NWB®

High Performance Bearing Technology

C95400 ALUMINUM BRONZE - 9C



C95400 is a cast aluminum bronze with high strength properties, and excellent resistance to wear and corrosion. Although this alloy is supplied in the cast condition, it can be heat treated to enhance its mechanical properties and comply to more demanding applications.

Alternative Specifications

Continuous	**Centrifugal**
ASTM B-505	ASTM B-271
AMS 4871, 4873	ASME SB-271
SAE J461, J462	SAE J462, J46

Physical Properties

Melting Point - Liquidus	1900 F
Melting Point - Solidus	1880 F
Density	0.269 lb/in^3 at 68 F
Specific Gravity	7.45
Electrical Resistivity	80.2 ohms-cmil/ft at 68 F
Electrical Conductivity	13% IACS at 68 F
Thermal Conductivity	33.9 Btu · ft/(hr · ft2·°F) at 68F
Coefficient of Thermal Expansion	9.0 ·10^{-6} per °F (68-572 F)
Specific Heat Capacity	0.1 Btu/lb/°F at 68 F
Modulus of Elasticity in Tension	15500 ksi
Machinability Rating	60%

Room Temp Tensile & Hardness Data

CASTING PROCESS	TEMPER	TENSILE (KSI) MIN	YIELD (KSI) MIN	ELONGATION IN HD MIN	BRINELL (3000 KG)
CENTRIFUGAL	AS CAST	75	30	12	150
	HEAT TREATED	90	45	6	190
CONTINUOUS	AS CAST	85	32	12	170
	HEAT TREATED	95	45	10	220

Typical Uses

Oil & Gas
Bearing Surfaces, Wear Plates, Guides, Pipe Welding Back-up Shoes

Automotive
Weld Guns, Guide Post Bushings, Stamping Dies

Fasteners
Large Hold Down Screws, Nuts

Other Industrial
Valve Seats, Pressure Blocks, Bearing Segments, Valves, Bushings, Machine Parts, Valve Bodies, Bearings, Worm Gears, Landing Gear Parts, Pump Parts, Heavily Loaded Worm Gears, Spur Gears, High Strength Clamps, Gears, Valve Guides, Pickling Hooks

Marine
Ship Building, Covers for Marine Hardware

Chemical Composition

	Cu	Al	Fe	Mn	Ni(1)
min/max	83.0 min	10.0-11.5	3.0-5.0	.50	1.5
nominal	83.2	10.8	4.0	-	-

(1) Ni value includes Co.
NOTE: Cu +(sum of named elements) = 99.5% min.

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