



LEADED COMMERCIAL BRONZE

EQUIVALENT SPECIFICATIONS

SPECIFICATIONS	DESIGNATION
ISO	CuNi30Mn1Fe
European	CuNi30Mn1Fe
BS	CN 107
JIS	C 7150
Russian	MNZMo30-1-1

Leaded Commercial Bronze C31400 combines the natural corrosion resistance of C22000 with the machinability typical of leaded brasses. Like C22000, 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 of C31400 provides excellent corrosion resistance in potable water along with a pleasing golden color that matches C22000 hardware. Alloy C31400 is also suitable for outdoor use due to its resistance to stress corrosion cracking and to corrosion in general, but where the highest strength is not required.

TYPICAL USES :

BUILDERS HARDWARE: Door Knobs **ELECTRICAL:** Connectors for Wire and Cable, Electrical Plug Type Connectors
FASTENERS: Screws, Nuts **INDUSTRIAL:** Pickling Fixtures, Pickling Racks, Pickling Crates, Screw Machine Parts

CHEMICAL COMPOSITION

	Cu	Fe	Pb	Ni	Zn
Min/Max	87.5 - 90.5	0.1	1.3 - 2.5	0.7	Rem
Nominals	89.0000	-	1.9000	-	9.1000

PHYSICAL PROPERTIES

Product Property	US Customary
Coefficient of Thermal Expansion	10.2 • 10 ⁻⁶ per oF (68-572 F)
Density	0.319 lb/in ³ @ 68 F
Electrical Conductivity	42 %IACS @ 68 F
Electrical Resistivity	24.7 ohms-cmil/ft @ 68 F
Melting Point Liquid US	1900 F
Melting Point Solid US	1850 F
Modulus of Elasticity in Tension	17000 ksi
Modulus of Rigidity	6400 ksi
Specific Gravity	8.83
Specific Heat Capacity	0.09 Btu/lb/°F @ 68 F
Thermal Conductivity	104.0 Btu • ft/(hr • ft ² • °F) @ 68 F

SIZES AVAILABLE :

HOLLOW RODS	Min Bore Size 20 mm and Max OD 100 mm
ROUND RODS/BARS	6mm To 130 mm
HEX	5mm To 60mm
SQUARE	4mm To 60mm
FLAT	5mm Min Thickness and max Width 120mm
PROFILES / SECTIONS	S per Customer Drawing
BILLETS	Up to 200 mm
INGOTS	AS per Specification

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