



SHREE EXTRUSIONS LIMITED

CuAl10Ni5Fe4

NICKEL ALUMINUM BRONZE

EQUIVALENT SPECIFICATIONS

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

AMS 4640

CuAl10Ni5Fe4 (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 CuAl10Ni5Fe4 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

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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