



## C64200 Alloy from Concast

Concast Metal Products Co. has been successfully satisfying a broad range of applications and industries with our wrought products. Specifically, our **C64200 aluminum bronze** alloy is used in the power generation/energy, aerospace, automotive markets and industrial applications.

**Automotive**  
Valve Guides | Automobile Engines

**Electrical**  
Pole Line Hardware

**Fasteners**  
Nuts | Bolts

**Industrial**  
Valve Bodies | Valve Stems | Gears  
Cams | Valve Components

**Marine**  
Hardware



C64200 Is a Concast Standard-Stocked Alloy

P.O. Box 816 | Mars, PA 16046  
**800.626.7071** | **724.538.3956** fax  
www.concast.com | sales@concast.com

▶ All Concast plants are ISO 9001 certified

www.concast.com



## C64200 Alloy Similar or Equivalent Specification

CDA	ASTM	ASARCON	SAE	AMS	FEDERAL	MILITARY	OTHER
C64200	B150, B150M		J461, J463	4631	QQ-C-465B AMD1		

## C64200 Alloy Chemical Composition

Cu%	Sn%	Pb%	Zn%	Fe%	Ni%	Al%	Mn%	Si%	As%	
Rem.	0.20	0.05	0.50	0.30	0.25	6.30-7.60	0.10	1.50-2.20	0.15	Chemical Composition according to ASTM B150/B150M-14. Note: Single values represent maximums.

## C64200 Alloy Physical Properties

	US Customary	Metric	
Melting Point - Liquidus	1840° F	1004° C	Physical Properties provided by CDA.
Melting Point - Solidus	1800° F	982° C	
Density	0.278 lb/in <sup>3</sup> at 68° F	7.69 gm/cm <sup>3</sup> at 20° C	
Specific Gravity	7.69	7.69	
Electrical Conductivity	8% IACS at 68° F	0.047 MegaSiemens/cm at 20° C	
Thermal Conductivity	26 Btu · ft/(hr · ft <sup>2</sup> · °F) at 68° F	45 W/m at 20° C	
Coefficient of Thermal Expansion	10 · 10 <sup>-6</sup> per °F (68°-572° F)	17.3 · 10 <sup>-6</sup> per °C (20°-300° C)	
Specific Heat Capacity	0.090 Btu/lb/°F at 68° F	377.1 J/kg at 293° K	
Modulus of Elasticity in Tension	16000 ksi	110000 MPa	
Modulus of Rigidity	6000 ksi	41370 MPa	

## C64200 Alloy Mechanical Properties

SIZE RANGE: ½" AND UNDER						Mechanical Properties according to ASTM B150/B150M-14 HR50 Drawn and Stress Relieved Temper
Tensile Strength, min	Yield Strength at .5% extension under load min		Elongation, 4x diameter or specimen thickness	Rockwell "B" Hardness	Remarks	
ksi	MPa	ksi	MPa	%	min to max HRB	
90	620	45	310	9		
SIZE RANGE: ½" TO 1" ROD						
Tensile Strength, min	Yield Strength at .5% extension under load min		Elongation, 4x diameter or specimen thickness	Rockwell "B" Hardness	Remarks	
ksi	MPa	ksi	MPa	%	min to max HRB	
85	585	45	310	12	80-100	
SIZE RANGE: OVER 1" TO 2" INCLUSIVE ROD						
Tensile Strength, min	Yield Strength at .5% extension under load min		Elongation, 4x diameter or specimen thickness	Rockwell "B" Hardness	Remarks	
ksi	MPa	ksi	MPa	%	min to max HRB	
80	550	42	290	12	80-100	
SIZE RANGE: OVER 2" TO 3" INCLUSIVE ROD						
Tensile Strength, min	Yield Strength at .5% extension under load min		Elongation, 4x diameter or specimen thickness	Rockwell "B" Hardness	Remarks	
ksi	MPa	ksi	MPa	%	min to max HRB	
75	575	35	240	15	70-95	

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Copper Development Association Inc.  
Copper Alliance

