C90800

Cast • GreenAlloy™

Product Description:	Tin Bronze
Solids:	1" to 6" O.D.
Tubes:	1" to 6" O.D.
Rectangles:	Up to 10"
Standard Lengths:	144"
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
Compliance:	C90800 is compliant with key legislation including (1) Federal Safe Drinking Water Act 1974 – SDWA, (2) Federal Reduction of Lead in Drinking Water Act of 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%[1]	Pb%	Sn%	Zn%	Fe%	P%[2]	Ni%[3]	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)

[1]In determining Cu min., Cu may be calculated as Cu + Ni. [2]For continuous castings, P shall be 1.5% max. [3]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)

GREEN ALLOYS™

14315 State Route 113 • Wakeman, OH 44889 • Phone 800.626.7071 • Fax 724.538.3956

C90810

Cast • GreenAlloy™

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

Typical Uses

Industrial	bearings, shafts, gears, worm gears

Chemical Composition

Cu%[1]	Pb%	Sn%	Zn%	Fe%	P%[2]	Ni%[3]	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

[1]In determining Cu min., Cu may be calculated as Cu + Ni. [2]For continuous castings, P shall be 1.5% max. [3]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)	

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