

C94700HT

Continuous Cast

Product Description:	Nickel-Tin Bronze
Solids:	½" to 10" O.D.
Tubes:	1" to 16" O.D.
Rectangles:	Up to 20"
Standard Lengths:	24"
Shape/Form:	semi-finished, mill stock or near-net shapes, anode, bar stock, billet/bloom, squares, hex, plate, profile or structural shape, flats/rectangular bar
	*Consult mill for other lengths

Typical Uses

Electrical	circuit breaker parts
Industrial	bearings, feeding mechanisms, gears, nozzles, piston cylinders, shift forks, valve components, wear guides

Similar or Equivalent Specification

CDA	ASTM	SAE	AMS	Federal	Military	Other
C94700	B505 B505M B947 B292-A	J461 J462		QQ-C-390, F2		Cast Nickel-Tin Bronze

Chemical Composition

Cu%	Pb% ¹	Sn%	Zn%	Fe%	P%	Ni% ²	Al%	Mn%	S%	Sb%	Si%
85.00- 90.00	0.09	4.50- 6.00	1.00- 2.50	0.25	0.05	4.50- 6.00	0.005	0.20	0.05	0.15	0.005

Chemical Composition according to ASTM B505/B505M-18

¹It is possible that the mechanical requirements of Copper Alloy UNS No. C94700 in the heat-treated condition will not be attained if the lead content exceeds 0.01%.

²Ni value includes Co.

Note: Cu + Sum of Named Elements, 98.7% min. Single values represent maximums.

Machinability

Copper Alloy UNS No.	Machinability Rating	Density (lb/in ³ at 68 ° F)
C94700HT	30	0.32

Note: HT = heat treated.



Mechanical Properties

C94700HT continued

Tensile Strength, min		Yield Strength, at 0.5% Extension Under Load, min		Elongation, in 2 in. or 50 mm min	Brinell Hardness (3000 kg load)	Remarks
ksi	MPa	ksi	MPa	%	typical BHN	
75	517	50	345	5	180	Heat Treated

Mechanical Properties according to ASTM B505/B505M-18

