

C67300

Wrought

Product Description:	Manganese Bronze
Tempers:	H02 Half-Hard
Solid Rounds:	3/4" to 3" OD
Hex:	Consult Mill
Rectangles:	Consult Mill
Standard Lengths:	144"

Typical Uses

Fasteners	fasteners, lead screw nuts
Industrial	bearings, bushings, drive shafts, gears/cams, idler pins, piston heads, propeller shafts, pump parts, seal rings, shaft bushings, sleeve bearings, spindles, thrust bearings, wear plates, clutch bearings
Marine	hardware, valve seats
Other	connecting rods

Similar or Equivalent Specification

CDA	ASTM	ASARCON	SAE	AMS	FEDERAL	MILITARY	OTHER
C67300			J461 J463				

Chemical Composition

Cu% ¹	Pb%	Sn%	Zn%	Fe%	Ni% ²	Al%	Mn%	Si%
58.00- 63.00	0.40- 3.00	0.30	Rem.	0.50	0.25	0.25	2.00- 3.50	0.50- 1.50

Chemical Composition according to SAE J461 and SAE J463

¹Cu value includes Ag.

²Ni value includes Co.

Note: Cu + Sum of Named Elements, 99.5% min. Single values represent maximums.

Machinability

Copper Alloy UNS No.	Machinability Rating	Density (lb/cu in at 68°)
C67300	70	0.300

Mechanical Properties

C67300 continued

Mechanical Properties according to SAE J461 AND SAE J463
C67300
H02 Half-Hard

SIZE RANGE: UP TO 1" INCLUSIVE

Tensile Strength, min		Yield Strength, at .5% Extension Under Load, min		Elongation, in 2 in. or 50 mm min	Rockwell "B" Hardness	Remarks
ksi	MPa	ksi	MPa	%	min HRB	
65	448	40	276	12	70	

SIZE RANGE: OVER 1" TO 3" INCLUSIVE

Tensile Strength, min		Yield Strength, at .5% Extension Under Load, min		Elongation, in 2 in. or 50 mm min	Rockwell "B" Hardness	Remarks
ksi	MPa	ksi	MPa	%	min HRB	
58	400	35	241	15	70	

SIZE RANGE: OVER 3"

Tensile Strength, min		Yield Strength, at .5% Extension Under Load, min		Elongation, in 2 in. or 50 mm min	Rockwell "B" Hardness	Remarks
ksi	MPa	ksi	MPa	%	min HRB	
55	380	30	205	18	65	

Physical Properties

	US Customary	Metric
Melting Point – Liquidus	1605° F	874° C
Density	0.3 lb/in ³ at 68° F	8.3 gm/cm ³ at 20° C
Specific Gravity	8.3	8.3
Electrical Conductivity	22% IACS at 68° F	0.13 MegaSiemens/cm at 20° C
Thermal Conductivity	55 Btu · ft/(hr · ft ² · °F) at 68° F	95 W/m at 20° C
Coefficient of Thermal Expansion	11 · 10 ⁻⁶ per °F (68°-572° F)	19 · 10 ⁻⁶ per °C (20°-300° C)
Modulus of Elasticity in Tension	17000 ksi	117210 MPa

Physical Properties provided by CDA

