



## C89520 (SeBiLOY II (EnviroBrass II))

Last Updated: Jan 27, 2006

### Chemical Composition

(%max., unless shown as range or min.)

	Cu	Al	Sb	Bi(1)	Fe	Pb	Ni(2)	P	Se(3)	Si	S	Sn	Zn
Min./Max.	85.0-87.0	.005	.25	1.6-2.2	.20	.25	1.0	.05	.8-1.1	.005	.08	5.0-6.0	4.0-6.0
Nominal	86.0	-	-	1.9	-	-	-	.95	-	-	-	5.5	5.0

(1) Bi:Se >= 2:1

(2) Ni value includes Co.

(3) Bi:Se >= 2:1

Note: Cu + Sum of Named Elements, 99.5% min.

### Applicable Specifications

Product	Specification
Ingot	ASTM B30
Sand	ASTM B584

### Common Fabrication Processes

#### Casting

#### 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
Machinability Rating	85

### Mechanical Properties (measured at room temperature, 68 F (20 C))

Temper	Section Size	Cold Work	Typ/Min	Temp	Tensile Strength	Yield Strength (0.5% ext. under load)	Yield Strength (0.2% offset)	Yield Strength (0.05% offset)	El	Rockwell Hardness			Vickens Hard.	Brinell Hard.	Shear Strength	Fatigue Strength*	Izod Impact Strength
										%	B	C					
	in.	%		F	ksi	ksi	ksi	ksi							ksi	ksi	ft-lb
	mm.			C	MPa	MPa	MPa	MPa							MPa	MPa	J
<b>As Sand Cast</b>																	
M01	0.0	0	TYP	68	31	21	-	-	10	-	-	-	-	54	-	-	0.0
	0.0			20	210	140	-	-	10	-	-	-	-	54	-	-	0.0

\*Fatigue Strength: 100 x 10<sup>6</sup> cycles, unless indicated as [N]X 10<sup>6</sup>.

### Physical Properties

<	US Customary	Metric
Melting Point - Liquidus	1842 F	1005 C
Melting Point - Solidus	353 F	196 C

**Temper Most Commonly Used** No information available.

### Typical Uses

#### Plumbing

Plumbing Castings

The above data used by permission from the **Copper Development Association Inc.** A complete Description of all UNS Copper Alloys is available at [www.copper.org](http://www.copper.org)