

C64210

Extruded and drawn

Product description	Aluminum silicon bronze
Tempers	HR50 drawn and stress relieved
Solids	5/16" to 3" O.D.
Hex	1/2" to 2" O.D.
Standard lengths	144"

Typical uses

Electrical

Pole line hardware

Industrial

Bearings (high strength/corrosion resistant), bushings (aircraft), chemical-process equipment, pickling equipment, valve bodies, valve stems

Marine

Bolts, lock washers, nuts, screws

Similar or equivalent specification

CDA	ASTM	SAE	AMS	Federal	Military	Other
C64210	B150 B150M					

Chemical composition

Cu (%) ¹	Pb (%)	Sn (%)	Zn (%)	Fe (%)	Ni (%) ²	Al (%)	Mn (%)	Si (%)	As (%)
Remain	0.05	0.20	0.50	0.30	0.25	6.30-7.00	0.10	1.50-2.00	0.15

Chemical composition according to ASTM B150/B150M-19

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/in ³ at 68 ° F)
C64210	60	0.278

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Mechanical properties

Mechanical properties according to ASTM B150/B150M-19
 C64210
 HR50 drawn and stress relieved temper (unless noted otherwise)

Size range under 1/2" rod and bar

Tensile strength, min		Yield strength, at 0.5% extension under load, min		Elongation, 4x diameter or specimen thickness, min	Rockwell "B" hardness	Remarks
ksi	MPa	ksi	MPa	%	min to max HRB	
90	620	45	310	9	80-100	

Size range 1/2" to 1" rod and bar inclusive

Tensile strength, min		Yield strength, at 0.5% extension under load, min		Elongation, 4x diameter or specimen thickness, min	Rockwell "B" hardness	Remarks
ksi	MPa	ksi	MPa	%	min to max HRB	
85	585	45	310	12	80-100	

Size range over 1" to 2" rod and bar inclusive

Tensile strength, min		Yield strength, at 0.5% extension under load, min		Elongation, 4x diameter or specimen thickness, min	Rockwell "B" hardness	Remarks
ksi	MPa	ksi	MPa	%	min to max HRB	
80	550	42	290	12	80-100	

Size range over 2" to 3" rod and bar inclusive

Tensile strength, min		Yield strength, at 0.5% extension under load, min		Elongation, 4x diameter or specimen thickness, min	Rockwell "B" hardness	Remarks
ksi	MPa	ksi	MPa	%	min to max HRB	
75	515	35	240	15	70-95	

Size range over 3" to 4" rod and bar inclusive (M20 as hot rolled)

Tensile strength, min		Yield strength, at 0.5% extension under load, min		Elongation, 4x diameter or specimen thickness, min	Rockwell "B" hardness	Remarks
ksi	MPa	ksi	MPa	%	min to max HRB	
70	485	30	205	15	65-95	

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Size range over 4" rod and bar (M30 as hot extruded)

Tensile strength, min		Yield strength, at 0.5% extension under load, min		Elongation, 4x diameter or specimen thickness, min	Rockwell "B" hardness	Remarks
ksi	MPa	ksi	MPa	%	min to max HRB	
70	485	25	170	15	65-95	

Physical properties

	US customary	Metric
Density	0.278 lb/in ³ at 68 °F	7.7 gm/cm ³ at 20 °C
Specific gravity	7.7	7.7

Physical properties provided by CDA