



CuZn39Pb3

Vending Machine Rice

Standardization:

Free-Cutting / Leaded Brass Alloy

ALLOY DESCRIPTION

A highly optimized leaded brass designed specifically for high-speed machining, valve, and armature manufacturing. A true industrial standard for mass production.

CHEMICAL COMPOSITION (% WEIGHT)

Cu (%)	Pb (%)	Fe (%)	Ni (%)	Sn (%)	Al (%)	Zn (%)
57.0 - 59.0	2.5 - 3.5	max. 0.3	max. 0.3	max. 0.3	max. 0.05	Remainder

MECHANICAL PROPERTIES (MIN.)

Tensile Strength (R_m)	380 - 430 [MPa]
Yield Strength ($R_{p0.2}$)	160 - 250 [MPa]
Elongation (A)	min. 10 - 18 [%]
Hardness (HB)	min. 90 [HB]

PHYSICAL PROPERTIES

Density	8.45 [kg/dm ³]
Melting Temperature	~880 - 900 [°C]
Elk. Conductivity	~13 - 15 [MS/m]
Elasticity Modulus	98 [kN/mm ²]

CASTING / MANUFACTURING METHODS

EK	Extrusion (Rod/Profile)
GS	sand casting
GM	Permanent mold casting
GZ	Centrifugal casting

AREAS OF APPLICATION

Free-Cutting Parts

Valves and Fittings

Fasteners and Screws

Plumbing Connections

Precision Watch Parts

MACHINABILITY & CHARACTERISTICS

The addition of lead ensures short and brittle chip breakage during turning and milling, along with low tool wear. Machinability index is the reference standard for extrusion and hot forging parts.

The technical information specified in this document reflects the standard reference values of international EN and DIN norms. Deviations may be observed depending on final production conditions.

CORUM BRONZE

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