wieland chase

START SMALL. MELT QUICKLY. MAXIMIZE PRODUCTIVITY.

Introducing

EZ-MELT GRANULAR INGOT

MADE WITH ECO BRONZE®
HIGH PERFORMANCE SILICON BRONZE

C87850 - ECO BRONZE is AWWA C800 approved for use in cast underground service lines. Additionally, ECO BRONZE is suitable for use in AWWA C700 and C500 Standard applications. ECO BRONZE has been recognized in a university study as the leading lead-free alloy for environmental friendliness, efficient manufacturing of component parts, and end-of-life recyclability. To support sustainability efforts, ECO BRONZE EZ-Melt uses less energy to melt versus other lead free alloys and is fully recyclable, as all elements of the alloy can be separated and recaptured to support end of life.

AWWA STANDARDS

AWWA C800 Standard – Underground Service Valves and Fittings
AWWA C700 Standard – Cold-Water Displacement Meters
AWWA C500 Standard – Metal-Seated Gate Valves for Water Supply Service

ECO BRONZE® Characteristics:

- Lead free*
- Dezincification resistant
- Stress corrosion cracking resistant
- High fluidity
- Melts at lower temps
- Low pouring temperature
- Short solidification range
- Less prone to dispersed microporosity
- Low dross
- High strength
- Lighter weight
- Energy efficient production
- Good machinability
- Fully recyclable
- Reduces CO_2
- Supports sustainability efforts

*This product complies with 0.25% weighted average lead content on wetted surfaces in accordance with Safe Water Drinking Act (SDWA) / Federal Public Law No. 111-380.

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The smallest, yet most versatile, member of our product line.

EZ-Melt Granular Ingots provides more surface area in a furnace that results in more efficient melting and reduced BTU consumption than traditional Ingot.

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ECO BRONZE
HIGH PERFORMANCE SILICON BRONZE

C87850
Silicon Bronze Alloy Properties

C87850 Copper Silicon Bronze Alloy Properties	
Melting Point - Liquidus (°F)	1616
Melting Point - Solidus (°F)	1571
Density (lb/cu in.)	0.3
Electrical Conductivity (%IACS at 68°F)	8
Thermal Conductivity (Btu/sq ft/ft hr/°F at 68°F)	21.8
Coefficient of Thermal Expansion (10^{-6}/°F, 68-212°F)	10.3
Coefficient of Thermal Expansion (10^{-6}/°F, 68-392°F)	10.3
Coefficient of Thermal Expansion (10^{-6}/°F, 68-572°F)	10.4
Specific Heat Capacity (Btu/lb/°F at 68°F)	0.09
Annealing Temperature Range (°F)	1000-1200
Hot Working Temperature Range (°F)	1200-1400

Minimum Mechanical Properties (ASTM B505, B584, B806)

Casting Method	Tensile Strength (ksi)	Yield Strength (ksi)	Elong. %	Brinell Hardness 500 lb Load
Sand	59	22	16	
Permanent Mold	64	32	16	
Continuous Cast	65	25	8	103

Chemistry Specification (ASTM B30)								
Cu (%)	Si (%)	P (%)	Pb (%)	Fe (%)	Sn (%)	Ni (%)	Mn (%)	Sb (%)
75-78	2.7-3.4	0.05-0.20	0.09 max	0.10 max	0.30 max	0.20 max	0.10 max	0.10 max

For further information please contact:
800-537-4291 | ecobronze@wieland.com

To learn more about ECO BRONZE® visit
www.ECOBRONZE-USA.COM

MADE IN THE USA

The values listed on this page represent reasonable approximations suitable for general engineering use. Due to commercial variations in compositions and to manufacturing limitations, they should not be used for specification purposes. See applicable ASTM International specification references.