

# C89520 EnviroBrass II

Cast • GreenAlloy™

<b>Product Description:</b>	Bismuth Tin Bronze
<b>Solids:</b>	½" to 9" OD
<b>Tubes:</b>	1½" to 9" OD
<b>Rectangles:</b>	Up to 15"
<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>	C89520 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

**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% <sup>1</sup>	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

<sup>1</sup>Ni 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