

# C67300 Manganese Bronze

## Chemical Composition

	Element								
	Cu <sup>(1,2)</sup>	Pb	Sn	Zn	Fe	Ni <sup>(3)</sup>	Al	Mn	Si
(1) Cu + Sum of Named Elements 99.5% min.(2) Cu value includes Ag.(3) Ni value includes Co.									
Min (%)	58.0	0.40						2.0	0.50
Max (%)	63.0	3.0	0.30	Rem	0.50	0.25	0.25	3.5	1.5

## Mechanical Properties\*

Form	Temper Code	Tensile Strength (ksi)	YS-0.5% Ext (ksi)	Elongation (%)	Rockwell B scale	Section Size (in)
Bar	H50	65 Min	40 Min	11 Min	80 Min	<1.00

\* Measured at room temperature, 68°F (20°C).

## Physical Properties

Melting Point – Liquidus °F	1605
Density lb /cu in. at 68°F	0.3
Specific Gravity	8.3
Electrical Conductivity % IACS at 68°F	22
Thermal Conductivity Btu/ sq ft/ ft hr/ °F at 68°F	55
Coefficient of Thermal Expansion 68-572 $10^{-6}$ per °F (68 – 572°F)	11
Modulus of Elasticity in Tension ksi	17000

