# AMS4640 Grade C63000 (ALUM BRONZE)



# WROUGHT PRODUCT /EXTRUDED COLD DRAWN ROD

# **ABOUT C63000**

Has high strength with excellent corrosion resistance for marine conditions.

Is suitable for components of heavy load at slow speeds.

Has very good resistance to wear, fatigue and deformation.

Has very good acid resistance.

Has good anti- galling properties.

## **EQUIVALENT TO**

Britain

USA ASTM B150 C63000

Japan

Germany CuAl10Ni5Fe4

#### **NOMINAL CHEMICAL ANALYSIS**

|              | (1        |            | HEMICA<br>Im % Ur | OTHER ELEMENTS (#NOTES) |           |              |             |            |                         |  |
|--------------|-----------|------------|-------------------|-------------------------|-----------|--------------|-------------|------------|-------------------------|--|
| Copper<br>Cu | Tin<br>Sn | Zinc<br>Zn | Nickel<br>Ni      | Silicon<br>Si           | Phos<br>P | Alum<br>Al   | Iron<br>Fe  | Mang<br>Mn | OTHER ELEMENTS (*NOTES) |  |
| REM          | 0.20      | 0.30       | 4.0-<br>5.5       | 0.25                    |           | 9.0-<br>11.0 | 2.0-<br>4.0 | 1.5        |                         |  |

## **MECHANICAL PROPERTIES**

| TENSILE STR | ENGTH min |     | ELONGATION<br>(in 4D MIN.) | YIELD STF | _   | HARDNESS |         |
|-------------|-----------|-----|----------------------------|-----------|-----|----------|---------|
| Drawn       | MPa       | KSi | Drawn                      | MPa       | KSi | НВ       | HRB     |
| Up to 1"    | 760       | 110 | 10                         | 470       | 88  | 201-248  | 92 -99  |
| 1" to 2"    | 760       | 110 | 10                         | 415       | 60  | 201-248  | 92 - 99 |
| 2" to 3"    | 725       | 105 | 10                         | 380       | 55  | 187-241  | 89 -98  |
| 3" to 5"    | 690       | 100 | 10                         | 345       | 50  | 187-241  | 89 - 98 |

| Compressive Strength 0.1% Permanent Set         |  |
|---|--|
| Specific Gravity                                |  |
| Machinability Rating (Free Machining Brass=100) |  |
| Max. Operating Temperature                      |  |
| Stress Relieving Temperature                    |  |
| Time at Temperature                             |  |

#### **APPLICATIONS**

- Heavy Load Bearings
- Aircraft Parts
- Pump parts
- Marine, Chemical ,Desalination
- Valves guides
- Rock Drill Parts

- Crusher Bearings
- Heat exchanger flanges
- Irrigation Equipment
- Rollers
- Washers
- Wear Rings & plates