



■ 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
- (All above alloys are standard-stocked items)



■ Wrought Drawn Products

- C31400 Leaded Commercial Bronze
 - C51000 Phosphor Bronze
 - C54400 Phosphor Bronze
 - C63000 Nickel Aluminum Bronze
 - AMS 4590-C63020 Nickel Aluminum Bronze
 - C64200 Aluminum Bronze
 - C67300 Manganese Bronze
- (All above alloys are standard-stocked items)

Special Alloys Available Upon Request



Concast offers a complete line of stocked and custom-made products. When Concast customers request special alloys and special sizes, we respond with products designed to meet their exacting specifications.

P.O. Box 816 | Mars, PA 16046
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► All Concast plants are ISO 9001 certified

Cast Products

Copper Alloy UNS No.	Material Description	Chemical Properties												Mechanical Properties			Typical Uses
		Cu%	Sn%	Pb%	Zn%	Al%	Fe%	Ni%	Mn%	Si%	P%	Sb%	S%	Tensile	Yield	Elongation	
														ksi	ksi	%	
C83600	Leaded Red Brass	84.00-86.00	4.00-6.00	4.00-6.00	4.00-6.00	0.005	0.30	1.00		0.005	0.05	0.25	0.08	36	19	15	valves, pumps, plumbing and boat hardware, pipe fittings, terminal, ends for electric cables
C86300*	Manganese Bronze	60.00-66.00	0.20	0.20	22.0-28.0	5.00-7.50	2.00-4.00	1.00	2.50-5.00					110	62	14	heavy load bushings, gears, screwdown nuts, gibs, bridge parts
C86500	Manganese Bronze	55.00-60.00	1.00	0.40	36.00-42.00	0.50-1.50	0.40-2.00	1.00	0.10-1.50					70	25	25	struts, machinery parts, gears, propellers, brackets, weld guns, lever arms, hooks, frames
C89835* ¹	Bismuth Tin Bronze	85.00-89.00	6.00-7.50	0.05	2.00-4.00	0.005	0.20	1.00		0.005	0.10	0.35	0.08	30	14	6	faucets, pump components, pipe fittings, plumbing, goods, water pump impellers, housings, small gears
C90300*	Tin Bronze	86.00-89.00	7.50-9.00	0.30	3.00-5.00	0.005	0.20	1.00		0.005	0.05	0.20	0.05	44	22	18	gears, valve and pump components, marine fittings, piston rings, valves, valve bodies
C90500	Tin Bronze	86.00-89.00	9.00-11.00	0.30	1.00-3.00	0.005	0.20	1.00		0.005	0.30	0.20	0.05	44	25	10	bushings, piston rings, pump bodies, valves, worm gears, pump impellers, valve bodies, gears
C90700	Tin Bronze	88.00-90.00	10.00-12.00	0.50	0.50	0.005	0.15	0.50		0.005	0.30	0.20	0.05	40	25	10	worm gears, worm wheels, heavy load bearings, gear boxes, speed reducers, valve bodies
C91100	High Tin Bronze	82.00-85.00	15.00-17.00	0.25	0.25	0.005	0.25	0.50		0.005	1.00	0.20	0.05	35	25	2	hollow conductors, worm wheels, worm gears, conprise gears, heavy load/relatively low-speed bearings
C92900	Leaded Nickel Tin Bronze	82.00-86.00	9.00-11.00	2.00-3.20	0.25	0.005	0.20	2.80-4.00		0.005	0.50	0.25	0.05	45	25	8	cams, gears, wear plates, impellers for mine water, pump bodies, worm gears
C93200*	Leaded Tin Bronze	81.00-85.00	6.30-7.50	6.00-8.00	2.00-4.00	0.005	0.20	1.00		0.005	0.15	0.35	0.08	35	20	10	bearings, bushings, light duty gears and sprockets, impellers, wear strips, plates, fittings and washers
C93700	High-Leaded Tin Bronze	78.00-82.00	9.00-11.00	8.00-11.00	0.80	0.005	0.70	0.50		0.005	0.10	0.70	0.08	35	20	6	bearings, plates, machine parts, bushings, pumps, impellers, large bearings for ships
C93800	High-Leaded Tin Bronze	75.00-79.00	6.30-7.50	13.00-16.00	0.80	0.005	0.15	1.00		0.005	0.05	0.80	0.08	25	16	5	bearings, pumps, low friction bushings, journal bearings for rail cars, pump impellers and bodies for acid water
C94100	High-Leaded Tin Bronze	72.00-79.00	4.50-6.50	18.00-22.00	1.00	0.005	0.25	1.00		0.005	0.50	0.80	0.08	25	17	7	thrust block
C94300	High-Leaded Tin Bronze	67.00-72.00	4.50-6.00	23.00-27.00	0.80	0.005	0.15	1.00		0.005	0.08	0.80	0.08	21	15	7	high speed bearings for light to medium loads, soft metal applications, railroad applications
C95400*	Aluminum Bronze	83.00 min.				10.00-11.50	3.00-5.00	1.50	0.50					85	32	12	gears, worm wheels, bushings, bearings, wear strips, valve bodies, valve seats, valve guides
C95500*	Nickel Aluminum Bronze	78.00 min.				10.00-11.50	3.00-5.00	3.00-5.50	3.50					95	42	10	heavy duty bushings and bearings, gears, wear parts, pump parts, aircraft and military applications
AMS 4880-C95510*	Nickel Aluminum Bronze	78.00 min.	0.20	0.30		9.70-10.90	2.00-3.50	4.50-5.50	1.50					95 ¹	56 ¹	9	heavy duty bushings and bearings, gears, wear parts, pump parts, aircraft and military applications
C95900*	Aluminum Bronze	Rem.				12.00-13.50	3.00-5.00	0.50	1.50								landing gear bushings and bearings, bushings, hydraulic seal components, bearings requiring abrasion resistance

*standard-stocked alloys

¹Bi% 1.75-2.75

¹Castings 4.0+

Single values within the Chemical Properties, unless otherwise noted, represent maximums.

Wrought Products

Copper Alloy UNS No.	Material Description	Chemical Properties												Mechanical Properties (1/2" diameter and under rod)				Typical Uses
		Cu%	Sn%	Pb%	Zn%	Al%	Fe%	Ni%	Mn%	Si%	P%	As%	Co%	Tensile	Yield	Elongation	Std. Temper	
														ksi	ksi	%		
C31400*	Leaded Commercial Bronze	87.50-90.50		1.30-2.50	Rem.		0.10	0.70						50	30	7	H02	door knobs, connectors for wire and cable, nuts, screws, pickling crates, pickling fixtures, pickling racks, screw machine parts
C31600	Leaded Commercial Bronze (nickel-bearing)	87.50-90.50		1.30-2.50	Rem.		0.10	0.70-1.20			0.04-0.10			50	30	7	H02	hardware, connectors, fasteners, nuts, screws, screw machine parts
C51000*	Phosphor Bronze 5% A	Rem.	4.20-5.80	0.05	0.30		0.10				0.03-0.35			70		13	H04	electrical parts, fasteners, sleeve bushings, chemical hardware, clutch disks, welding rods
C52100	Phosphor Bronze 8% C	Rem.	7.00-9.00	0.05	0.20		0.10				0.03-0.35			85		12	H04	bridge bearing plates, thermostat bellows, coinage, cymbals, electronic connectors, fasteners, marine parts
C53400	Phosphor Bronze B-1	Rem.	3.50-5.80	0.08-1.20	0.30		0.10				0.03-0.35			60		10	H04	bushings, bearings, fasteners
C54400*	Phosphor Bronze B-2	Rem.	3.50-4.50	3.00-4.00	1.50-4.50		0.10				0.01-0.50			60		10	H04	electrical connectors, bushings, gears, pinions, valve parts, shafts
C63000*	Nickel Aluminum Bronze	Rem.	0.20	0.30		9.00-11.00	2.00-4.00	4.00-5.50	1.50	0.25				110	68	10	HR50	valve stems, guides and seats, bushings, gears, cams, ship propellers, propeller shafts, nuts
AMS 4590-C63020* ¹	Nickel Aluminum Bronze	Rem.	0.25	0.03	0.30	10.00-11.00	4.00-5.50	4.20-6.00	1.50	0.15			0.20	135	100	6	TQ50	valve stems, guides and seats, bushings, gears,
C64200*	Aluminum Bronze	Rem.	0.20	0.05	0.50	6.30-7.60	0.30	0.25	0.10	1.50-2.20		0.15		85	45	12	HR50	valve guides, valve bodies, valve stems, gears, cams, fasteners, marine hardware
C65100	Low-Silicon Bronze B	Rem.		0.05	1.50		0.80		0.70	0.80-2.00				65	35	8	H04	conduit, pole line hardware, bolts, nuts, screws, oil refinery plumbing tube, welding rod, hydraulic pressure lines
C67300*	Manganese Bronze	58.00-63.00	0.30	0.40-3.00	Rem.	0.25	0.50	0.25	2.00-3.50	0.50-1.50				65	40	12	H02	fasteners, bearings, bushings, drive shafts, gears/cams, idler pins, piston heads, propeller shafts, pump parts, spindles, wear plates, hardware, valve seats, connecting rods

*standard-stocked alloys

¹Cr% 0.05

Single values within the Chemical Properties represent maximums.



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