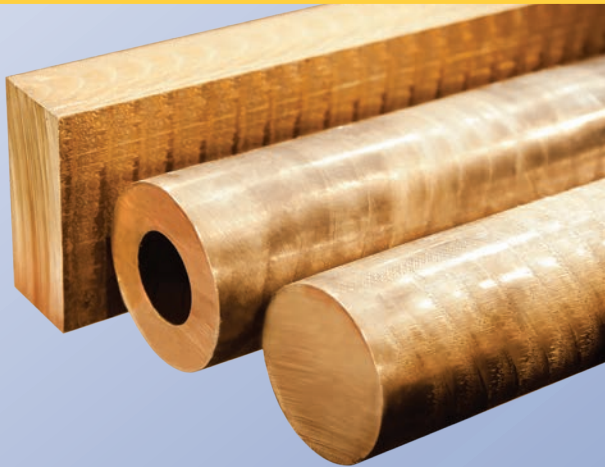




Proven Integrity. Delivering Value.

Standard-Stocked Line Card



■ Continuous Cast Products

- C86300 Manganese Bronze
- C89835 Bismuth Tin Bronze
- C90300 Tin Bronze
- C93200 Leaded Tin Bronze
- C95400 Aluminum Bronze
- C95500 Nickel Aluminum Bronze
- AMS 4880-C95510 Nickel Aluminum Bronze
- C95900 Aluminum Bronze

■ Extruded and Drawn Products

- C14500 Tellurium Copper
- C31400 Leaded Commercial Bronze
- C51000 Phosphor Bronze
- C54400 Phosphor Bronze
- AMS 4640-C63000 Nickel Aluminum Bronze
- AMS 4590-C63020 Nickel Aluminum Bronze
- AMS 4634-C64200 Aluminum Bronze
- C67300 Manganese Bronze
- C72900 Copper Nickel-Tin Bronze*

*AMS 4596, 4597, 4598

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■ Concast Metal Products Co. is certified to ISO 9001 and AS9100

Continuous Cast Products

Copper Alloy UNS No.	Material Description	Chemical Properties												Mechanical Properties			Typical Uses		
		Cu%	Pb%	Sn%	Zn%	Fe%	P%	Ni% ³	Al%	Mn%	S%	Sb%	Si%	Tensile ksi	Yield ksi	Elong. %			
C83600	Leaded Red Brass	84.00-86.00 ¹	4.00-6.00	4.00-6.00	4.00-6.00	0.30	1.50	1.00	0.005				0.08	0.25	0.005	36	19	15	ornamental fixtures, pump parts, hardware, couplings
C86300*	Manganese Bronze	60.00-66.00 ¹	0.20	0.20	22.00-28.00	2.00-4.00		1.00	5.00-7.50	2.50-5.00						110	62	14	brackets, switches, nuts, bushings, marine hardware
C86500	Manganese Bronze	55.00-60.00 ¹	0.40	1.00	36.00-42.00	0.40-2.00		1.00	0.50-1.50	0.10-1.50						70	25	25	weld guns, brackets, struts, marine propellers, hooks
C89835 ^{3A}	Bismuth Tin Bronze	85.00-89.00	0.09	6.00-7.50	2.00-4.00	0.20	0.10	1.00	0.005				0.08	0.35	0.005	30	14	6	faucets, pump components, housings, small gears
C90300*	Tin Bronze	86.00-89.00 ¹	0.30	7.50-9.50	3.00-5.00	0.20	1.50	1.00	0.005				0.05	0.20	0.005	44	22	18	bearings, heavy construction equipment, bushings
C90500	Tin Bronze	86.00-89.00 ¹	0.30	9.00-11.00	1.00-3.00	0.20	1.50	1.00	0.005				0.05	0.20	0.005	44	25	10	clamps, heavy construction equipment, nuts, connectors
C90700	Tin Bronze	88.00-90.00 ¹	0.50	10.00-12.00	0.50	0.15	1.50	0.50	0.005				0.05	0.20	0.005	40	25	10	restaurant equipment, gear boxes, bearings, gears
C91100	High Tin Bronze	82.00-85.00 ¹	0.25	15.00-17.00	0.25	0.25	1.00	0.50	0.005				0.05	0.20	0.005	35	25	2	piston rings, bearings
C92900	Leaded Nickel Tin Bronze	82.00-86.00 ¹	2.00-3.20	9.00-11.00	0.25	0.20	1.50	2.80-4.00	0.005				0.05	0.25	0.005	45	25	8	cams, gears, wear plates, pump bodies, worm gears
C93200*	Leaded Tin Bronze	81.00-85.00 ¹	6.00-8.00	6.30-7.50	2.00-4.00	0.20	1.50	1.00	0.005				0.08	0.35	0.005	35	20	10	machine parts, washers, pumps, bearings, fittings
C93700	High-Leaded Tin Bronze	78.00-82.00	8.00-11.00	9.00-11.00	0.80	0.70	1.50	0.50	0.005				0.08	0.50	0.005	35	20	6	brackets, nuts, bearings, corrosion resistant castings
C93800	High-Leaded Tin Bronze	75.00-79.00	13.00-16.00	6.30-7.50	0.80	0.15	1.50	1.00	0.005				0.08	0.80	0.005	25	16	5	bearings, pumps, machine parts, railroad applications
C94100	High-Leaded Tin Bronze	72.00-79.00	18.00-22.00	4.50-6.50	1.00	0.25	1.50	1.00	0.005				0.25 ⁴	0.80	0.005	25	17	7	thrust block
C94300	High-Leaded Tin Bronze	67.00-72.00	23.00-27.00	4.50-6.00	0.80	0.15	1.50	1.00	0.005				0.25 ⁴	0.80	0.005	21	15	7	soft metal applications, railroad applications
C95400*	Aluminum Bronze	83.00 min				3.00-5.00		1.50	10.00-11.50	0.50						85	32	12	weld guns, nuts, bushings, landing gear parts, valves
C95500*	Nickel-Aluminum Bronze	78.00 min				3.00-5.00		3.00-5.50	10.00-11.50	3.50						95	42	10	window hardware, landing gear parts, bushings, gears
C95510 ^{3,2}	Nickel-Aluminum Bronze	78.00 min		0.20	0.30	2.00-3.50		4.50-5.50	9.70-10.90	1.50						95 ⁵	56 ⁵	9	landing gear parts, bushings, hydraulic seal components
C95900*	Aluminum Bronze	Rem.				3.00-5.00		0.50	12.00-13.50	1.50									gears, worm drives

*standard-stocked alloy. ¹In determining Cu min, Cu may be calculated as Cu + Ni. ²AMS 4880. ³Ni value includes Co. ⁴For continuous castings, S shall be 0.25% max. ⁵Castings 4.0+.

^AChemical requirements for other elements: Bi% 1.70-2.70. Note: Unless otherwise noted, single values in Chemical Properties represent maximums.

Extruded and Drawn Products

Copper Alloy UNS No.	Material Description	Chemical Properties														Mechanical Properties [†]				Typical Uses
		Cu%	Pb%	Sn%	Zn%	Fe%	P%	Ni%	Al%	Co%	Mn%	Si%	Cb%	Mg%	Tensile ksi	Yield ksi	Elong. %	Std. Temper		
C14500 ^{3A}	Tellurium Copper	99.90 min					0.004-0.012									38	30	8	H02	fire protection, motor parts, forgings, plumbing fixtures
C31400*	Leaded Commercial Bronze	87.50-90.50	1.30-2.50		Rem.	0.10		0.70								50	30	7	H02	door knobs, electrical connectors, nuts, screws
C31600	Leaded Commercial Bronze ¹	87.50-90.50	1.30-2.50		Rem.	0.10		0.04-0.10	0.70-1.20							50	30	7	H02	hardware, screws, electrical connectors, fasteners, nuts
C51000*	Phosphor Bronze 5% A	Rem.	0.05	4.20-5.80	0.30	0.10		0.03-0.35								70		13	H04	bridge bearing plates, lock washers, springs, fasteners
C52100	Phosphor Bronze 8% C	Rem.	0.05	7.00-9.00	0.20	0.10		0.03-0.35								85		12	H04	bridge bearing plates, clips, cotter pins, marine parts
C53400	Phosphor Bronze B-1	Rem.	0.08-1.20	3.50-5.80	0.30	0.10		0.03-0.35								60		10	H04	bushings, bearings, fasteners
C54400*	Phosphor Bronze B-2	Rem.	3.00-4.00	3.50-4.50	1.50-4.50	0.10		0.01-0.50								60		10	H04	gears, electrical connectors, bearings, shafts, pinions
C63000 ^{3,2}	Nickel-Aluminum Bronze	Rem.		0.20	0.30	2.00-4.00		4.00-5.50	9.00-11.00		1.50	0.25				110	68	10	HR50	aircraft parts, bolts, nuts, ship propellers, faucets
C63020 ^{3B,3}	Nickel-Aluminum Bronze	Rem.	0.03	0.25	0.30	4.00-5.50		4.20-6.00	10.00-11.00	0.20	1.50	0.15				135	100	6	TQ50	bushings, bearings, wear plates, dies, valve balls
C64200 ^{4,4}	Aluminum Bronze	Rem. ⁵	0.05	0.20	0.50	0.30		0.25 ⁷	6.30-7.60		0.10	1.50-2.20				85	45	12	HR50	valve guides, nuts, pole line hardware, bolts, gears
C65100	Low-Silicon Bronze B	Rem.	0.05		1.50	0.80					0.70	0.80-2.00				65	35	8	H02	conduit, electric motors, bolts, nuts, marine hardware
C67300*	Manganese Bronze	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				65	40	12	H02	fasteners, bearings, pump parts, bushings, idler pins
C72900 ^{6,6}	Copper Nickel-Tin Bronze	Rem.	0.02	7.50-8.50	0.50	0.50		14.50-15.50 ⁷			0.30			0.10	0.15	Dependent on AMS. See spec sheets.			landing gear bushings and bearings, brakes, valves	

[†]standard-stocked alloy. [†]rod, 1/2" diameter and under (C14500, 1/4" diameter and under). ¹(nickel-bearing). ²AMS 4640. ³AMS 4590. ⁴AMS 4634. ⁵Cu value includes Ag. ⁶Available as AMS 4596, 4597, 4598. ⁷Ni value includes Co. ^AChemical requirements for other elements: Te% 0.40-0.70. ^BChemical requirements for other elements: Cr% 0.05, max. Note: Unless otherwise noted, single values in Chemical Properties represent maximums.



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