

C92800

Continuous Cast

| | |
|-----------------------------|---|
| Product Description: | Leaded Tin Bronze |
| Solids: | ½" to 13" O.D. |
| Tubes: | 1" to 16" O.D. |
| Rectangles: | Up to 20" |
| 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 |

Typical Uses

Industrial bushings, corrosion-resistant castings, piston rings

Similar or Equivalent Specification

| CDA | ASTM | SAE | AMS | Federal | Military | Other |
|--------|---------------|-----|------|---------|----------|-------|
| C92800 | B505 B505M | | 7320 | | | |

Chemical Composition

| Cu% ¹ | Pb% | Sn% | Zn% | Fe% | P% | Ni% ^{1,2} | Al% | S% | Sb% | Si% |
|------------------|---------------|-----------------|------|------|------|--------------------|-------|------|------|-------|
| 78.00- 82.00 | 4.00- 6.00 | 15.00- 17.00 | 0.80 | 0.20 | 1.50 | 0.80 | 0.005 | 0.05 | 0.25 | 0.005 |

Chemical Composition according to ASTM B505/B505M-18

¹In determining Cu min., Cu may be calculated as Cu + Ni. ²Ni value includes Co.
Note: Cu + Sum of Named Elements, 99.3% min. Single values represent maximums.

Machinability

| Copper Alloy UNS No. | Machinability Rating | Density (lb/in ³ at 68 ° F) |
|----------------------|----------------------|--|
| C92800 | 70 | 0.317 |



Physical Properties

| | US Customary | Metric |
|----------------------------------|-------------------------|---------------------|
| Melting Point – Liquidus | 1751 °F | 955 °C |
| Melting Point – Solidus | 1505 °F | 818 °C |
| Specific Heat Capacity | 0.09 Btu/lb/°F at 68 °F | 377.1 J/kg at 20 °C |
| Modulus of Elasticity in Tension | 16000 ksi | 110000 MPa |

Physical Properties provided by CDA

Fabrication Properties

| Technique | Suitability |
|--------------------------|-----------------|
| Soldering | Excellent |
| Brazing* | Good |
| Oxyacetylene Welding | Not Recommended |
| Gas Shielded Arc Welding | Not Recommended |
| Coated Metal Arc Welding | Not Recommended |
| Machinability Rating | 70 |

Fabrication Properties provided by CDA

*Since brazing is performed within the hot-short range, strain must be avoided during brazing and cooling.

Thermal Properties

| Treatment | Value* | Time** |
|--------------------|--------|--------|
| Stress Relief | 500 | |
| Solution Treatment | | 0 |

Thermal Properties provided by CDA

*Temperature is measured in Fahrenheit. **For Stress Relief, Solution Treatment and Annealing - Time is measured in hours/inch of thickness. For Precipitation Heat Treatment - Time is measured in hours.