



## SILICON RED BRASS

### EQUIVALENT SPECIFICATIONS

| SPECIFICATIONS | DESIGNATION  |
|----------------|--------------|
| ISO            | CuZn37pb1Sn1 |
| European       | CuZn37pb1Sn1 |
| Czech Republic | CuZn37pb1Sn1 |
| Portugal       | CuZn37pb1Sn1 |

Excellent hot and cold workability; good forge ability. Fabricated by bending, coining, coppersmith, drawing and upsetting, hot forging and pressing, knurling, roll threading, shearing, spinning, swaging, and stamping.

### TYPICAL APPLICATIONS:

**Industrial:** Valves Stems

### CHEMICAL COMPOSITION

|          | As          | Cu          | Fe  | Pb  | Si        | Zn      |
|----------|-------------|-------------|-----|-----|-----------|---------|
| Min/Max  | 0.03 - 0.06 | 80.0 - 83.0 | 0.2 | 0.3 | 3.5 - 4.5 | Rem     |
| Nominals | 0.0400      | 81.5000     | -   | -   | 4.0000    | 14.5000 |

### PHYSICAL PROPERTIES

|                                  |   |
|----------------------------------|---|
| Coefficient of Thermal Expansion | 11.2 Å • 10 <sup>-6</sup> per oF (68-572 F)           |
| Density                          | 0.26 lb/in <sup>3</sup> at 68 F                       |
| Electrical Conductivity          | 6 %IACS @ 68 F  |
| Electrical Resistivity           | 167.0 ohms-cmil/ft @ 68 F                             |
| Melting Point - Liquidus         | 1685 F  |
| Melting Point - Solidus          | 1510 F  |
| Modulus of Elasticity in Tension | 16000 ksi   |
| Specific Gravity                 | 8.19  |
| Specific Heat Capacity           | 0.09 Btu/lb/oF at 68 F                                |
| Thermal Conductivity             | 15.0 Btu Å • ft/(hr Å • ft <sup>2</sup> Å • oF)at 68F |

### SIZES AVAILABLE :

|                     |                                       |
|---------------------|---------------------------------------|
| WIRE                | 1mm TO 8 mm                           |
| HOLLOW RODS/BARS    | Min Bore Size 20 mm and Max OD 100 mm |
| ROUND RODS          | 6mm To 130 mm                         |
| HEX                 | 5mm To 60mm                           |
| SQUARE              | 4mm To 60mm                           |
| FLAT                | 5mm Min Thickness and max Width 120mm |
| PROFILES / SECTIONS | AS per Customer Drawing               |
| BILLETS             | Up to 200mm                           |
| INGOTS              | AS per Specification                  |

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