

C94100

Continuous cast

| | |
|---------------------|---|
| Product description | High-leaded tin bronze |
| Solids | 1/2" to 10" O.D. |
| Tubes | 1" to 16" O.D. |
| Rectangles | Up to 10" |
| 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
Thrust block

Similar or equivalent specification

| CDA | ASTM | SAE | AMS | Federal | Military | Other |
|--------|---------------|-----|-----|--------------|----------------------|-------|
| C94100 | B505 B505M | | | QQ-C-390, E5 | MIL-B-16261, Grade X | |

Chemical composition

| Cu (%) | Pb (%) | Sn (%) | Zn (%) | Fe (%) | P (%) | Ni (%) ¹ | Al (%) | S (%) ² | Sb (%) | Si (%) |
|-------------|-------------|-----------|--------|--------|-------|---------------------|--------|--------------------|--------|--------|
| 72.00-79.00 | 18.00-22.00 | 4.50-6.50 | 1.00 | 0.25 | 1.50 | 1.00 | 0.005 | 0.25 | 0.80 | 0.005 |

Chemical composition according to ASTM B505/B505M-23

¹Ni value includes Co. ²For continuous castings, S shall be 0.25% max.
Note: Cu + sum of named elements, 98.7% min. Single values represent maximums.

Machinability

| Copper alloy UNS no. | Machinability rating | Density (lb/in ³ at 68° F) |
|----------------------|----------------------|---------------------------------------|
| C94100 | 80 | 0.336 |

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Mechanical properties

| Tensile strength, min | | Yield strength, at 0.5% extension under load, min | | Elongation, in 2 in. or 50 mm, min | Brinell hardness (500 kg load) | Remarks |
|-----------------------|-----|---|-----|------------------------------------|--------------------------------|---------|
| ksi | MPa | ksi | MPa | % | typical BHN | |
| 25 | 172 | 17 | 117 | 7 | 50 | |

Mechanical properties according to ASTM B505/B505M-23