CuSn10Pb10-C

High Lead Tin Bronze

Brand Name
KUPTİN PB10

Standardization:
DIN EN 1982 / CC496K / C93700 / C90500

ALLOY DESCRIPTION

CuSn10Pb10-C is the strongest heavy-duty alloy of the KUPTİN PB series, which combines high tin and lead content. While it offers excellent sliding performance and self-lubricating properties thanks to its high lead content, its increased tin content provides higher mechanical strength and wear resistance. It is designed for heavy-duty bearing applications where lubrication is difficult, high friction is experienced and exposed to vibration-impact loads.

CHEMICAL COMPOSITION (% WEIGHT)

Cu (%)	Sn (%)	Pb (%)	Zn (%)	Ni (%)	P (%)
Remainder	9.0-11.0	8.0-11.0	max. 2.0	max. 2.0	max. 0.10

MECHANICAL PROPERTIES (MIN.)

Tensile Strength (R_m)	**180 - 200 [N/mm²]**
Yield Strength ($R_{p0.2}$)	**80 - 110 [N/mm²]**
Elongation (A_5)	**min. 5 - 10 [%]**
Hardness (HBW)	**60 - 70 [HB]**

PHYSICAL PROPERTIES

Density	**8.87 [kg/dm³]**
Melting Temperature	**820 – 970 [°C]**
Elk. Conductivity	**~ 5.5 [MS/m]**
Elasticity Modulus	**83 [kN/mm²]**

CASTING METHODS

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

AREAS OF APPLICATION

- Heavy Duty Plain Bearings
- High Pressure Bearings and Bushings
- Pump and Valve Components
- Machine Bearings and Gear Systems
- Vibration and Shock Absorbing Parts

MACHINABILITY & CHARACTERISTICS

KUPTİN offers higher mechanical strength and wear resistance thanks to its increased tin content compared to PB9. High lead content minimizes friction; It extends system life by providing stable performance under vibration and impact. It is safely preferred in the harshest working conditions of the machinery manufacturing, automotive, energy, maritime and oil & gas sectors.

CORUM BRONZE

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