



C64200

SILICON ALUMINUM BRONZE (AMS 4631, 4634)

WWW.NBMMETALS.COM

THE LEADING USA MANUFACTURER & MASTER DISTRIBUTOR OF BRONZE, BRASS & COPPER ALLOYS



Offered in solid bars.

Silicon aluminum bronze combines the self lubricity of the silicon with the higher mechanical properties of aluminum bronze and is sometimes used in place of C63000 where specifications permit. C64200 is free-machining and has good anti-galling and anti-seizing properties. Typical applications involve valve stems, gears, marine and pole line hardware, wing pylons, bolts, nuts, bushings and valve body components.

Sizes Available From NBM

SOLID BAR 3/16" - 8" diameter
 HEX BAR 5/8" - 2 1/2" across the flats

Spec Equivalents

ASTM B-124, B-150, B-249
 AMS 4631, 4634
 ASME SB 150
 SAE J463, J461

Euro Equivalents

Designation
 CuAl7Si2 | CW302G

Standard
 EN 12420 : 1999

Chemical Composition

	Cu ⁽¹⁾	Al	As	Fe	Pb	Mn	Ni ⁽²⁾	Si	Sn	Zn
min/max	Rem	6.3-7.6	.09	.30	.05	.10	.25	1.5-2.2	.20	.50
nominal	91.2	7.0	-	-	-	-	-	1.8	-	-

(1) Cu value includes Ag.
 (2) Ni value includes Co.
 Note: Cu + Sum of Named Elements, 99.5% min.

General Notes

We also offer an extruded only condition of C64200 which is suitable for hot forging applications

Typical Uses

Aerospace

Landing Gear Parts, Strut Bushings

Oil & Gas

Rock Bit Bearing Bushings, Blowout Preventer Parts, Wellhead Components

Automotive

Valve Guides, Automobile Engine Cam Parts, Safety Belt Assemblies

Electrical

Pole Line Hardware

Fasteners

Bolts, Nuts

Other Industrial

Valve and Pump Components, Valve Bodies, Gears, Valve Stems, Cams, Hooks, Forged and Machined Components

Marine

Hardware, Pins, Fasteners



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ISO 9001:2008



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Room Temp Tensile & Hardness Data

FORM	TEMPER	SECTION SIZE (INCHES)	TENSILE STRENGTH (KSI) MIN	YIELD STRENGTH (KSI) MIN	ELONGATION IN HD MIN	ROCKWELL HARDNESS (B)	SHEAR STRENGTH (ksi)	FATIGUE STRENGTH (ksi)
ROD	H04	1.5	93	60	26%	90	-	-
	H04	0.75	102	68	22%	94	59	50

Physical Properties

Melting Point - Liquidus	1840 F
Melting Point - Solidus	1800 F
Density	0.278 lb/in ³ at 68 F
Specific Gravity	7.69
Electrical Resistivity	113.0 ohms-cmil/ft @ 68 F
Electrical Conductivity	8 %IACS @ 68 F
Thermal Conductivity	26.0 Btu · ft/(hr · ft ² ·°F) at 68F
Coefficient of Thermal Expansion	10.0 · 10 ⁻⁶ per °F (68-572 F)
Specific Heat Capacity	0.09 Btu/lb/°F at 68 F
Modulus of Elasticity in Tension	16000 ksi
Modulus of Rigidity	6000 ksi
Machinability Rating	60

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