

# C94700HT

Cast

<b>Product Description:</b>	Nickel-Tin Bronze
<b>Solids:</b>	½" to 10" O.D.
<b>Tubes:</b>	1" to 16" O.D.
<b>Rectangles:</b>	Up to 20"
<b>Standard Lengths:</b>	24"*
<b>Shape/Form:</b>	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% <sup>1</sup>	Sn%	Zn%	Fe%	P%	Ni% <sup>2</sup>	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

<sup>1</sup>It 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%.

<sup>2</sup>Ni 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 <sup>3</sup> 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