

CDA 510

COPPER ALLOY

PHOSPHOR BRONZE

Phosphor bronze alloys were of great significance in the Bronze Age. The addition of phosphor in bronze alloys increase wear resistance, fatigue resistance and hardness, thus allowing the usage of the phosphor bronze alloys in shafts, fasteners, valve spindles, masonry fixings, bearings, springs and gears. UNS C52100 phosphor bronze copper alloy has good spring qualities, ductility and strength.

Chemical Properties

Cu	Fe	P	Sn	Pb	Zn
90.5-92.8	0.1 max	0.03-0.35	7.0-9.0	0.05 max	0.2 max

Mechanical Properties

Yield strength	Tensile strength	Elongation
Min 0.2% PSI	Min PSI	Min %
165-552	379-965	70

Physical Properties

Density	Elastic Modulus	Mean Coefficient of Thermal	Thermal Conductivity	Specific Heat	Melting Point
(Kg/m ³)	(Gpa)	Expansion(µm/m/°C)	(W/m.K)	0-100°C	(nΩ.m)
8.8	117	18.2	62	377	880-1025

Heat Treatment

The annealing temperature of B16/360 Brass is 800°-110°OF

Equivalent Designation

UNS C52100
En Name CW453K

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