

C91700 Tin Bronze

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- **Bronze Family:** 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
C91700	ASTM B427	N/A	N/A	N/A	N/A	ASTM B30	N/A	Sand

CHEMICAL COMPOSITION (ACCORDING TO ASTM B505-08)

Cu%	Sn%	Pb%	Zn%	Fe%	Ni%	Sb%	P%	S%	Al%	Mn%	Si%
84.00-87.00	11.3-12.5	0.25	0.25	0.20	1.2-2.0	0.20	0.30	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.

MACHINABILITY

Alloy	Rating	Density
C91700	20	0.320

PHYSICAL PROPERTIES (PROVIDED BY CDA)

	US Customary	Metric
Melting Point - Liquidus	1859 F	1015 C
Melting Point - Solidus	1563 F	851 C
Specific Gravity	8.75	8.75
Electrical Resistivity	103.7 ohms-cmil/ft @ 68 F	17.24 microhm-cm @ 20 C
Electrical Conductivity	10 %IACS @ 68 F	0.058 MegaSiemens/cm @ 20 C
Thermal Conductivity	40.8 Btu · ft/(hr · ft ² ·oF)at 68F	70.6 W/m · oK at 20 C
Coefficient of Thermal Expansion	9.0 ·10-6 per oF (68-392 F)	16.2 ·10-6 per oC (20-200 C)

	US Customary	Metric
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	110000 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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