



Proven Integrity. Delivering Value.

### C630 Nickel-Aluminum Bronze Offers Excellent Resistance to Corrosion, Wear, Shock, and Abrasion

Concast today means value for the future. By selecting Concast Metal Products Co. as your supplier of **AMS 4640-C63000 Nickel-Aluminum Bronze**, you are creating immediate value for your business—value that you can pass on to your customers.

Concast will provide you the **AMS 4640-C63000** quality, service, and value you need to make your business a success.

**AMS 4640-C63000 Alloy**  
✓ **Standard-Stocked Product**



#### AMS 4640-C63000 Typical Uses

CATEGORY	PRODUCT
Industrial	aircraft parts, balls, bearings, bushings, cams, condenser tube for power stations and desalting units, corrosion resistant articles, gears, heat exchanger flanges, hydraulic bushings for earth moving equipment, plunger tips, pump parts, pump shafts, shafting, structural members, tanks, valve balls, valve guides, valve seats, welded piping systems
Marine	bolts, nuts, propellers, pump parts, ship propellers
Plumbing	faucets

- **Concast provides C630 alloy as a standard-stocked product.**

*Contact us today to find out how we can improve the reliability and profitability of your extruded or cast and drawn alloy supply chain.*



800.626.7071



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Concast Metal Products Co. is a manufacturer of specialty continuous-cast copper alloys. Concast has achieved a strong and stable market position through a sharp focus on evolving technologies, quality control, and a high level of customer service. Our inventory of over 1,100 standard sizes is the largest inventory of standard-stocked, continuous-cast alloys in North America.

■ Concast is ISO 9001 and AS9100 QMS certified.

# AMS 4640-C63000 Overview

## Chemical Composition

Cu% <sup>1</sup>	Sn%	Zn%	Fe%	Ni%	Al%	Mn%	Si%
Rem.	0.20	0.30	2.00-4.00	4.00-5.50	9.00-11.00	1.50	0.25

<sup>1</sup>Cu value includes Ag. Note: Single values represent maximums.

## Mechanical Properties

Tensile Strength, min		Yield Strength, at 0.5% Extension Under Load, min		Elongation, in 4D, min	Hardness
ksi	MPa	ksi	MPa	%	min to max HB
SIZE RANGE: UP TO 1" ROUNDS, HEXAGONS, AND OCTAGONS INCLUSIVE					
110	760	68	470	10	201-248
SIZE RANGE: OVER 1" TO 2" ROUNDS, HEXAGONS, AND OCTAGONS INCLUSIVE					
110	760	60	415	10	201-248
SIZE RANGE: OVER 2" TO 3" ROUNDS, HEXAGONS, AND OCTAGONS INCLUSIVE					
105	725	55	380	10	187-241
SIZE RANGE: OVER 3" TO 5" ROUNDS, HEXAGONS, AND OCTAGONS INCLUSIVE					
100	690	50	345	10	187-241

## 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
0.3750	0.030	0.362	1.5625	0.525	6.301	4.5000	4.391	52.689
0.4375	0.042	0.503	1.6250	0.559	6.708	4.7500	4.872	58.468
0.5000	0.054	0.652	1.7500	0.656	7.867	5.0000	5.350	64.196
0.5625	0.068	0.810	1.8750	0.756	9.073	5.2500	5.930	71.158
0.6250	0.082	0.989	2.0000	0.846	10.152	5.5000	6.479	77.739
0.6875	0.102	1.222	2.0625	0.898	10.770	5.7500	7.059	84.700
0.7500	0.119	1.431	2.1250	0.949	11.388	6.0000	7.800	93.600
0.8125	0.141	1.702	2.2500	1.077	12.923	6.5000	9.091	109.091
0.8750	0.238	2.853	2.3750	1.189	14.262	6.7500	9.800	117.600
0.9375	0.189	2.240	2.5000	1.319	15.824	7.0000	10.491	125.895
1.0000	0.213	2.561	2.6250	1.454	17.443	7.5000	12.099	145.186
1.0625	0.240	2.875	2.7500	1.592	19.108	8.0000	13.557	162.679
1.1250	0.267	3.205	3.0000	1.977	23.727	8.5000	15.410	184.920
1.1875	0.297	3.561	3.2500	2.393	28.717	9.0000	17.422	209.075
1.2500	0.334	4.008	3.5000	2.658	31.895	9.5000	19.028	228.336
1.3750	0.399	4.791	3.7500	3.052	36.632	10.0000	21.267	255.200
1.4375	0.444	5.334	4.0000	3.485	41.820			
1.5000	0.480	5.760	4.2500	3.879	46.542			

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