

# C67300

Extruded

<b>Product Description:</b>	Manganese Bronze
<b>Tempers:</b>	H02 Half Hard
<b>Solids:</b>	¾" to 3" O.D.
<b>Hex:</b>	Consult Mill
<b>Rectangles:</b>	Consult Mill
<b>Standard Lengths:</b>	144"

## Typical Uses

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

## Similar or Equivalent Specification

CDA	ASTM	SAE	AMS	Federal	Military	Other
C67300		J461 J463				

## Chemical Composition

Cu%	Pb%	Sn%	Zn%	Fe%	Ni% <sup>1</sup>	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 J463

<sup>1</sup>Ni value includes Co.  
Note: Single values represent maximums.

## Machinability

Copper Alloy UNS No.	Machinability Rating	Density (lb/in <sup>3</sup> at 68 ° F)
C67300	70	0.300

## Mechanical Properties

Mechanical Properties according to SAE J463  
C67300  
H02 Half Hard

### SIZE RANGE: UP TO 1" INCLUSIVE

Tensile Strength, min		Yield Strength, at 0.5% Extension Under Load, min		Elongation, in 4x Diameter or Thickness of Specimen, min	Rockwell "B" Hardness	Remarks
ksi	MPa	ksi	MPa	%	min HRB	
65	450	40	275	12	70	

### SIZE RANGE: OVER 1" TO 3" INCLUSIVE

Tensile Strength, min		Yield Strength, at 0.5% Extension Under Load, min		Elongation, in 4x Diameter or Thickness of Specimen, min	Rockwell "B" Hardness	Remarks
ksi	MPa	ksi	MPa	%	min HRB	
58	400	35	240	15	70	

### SIZE RANGE: OVER 3"

Tensile Strength, min		Yield Strength, at 0.5% Extension Under Load, min		Elongation, in 4x Diameter or Thickness of Specimen, min	Rockwell "B" Hardness	Remarks
ksi	MPa	ksi	MPa	%	min HRB	
52	360	30	205	18	65	

## Physical Properties

	US Customary	Metric
Melting Point – Liquidus	1605 °F	874 °C
Density	0.3 lb/in <sup>3</sup> at 68 °F	8.3 gm/cm <sup>3</sup> 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/sq ft/ft hr/°F at 68 °F	95 W/m at 20 °C
Coefficient of Thermal Expansion 68-572	11 · 10 <sup>-6</sup> per °F (68-572 °F)	19 · 10 <sup>-6</sup> per °C (20-300 °C)
Modulus of Elasticity in Tension	17000 ksi	117212 MPa

Physical Properties provided by CDA