

C91100 ASTM B22

Tin Bronze

Chemical Composition

	Element										
	Cu ^(1,2)	Pb	Sn	Zn	Fe	P ⁽³⁾	Ni ⁽⁴⁾	Al	S	Sb	Si
(1) In determining Cu min., Cu may be calculated as Cu + Ni.(2) Cu + Sum of Named Elements 99.4% min.(3) For continuous castings P shall be 1.5% max.(4) Ni value includes Co.											
Min (%)	82.0		15.0								
Max (%)	85.0	0.25	17.0	0.25	0.25	1.0	0.50	0.005	0.05	0.20	0.005

Mechanical Properties*

Form	Temper Code	Tensile Strength	YS-0.5% Ext	Elongation	Brinell Hardness, 3000 kg load	Compression Deformation Limit	Proportional Limit
		(ksi)	(ksi)	(%)		(ksi)	(ksi)
As Sand Cast	M01	35 Typ	25 Typ	2 Typ	135 Typ	18 Min for Standard	16 Typ

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

Physical Properties

Melting Point - Liquidus°F	1742
Melting Point - Solidus°F	1505
Electrical Conductivity% IACS at 68°F	8
Specific Heat CapacityBtu/ lb /°F at 68°F	0.09
Modulus of Elasticity in Tensionksi	15000

