



CuSn5Pb9-C

High Lead Tin Bronze

Brand Name

KUPTIN PB9

Standardization:

DIN EN 1982 / CC494K / C93500

ALLOY DESCRIPTION

CuSn5Pb9-C is a special casting alloy that offers superior sliding performance, low friction coefficient and self-lubricating feature thanks to its high lead content. It ensures safe operation by protecting the shaft surface in systems where lubrication is insufficient or intermittent. This alloy, which also has good resistance to corrosion and sea water, is a reliable engineering material that is widely preferred in bushing and plain bearing applications.

CHEMICAL COMPOSITION (% WEIGHT)

Cu (%)	Sn (%)	Pb (%)	Zn (%)	Ni (%)	P (%)
Remainder	4.0-6.0	8.0-11.0	max. 2.0	max. 2.0	max. 0.10

MECHANICAL PROPERTIES (MIN.)

Tensile Strength (R_m)	160 - 200 [N/mm²]
Yield Strength ($R_{p0.2}$)	80 - 100 [N/mm²]
Elongation (A_5)	min. 6 - 12 [%]
Hardness (HBW)	55 - 60 [HB]

PHYSICAL PROPERTIES

Density	8.87 [kg/dm³]
Melting Temperature	800 - 950 [°C]
Elk. Conductivity	~6 [MS/m]
Elasticity Modulus	80 [kN/mm²]

CASTING METHODS

GS	sand casting
GM	Permanent mold casting
GZ	Centrifugal casting
GC	continuous casting

AREAS OF APPLICATION

Bushing and Plain Bearing Systems

Pump and Valve Components

Machine Bearings

Gear and Mechanical Parts

Low Speed / High Load Applications

MACHINABILITY & CHARACTERISTICS

The high lead content gives the alloy self-lubricating properties; In this way, friction is reduced and the shaft surface is protected. It facilitates machinability by creating short and brittle chips in machining. It offers long-lasting performance in sliding surface applications in the machinery manufacturing, automotive, energy, marine and oil & gas industries.

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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