

# C90800

Cast • GreenAlloy™

<b>Product Description:</b>	Tin Bronze
<b>Solids:</b>	1" to 6" OD
<b>Tubes:</b>	1" to 6" OD
<b>Rectangles:</b>	Up to 10"
<b>Standard Lengths:</b>	144"
<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
<b>Compliance:</b>	C90800 is compliant with key legislation including (1) Federal Safe Drinking Water Act 1974 – SDWA, (2) Federal Reduction of Lead in Drinking Water Act 2011 and (3) California AF1953

## Typical Uses

**Industrial** speed reducers, worm gears

## Similar or Equivalent Specification

CDA	ASTM	ASARCON	SAE	AMS	FEDERAL	MILITARY	OTHER
C90800	B427						

## Chemical Composition

Cu% <sup>1</sup>	Pb%	Sn%	Zn%	Fe%	P% <sup>2</sup>	Ni% <sup>3</sup>	Al%	S%	Sb%	Si%
85.00- 89.00	0.25	11.00- 13.00	0.25	0.15	0.30	0.50	0.005	0.05	0.20	0.005

Chemical Composition according to ASTM B427-09(2015)

<sup>1</sup>In determining Cu min., Cu may be calculated as Cu + Ni.

<sup>2</sup>For continuous castings, P shall be 1.5% max.

<sup>3</sup>Ni value includes Co.

Note: Cu + Sum of Named Elements, 99.4% min. Single values represent maximums.

## Mechanical Properties

Tensile Strength, min		Yield Strength, at .5% extension under load min		Elongation, in 2 in. or 50 mm min	Brinell Hardness	Remarks
ksi	MPa	ksi	MPa	%	typical BHN	
45	310	22	152	14	95 (500 kg)	

Mechanical Properties according to ASTM B427-09(2015)

# C90810

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<b>Product Description:</b>	High Tin Bronze
<b>Solids:</b>	1" to 6" OD
<b>Tubes:</b>	1" to 6" OD
<b>Rectangles:</b>	Up to 10"
<b>Standard Lengths:</b>	144"
<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
<b>Compliance:</b>	C90810 is compliant with key legislation including (1) Federal Safe Drinking Water Act 1974 – SDWA, (2) Federal Reduction of Lead in Drinking Water Act 2011 and (3) California AF1953

## Typical Uses

**Industrial** bearings, shafts, gears, worm gears

## Chemical Composition

Cu% <sup>1</sup>	Pb%	Sn%	Zn%	Fe%	P% <sup>2</sup>	Ni% <sup>3</sup>	Al%	S%	Sb%	Si%
Rem.	0.25	11.00- 13.00	0.30	0.15	0.15- 0.80	0.50	0.005	0.05	0.20	0.005

<sup>1</sup>In determining Cu min., Cu may be calculated as Cu + Ni.

<sup>2</sup>For continuous castings, P shall be 1.5% max.

<sup>3</sup>Ni value includes Co.

Note: Cu + Sum of Named Elements, 99.4% min. Single values represent maximums.

## Machinability

Copper Alloy UNS No.	Machinability Rating	Density (lb/cu in at 68° F)
C90810	20	0.323

## Mechanical Properties

Tensile Strength, min		Yield Strength, at .5% extension under load min		Elongation, in 2 in. or 50 mm min	Brinell Hardness	Remarks
ksi	MPa	ksi	MPa	%	typical BHN	
					95 (500 kg)	