Çorum Bronz

TECHNICAL DATA SHEET

Technical Data Sheet

CuSn11Pb2-C

Leaded Tin Bronze

Brand Name

KUPTİN PB

Standardization:

DIN EN 1982 / CC482K / C90800 / C92500

ALLOY DESCRIPTION

CuSn12Pb-C is a special casting alloy obtained by adding lead to a high tin content bronze, offering excellent machinability and low friction coefficient properties. Lead content increases the lubricity of the alloy, allowing it to operate safely even in oil-free or insufficiently lubricated conditions. This feature makes it particularly ideal for sliding bearings with high specific loads and low sliding speeds.

CHEMICAL COMPOSITION (% WEIGHT)

Cu (%)	Sn (%)	Pb (%)	P (%)	Ni (%)	Zn (%)
85.0-88.0	10.0-12.0	1.5-2.5	max. 0.4	max. 2.0	max. 0.5

MECHANICAL PROPERTIES (MIN.)

Tensile Strength (R_m)	**260 - 290 [N/mm²]**
Yield Strength ($R_{p0.2}$)	**130 - 160 [N/mm²]**
Elongation (A_5)	**min. 5 - 8 [%]**
Hardness (HBW)	**min. 80 - 90 [HB]**

PHYSICAL PROPERTIES

Density	**8.80 [kg/dm³]**
Melting Temperature	**830 – 990 [°C]**
Elk. Conductivity	**5 - 6 [MS/m]**
Elasticity Modulus	**90 [kN/mm²]**

CASTING METHODS

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

AREAS OF APPLICATION

- Oil-Free Plain Bearings
- Low Speed Heavy Duty Bushings
- Hydraulic Cylinder Bearings
- Worm Screw Nuts
- Pressure Plates

MACHINABILITY & CHARACTERISTICS

Lead additive gives the alloy self-lubricating properties; In this way, it protects the shaft surface even under insufficient lubrication conditions. It increases the surface quality by providing brittle and short chip formation in machining. Since it maintains the same high tin content as CuSn12, wear resistance also remains at a high level.

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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