



SHREE EXTRUSIONS LIMITED



CW307G

NICKEL ALUMINUM BRONZE

EQUIVALENT SPECIFICATIONS

| SPECIFICATIONS | DESIGNATION |
|----------------|--------------|
| ISO | CuAl10Ni5Fe4 |
| European | CuAl10Ni5Fe4 |
| BS | CA 104 |
| JIS | C 6301 |
| Russian | BrAZN10.4.4 |

AMS 4640

CW307G (AMS 4640) Nickel Aluminum Bronze alloy is an excellent choice for applications involving heavy loads, abrasive wear resistant, friction, abrasive wear and corrosion. The addition of nickel increases the alloys strength without diminishing its excellent ductility, toughness and corrosion resistance. Typical applications include aircraft landing gear components, strut bearings, main pistons, trunnion bearings and similar vital components.

Typical Uses for CW307G Nickel Aluminum Bronze:

INDUSTRIAL: Hydraulic Bushings for Earth Moving Equipment, Corrosion Resistant Articles, Bushings, Bearings, Heat Exchanger Flanges, Heat Exchanger Headers, Tanks, Valve Balls, Structural Members, Pump Shafts, Aircraft Parts, Valve Guides, Plunger Tips, Welded Piping Systems, Balls, Gears, Cams, Pump Parts, Shafting, Condenser Tube for Power Stations and Desalting Units, Valve Seats **MARINE:** Pump Parts, Bolts, Nuts, Propellers, Ship Propellers **PLUMBING:** Faucets

CHEMICAL COMPOSITION

| | Al | Cu | Fe | Mn | Ni | Si | Sn | Zn |
|----------|------------|---------|-----------|-----|-----------|------|-----|-----|
| Min/Max | 9.0 - 11.0 | Rem | 2.0 - 4.0 | 1.5 | 4.0 - 5.5 | 0.25 | 0.2 | 0.3 |
| Nominals | 10.0000 | 82.0000 | 3.0000 | - | 5.0000 | - | - | - |

PHYSICAL PROPERTIES

| Product Property | US Customary |
|----------------------------------|--|
| Coefficient of Thermal Expansion | 9.0 $\times 10^{-6}$ per oF (68-572 F) |
| Density | 0.274 lb/in ³ @ 68 F |
| Electrical Conductivity | 7 %IACS @ 68 F |
| Electrical Resistivity | 116.0 ohms-cmil/ft @ 68 F |
| Melting Point Liquid US | 1930 F |
| Melting Point Solid US | 1895 F |
| Modulus of Elasticity in Tension | 17500 ksi |
| Modulus of Rigidity | 6400 ksi |
| Specific Gravity | 7.58 |
| Specific Heat Capacity | 0.09 Btu/lb/ Δ° F @ 68 F |
| Thermal Conductivity | 22.6 Btu Δ° ft/(hr Δ° ft ² Δ° 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 |

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