



## ALUMINUM BRONZE

### EQUIVALENT SPECIFICATIONS

| SPECIFICATIONS | DESIGNATION |
|----------------|-------------|
| ISO            | CuAl8Fe3    |
| European       | CuAl8Fe3    |
| BS             | AS 106      |
| JIS            | C 6140      |

C61400 Copper Aluminum Bronze Alloy has excellent mechanical properties and ductility. With excellent corrosion resistance, this alloy is suitable for high load applications and applications with high-pressure requirements.

### TYPICAL USES :

**FASTENERS:** Threaded Members, Stringers, Bolts, Nuts **INDUSTRIAL:** Piping Systems, Structural Components, Machine Parts, Corrosion Resistant Vessels, Sea Water Piping, Condenser Tube and Piping Systems, Tube Sheets, Welded Pipe, Seamless Tubing and Pipe, Chutes for Abrasive Grains, Heat Exchanger Tubes, Mining Shovels, Tanks, Condenser Head Plates

**MARINE:** Fasteners, Protective Sheathing, Pressure Vessels, Marine Hardware, Welded Tanks **ORDINANCE:** Blending Chambers

### CHEMICAL COMPOSITION

|          | Al        | Cu      | Fe        | Pb   | Mn | P     | Zn  |
|----------|-----------|---------|-----------|------|----|-------|-----|
| Min/Max  | 6.0 - 8.0 | Rem     | 1.5 - 3.5 | 0.01 | 1  | 0.015 | 0.2 |
| Nominals | 7.0000    | 91.0000 | 2.0000    | -    | -  | -     | -   |

### PHYSICAL PROPERTIES

| Product Property                 | US Customary   |
|----------------------------------|--|
| Coefficient of Thermal Expansion | 9.0 $\times 10^{-6}$ per oF (68-572 F)   |
| Density                          | 0.285 lb/in <sup>3</sup> @ 68 F  |
| Electrical Conductivity          | 14 %IACS @ 68 F  |
| Electrical Resistivity           | 74.1 ohms-cmil/ft @ 68 F   |
| Melting Point Liquid US          | 1915 F   |
| Melting Point Solid US           | 1905 F   |
| Modulus of Elasticity in Tension | 17000 ksi  |
| Modulus of Rigidity              | 6400 ksi   |
| Specific Gravity                 | 7.89   |
| Specific Heat Capacity           | 0.09 Btu/lb/ $^{\circ}$ F @ 68 F   |
| Thermal Conductivity             | 39.0 Btu $\hat{A}$ $\cdot$ ft/(hr $\hat{A}$ $\cdot$ ft <sup>2</sup> $\hat{A}$ $\cdot$ $\hat{A}$ $^{\circ}$ F) @ 68 F |

### SIZES AVAILABLE :

|             |  |
|-------------|--|
| ROUND RODS/ | 8mm To 100 mm                          |
| HEX         | 10mm To 60mm                           |
| SQUARE      | 10mm To 60mm                           |
| FLAT        | 10mm Min Thickness and max Width 120mm |
| BILLETS     | Up to 200 mm                           |
| INGOTS      | As per Specification                   |

### Regd. Office & Plant

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