Xometry

Datasheet

H96

Description

H96 is a high-copper brass with a copper content of approximately 96% and zinc around 4%.

Characteristics: Excellent electrical and thermal conductivity, very high plasticity, reddish color, and relatively low strength. It is commonly used for conductive and thermal components, decorative applications, and deep-drawn parts.

Features

Excellent electrical and thermal conductivity, close to pure copper and far superior to common brasses like H62 and H59, combined with high plasticity in both cold and hot working conditions, making it ideal for stamping, drawing, deep drawing, and bending. It has an attractive appearance, with a golden-reddish color and good luster after polishing, making it suitable for decorative applications. It has good corrosion resistance, remaining stable in atmospheric and fresh water environments, with low susceptibility to dezincification. It has relatively low strength and is not suitable for structural components subjected to high loads. It offers excellent weldability and brazing performance.

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Parameters

H96's Chemical Composition (%)

Composition	Fe	Cu	Pb	More
Min.	-	95	-	Zn: Balance
Max.	0.1	97	0.03	

The sum of Cu and the listed elements is 99.8%.

Physical Properties

Density:8.85 g/cm^3

Melting point: 1030~1055°C

Thermal conductivity: ≈330 W/(m.K)

Coefficient of linear expansion: 16.8x10-6°C

Resistivity: 0.021 μΩ•m

Electrical conductivity: ≈80% IACS

Elastic modulus E: 110 GPa

Mechanical Properties (Common Condition)

1. Soft condition (annealed, M condition)

Tensile strength: ≥230 MPa

Elongation at break: ≥45%

Hardness HB: ≈55

2. Hard temper (cold worked Y temper)

Tensile strength: ≥360 MPa

Elongation at break: ≥5%

Hardness HB: ≈110