



CuSn5

Tin Bronze Alloy

Standardization:

Tin Bronze / Phosphor Bronze

ALLOY DESCRIPTION

A hard-surfaced Tin Bronze alloy with high tin content, showing superior resistance to deformation under heavy loads.

CHEMICAL COMPOSITION (% WEIGHT)

Fe (%)	Ni (%)	P (%)	Pb (%)	Zn (%)	Sn (%)
max 0.1	max 0.2	0.01 - 0.4	max 0.02	max 0.2	4.5 - 5.5

MECHANICAL PROPERTIES (MIN.)

Elongation (A)	55
Hardness (HB)	75 - 105

PHYSICAL PROPERTIES

Density	8.80 [kg/dm³]
Melting Temperature	~830 - 990 [°C]
Elk. Conductivity	~6 - 8 [MS/m]
Elasticity Modulus	100 [kN/mm²]

CASTING / MANUFACTURING METHODS

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

AREAS OF APPLICATION

Worm Gears

Heavy Load Bushes

Nuts and Screws

Piston Skirts

Wear Shoes

MACHINABILITY & CHARACTERISTICS

Perfectly withstands high surface pressures. A classic choice for heavy-working worm gears and bearing applications where the load/speed combination is demanding. Corrosion resistance and machinability are well-balanced.

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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