

C89520 EnviroBrass II

Cast • GreenAlloy™

Product Description:	Bismuth Tin Bronze
Solids:	½" to 9" O.D.
Tubes:	1½" to 9" O.D.
Rectangles:	Up to 15"
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:	C89520 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

Plumbing plumbing castings

Similar or Equivalent Specification

CDA	ASTM	Asarcon	SAE	AMS	Federal	Military	Other
C89520	B584						

Chemical Composition

Cu%	Pb%	Sn%	Zn%	Fe%	Ni% ¹	Al%	Bi%	S%	Sb%	Se%
85.00- 87.00	0.09	5.00- 6.00	4.00- 6.00	0.20	1.00	0.005	1.60- 2.20	0.08	0.25	0.80- 1.10

¹Ni value includes Co.

Note: Cu + Sum of Named Elements, 99.5% min. Single values represent maximums.

Machinability

Copper Alloy UNS No.	Machinability Rating	Density (lb/cu in at 68° F)
C89520	85	0.318

Mechanical Properties

C89520 continued

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	%	minimum BHN	
25	172	18	124	6	54 (500 kg)	

Physical Properties

	US Customary	Metric
Melting Point – Liquidus	1616° F	880° C
Melting Point – Solidus	1583° F	862° C

Physical Properties provided by CDA

Fabrication Properties

Joining Technique	Suitability
Soldering	Excellent
Brazing	Good
Oxyacetylene Welding	Not Recommended
Gas Shielded Arc Welding	Not Recommended
Coated Metal Arc Welding	Not Recommended

Fabrication Properties provided by CDA