy. UNS C65100 bronze alloy can be welded at temperatures ranging from 705 to 872°C (1300 to 1600°F). bronze alloy can be welded using brazing, soldering, gas shielded arc welding, spot welding, oxyacetylene welding, buff welding, and seam welding methods. bronze alloy has good cold working capacity.

### Chemical Properties

Cu	Fe	Mn	Si	Pb	Zn
98.5	0.8 max	0.7 max	0.8-2	0.05 max	1.5 max

### Mechanical Properties

Yield strength	Tensile strength	Elongation
Min 0.2% PSI	Min PSI	Min %
105	275	50

### Physical Properties

Density	Elastic Modulus	Mean Coefficient of Thermal	Thermal Conductivity	Melting Point
(Kg/m <sup>3</sup> )	(Gpa)	Expansion(µm/m/°C)	(W/m.K)	(nΩ.m)
8.75	117	18	57	1030-1060

### Heat Treatment

The annealing temperature of B16/360 Brass is 800°-110°F

### Equivalent Designation

UNS C65100

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