

AMS 4634-C64200

C642 aluminum bronze offers excellent corrosion resistance, machinability, and strength. It is a standard-stocked item in 32 of the most popular sizes.

Product description	Aluminum bronze
Tempers	HR50 drawn and stress relieved
Solids	3/16" to 6" O.D.
Hex*	1/2" to 2" O.D.
Standard lengths	144" *Available, but not standard stocked

Wieland Concast certifications

- AS9100:2016-certified quality management system
- ISO 9001:2015-certified quality management system

Standard stocked

Wieland Concast provides C642 as a standard-stocked product

Typical uses:

Automotive:

- valve guides (automobile engine)

Electrical:

- pole line hardware

Fasteners:

- bolts, nuts

Industrial:

- cams, gears, valve bodies, valve components, valve stems

Marine:

- hardware



AMS 4634-C64200 overview

Chemical composition

Cu (%) ¹	Pb (%)	Sn (%)	Zn (%)	Fe (%)	Ni (%) ²	Al (%)	Mn (%)	Si (%)
Remain	0.05	0.20	0.50	0.30	0.25	6.30-7.60	0.10	1.50-2.20

Chemical composition according to AMS 4634

¹Cu value includes Ag. ²Ni value includes Co.
Note: Cu + sum of named elements, 99.5% min. Single values represent maximums.

Mechanical properties

Size range, bars and rods inclusive	Tensile strength, min		Yield strength, at 0.5% extension under load, min		Elongation, in 4D, min	Hardness, internal
	ksi	MPa	ksi	MPa		
inches					%	HRB
up to 1/2	90	621	45	310	9	>80 inclusive
over 1/2 to 1	85	586	45	310	12	>80 inclusive
over 1 to 2	80	552	42	290	12	>80 inclusive
over 2 to 3	75	517	35	241	15	>80 inclusive

Stocked size schedule

Size O.D.	Weight per inch	Weight per foot	Size O.D.	Weight per inch	Weight per foot	Size O.D.	Weight per inch	Weight per foot
0.1875	0.008	0.092	0.8750	0.170	2.036	2.0000	0.876	10.507
0.2500	0.014	0.170	0.9375	0.194	2.326	2.1250	1.005	12.063
0.3125	0.022	0.268	1.0000	0.222	2.664	2.2500	1.122	13.464
0.3750	0.031	0.369	1.0625	0.249	2.984	2.3750	1.339	16.067
0.4375	0.042	0.509	1.1250	0.279	3.351	2.5000	1.389	16.672
0.5000	0.055	0.665	1.2500	0.343	4.113	2.7500	1.664	19.972
0.5625	0.070	0.838	1.3750	0.415	4.977	3.0000	1.988	23.854
0.6250	0.086	1.026	1.5000	0.504	6.053	4.0000	3.557	42.686
0.6875	0.104	1.252	1.6250	0.582	6.978	5.0000	5.456	65.468
0.7500	0.125	1.504	1.7500	0.674	8.090	6.0000	8.027	96.319
0.8125	0.145	1.736	1.8750	0.771	9.250			

For further information please contact us here:

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