C94700HT

Continuous cast

Product description	Nickel-tin bronze	Ty
Solids	1/2" to 10" O.D.	Circ
Tubes	1" to 16" O.D.	Ind
Rectangles	Up to 20"	Bear mec
Standard lengths	24"*	shift
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

Similiar 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-23

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/in³ at 68°F)
С94700НТ	30	0.32

Note: HT = heat treated.

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Mechanical properties

Tensile stre	ngth, 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-23