

C91000 Tin Bronze

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- **Bronze C91000:** High Tin Bronze
- **Solids:** 1" to 6" OD
- **Tubes:** 1" to 6" OD
- **Rectangles:** Up to 10"
- **Standard Lengths:** 144"

SIMILAR OR EQUIVALENT SPECIFICATION

CDA	ASTM	ASARCON	SAE	AMS	Federal	Ingot#	Military	Other Desc
C91000	ASTM B505		SAE J461		QQ-C-390B TYPE III	197	MIL-B-16262 GRADE III	
			SAE J462		QQ-B-1005 COMP 9			

CHEMICAL COMPOSITION (ACCORDING TO ASTM B505-08)

Cu%	Sn%	Pb%	Zn%	Fe%	Ni%	Sb%	P%	S%	Al%	Mn%	Si%
84.00-86.00	14.00-16.00	0.20	1.50	0.10	0.80A	0.20	1.5	0.05	0.005	N/A	0.005

Note: Single values represent maximums.

- A In determining copper minimum, copper may be calculated as copper plus nickel.

MECHANICAL PROPERTIES (ACCORDING TO ASTM B505-08)

Tensile Strength (min)		Yield Strength (at .5% extention under load min)		Elongation (in 2in. or 50mm min, %)		Brinell Hardness (min)		Remarks
Ksi	MPa	Ksi	MPa					
30	207	N/A	N/A	N/A		N/A		

MACHINABILITY

Alloy	Rating	Density
C91000	20	0.317

PHYSICAL PROPERTIES (PROVIDED BY CDA)

	US Customary	Metric
Melting Point - Liquidus	1760 F	960 C

	US Customary	Metric
Melting Point - Solidus	1505 F	818 C
Electrical Resistivity	111.40 ohms-cmil/ft @ 68 F	18.52 microhm-cm @ 20 C
Electrical Conductivity	9 %IACS @ 68 F	0.054 MegaSiemens/cm @ 20 C
Specific Heat Capacity	0.090 Btu/lb/°F at 68 F	377.1 J/kg · °K at 293 K
Modulus of Elasticity in Tension	16000 ksi	11000 MPa

FABRICATION PROPERTIES (PROVIDED BY CDA)

Joining Technique	Suitability
Soldering	<i>Excellent</i>
Brazing	<i>Good</i>
Oxyacetylene Welding	<i>Fair</i>
Gas Shielded Arc Welding	<i>Fair</i>
Coated Metal Arc Welding	<i>Fair</i>

THERMAL PROPERTIES (PROVIDED BY CDA)

Treatment	Temp./Time - US	Temp./Time - SI
Stress Temperature	500	260
Solution Minimum		
Solution Maximum		
Solution Time	0.0	
Solution Medium	None	
Precipitation Value		
Precipitation Time		
Precipitation Medium	None	
Annealing Minimum		
Annealing Maximum		
Annealing Time		
Hot Works Minimum		
Hot Works Maximum		

ADDEESS:

Conex Bronze Fittings

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KEYWORDS:
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