

C67300

Standard-stocked product	Extruded and drawn
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Product description	Manganese bronze
Tempers	H02 half hard
Solids	3/4" to 3" O.D.
Hex	Consult mill
Standard lengths	144"

Typical uses

Fasteners

Fasteners, lead screw nuts

Industrial

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

Marine

Hardware, valve seats

Other

Connecting rods

Similar or equivalent specification

CDA	ASTM	SAE	AMS	Federal	Military	Other
C67300		J461 J463				

Chemical composition

Cu (%)	Pb (%)	Sn (%)	Zn (%)	Fe (%)	Ni (%) ¹	Al (%)	Mn (%)	Si (%)
58.00-63.00	0.40-3.00	0.30	Remain	0.50	0.25	0.25	2.00-3.50	0.50-1.50

Chemical composition according to SAE J463

¹Ni value includes Co.

Note: Single values represent maximums.

Machinability

Copper alloy UNS no.	Machinability rating	Density (lb/in ³ at 68 ° F)
C67300	70	0.300

C67300 continued

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 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/sq ft/ft hr/°F at 68 °F	95 W/m at 20 °C
Coefficient of thermal expansion 68-572	11 · 10 ⁻⁶ per °F (68-572 °F)	19 · 10 ⁻⁶ per °C (20-300 °C)
Modulus of elasticity in tension	17000 ksi	117212 MPa

Physical properties provided by CDA

Common fabrication processes

Hot forming, hot pressing, machining

Common fabrication processes provided by CDA