

Brass Ms58 / 2.0401 / CuZn39Pb3

Alternative Designations

CuZn39Pb3 (DIN) | EN 12164 (EN) | C38500 (ASTM) | C38500 (UNS) | C3603 (JIS) | 385 (CDA)

Key Features

Excellent hot formability • Good free-cutting • Excellent machinability

Description

It is an alloy of copper and zinc, and is known for its strength and durability. Brass Ms58 is often used in the production of plumbing fixtures, door hardware, and musical instruments. This material has excellent hot formability and can easily be soldered or brazed. It is also suitable for use in the sanitary industry, engine and vehicle construction and swivel parts. It has very good free-cutting. It offers a number of advantages over other materials, such as its ability to resist corrosion and its low cost.

Mechanical Properties

Yield strength	220 – 350 MPa
Tensile strength	360 – 500 MPa
Elongation at break	3 – 20%
Hardness	90 – 160
Module of elasticity	96 GPa

Physical Properties

Density	8.46 g/cm ³
Electrical conductivity	14.56 m/Ω · mm ²
Coefficient of thermal expansion	21.4 K ⁻¹ · 10 ⁻⁶
Thermal conductivity	113 W/m · K
Specific heat capacity	0.38 J/kg · K

Chemical Composition

Al	0.05%	N	-
Bi	-	Nb	-
C	-	Ni	0.2 – 0.3%
Cd	-	O	-
Co	-	P	-
Cr	-	Pb	3%
Cu	58%	S	-
Fe	0.2%	Si	-
H	-	Sn	0.2%
Mg	-	Ti	-
Mn	-	V	-
Mo	-	Zn	Rest is Zn

Reference

Datasheets provided by Xometry contain materials sourced through trusted OEMs, material distributors, and databases. Please visit Materialdatacenter.com for further information on this material.