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TOUGH JUST GOT GREENER

ECO BRONZE™
HIGH PERFORMANCE LEAD FREE BRONZE

Lead-Free* Bronze
Engineered for Performance

ECO BRONZE is AWWA C800 approved. Additionally, ECO BRONZE has proven to be a great alternative to the standard C93200 leaded bronze alloy, while also providing lead-free, arsenic-free, and bismuth-free advantages. Tests show ECO BRONZE has a low coefficient of friction, superior compressive strength, and excellent machinability. ECO BRONZE is your environmentally friendly, cost effective, tough stuff bearing material.

AWWA C800 Approved

AWWA STANDARD DESCRIPTIONS

AWWA C800 Standard – Underground Service Valves and Fittings
AWWA C700 Standard – Cold-Water Displacement Meters (with Bronze Main Case)
AWWA C500 Standard – Metal-Seated Gate Valves for Water Supply Service

*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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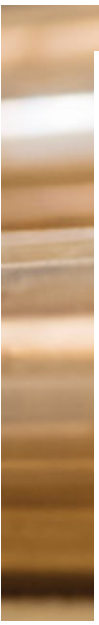
ECO BRONZE
HIGH PERFORMANCE SILICON BRONZE

Chemistry Specification									
Cu (%)	Si (%)	P (%)	Pb (%)	Fe (%)	Sn (%)	Ni (%)	Mn (%)	Sb (%)	Zn
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	Remainder



Mechanical Properties ECO BRONZE C87850

Tensile Strength (min) KSI	65
Yield Strength (min) KSI	25
Elongation (min) %	8
Brinell Hardness (500 lb load)	103

Physical Properties

Melting Point - Liquidus (°F)	1616
Melting Point - Solidus (°F)	1571
Density (lb/cu in.)	0.300
Electrical Conductivity (%IACS at 68°F)	8
Thermal Conductivity (Btu/sq ft/ft hr/°F at 68°F)	21.8
Coefficient of Thermal Expansion (x10-6/°F, 68-212°F)	10.3
Coefficient of Thermal Expansion (x10-6/°F, 68-392°F)	10.3
Coefficient of Thermal Expansion (x10-6/°F, 68-572°F)	10.4
Specific Heat Capacity (Btu/lb/°F at 68°F)	0.09

Fabrication Properties

Joining Technique	Rating
Brazing	Excellent
Butt Welding	Good
Seam Welding	Good
Soldering	Excellent
Spot Welding	Good

Thermal Treatments

Treatment	Minimum	Maximum
Stress Relief	Not Required	
Annealing	930° F	1112° F
Hot Working	1200° F	1400° F

Machinability

Process	Rating
CNC	100%
Multispindle	85%

AVAILABLE IN:

- Wrought
- Continuous Cast
- Centrifugal Cast
- Permanent Mold

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.