

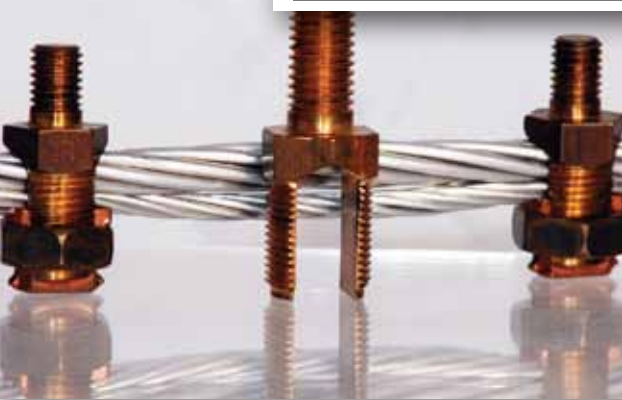


# C31400

# LEADED COMMERCIAL BRONZE

[WWW.NBMMETALS.COM](http://WWW.NBMMETALS.COM)

LEADING MANUFACTURER & MASTER DISTRIBUTOR OF BRASS, BRONZE, & COPPER ALLOYS



**Offered in solid & hex bars.**

Leaded Commercial Bronze C31400 combines the natural corrosion resistance of C22000 with the machinability typical of leaded brasses. It is an alpha brass nominally composed of 89% copper and 9% zinc, but it also contains approximately 2% lead to impart free-cutting characteristics. The relatively low zinc content provides excellent corrosion resistance in potable water along with a pleasing golden color that matches C22000 hardware.

## Sizes Available From NBM

SOLID BAR . . . . . 3/16" - 3 1/2" diameter  
 HEX BAR . . . . . 3/8" - 2" across the flats

## Spec Equivalents

ASTM B-140  
 MIL-V-18436

## Chemical Composition

	Cu	Fe	Pb	Ni	Zn
min/max	87.5 90.5	.10	1.3 - 2.5	.7	Rem.
nominal	89.0	-	1.9	-	9.1

Note: Cu + Sum of Named Elements, 99.5% min.

## Typical Uses

### Builders Hardware

Door Knobs and Handles, Push/Pull Bars

### Electrical

Connectors for Wire and Cable, Electrical Plug Type Connectors

### Fasteners

Screws, Nuts

### Other Industrial

Pickling Fixtures, Pickling Racks, Pickling Crates, Screw Machine Parts, Plumbing Components, Dezincification Applications

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[www.nbmmetals.com](http://www.nbmmetals.com)



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### Room Temp Tensile & Hardness Data

TEMPER	SECTION SIZE (INCHES)	TENSILE (KSI) MIN	YIELD (KSI) MIN	ELONGATION IN HD MIN
060 (Ann.)	All Sizes	35	10	25%
H02 (1/2 H)	Under 1/2"	50	30	7%
	1/2" - 1"	45	27	10%
	Over 1"	40	25	12%

### Physical Properties

- Melting Point - Liquidus . . . . . 1920 F
- Melting Point - Solidus . . . . . 1850 F
- Density . . . . . 0.319 lb/in<sup>3</sup> at 68 F
- Specific Gravity . . . . . 8.83
- Electrical Resistivity . . . . . 24.7 ohms-cmil/ft @ 68 F
- Electrical Conductivity . . . . . 42 %IACS @ 68 F
- Thermal Conductivity . . . . . 104.0 Btu · ft/(hr · ft<sup>2</sup>·°F)at 68F
- Coefficient of Thermal Expansion . . . . . 10.2 ·10<sup>-6</sup> per °F (68-572 F)
- Specific Heat Capacity . . . . . 0.09 Btu/lb/°F at 68 F
- Modulus of Elasticity in Tension . . . . . 17000 ksi
- Modulus of Rigidity . . . . . 6400 ksi
- Machinability Rating . . . . . 80

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