Material Data Sheet

BÖGRA
Kompetenz in Bronze

BÖGRA - PSN3

CuSn11Pb2-C

Chemical Composition [wt%]	
Cu	remainder
Sn	11,5
Pb	1,6
Zn	<2,0
Ni	<2,0

Material Designation

Bögra: **PSN3** according to Production Specification BT-PSN3-221

DIN: Complies with CuSn11Pb2-C according to DIN EN 1982:2008

Material-No.

CC482K (2.1061) according to DIN 1705

Supplied as

- Machined Slide Bearings
- Semi-finished products: rods, tubes, profiles, flat bars

Applications

This material has given excellent service in **highly stressed bearings in machine tools, for wearing washers, end-stop washers and connecting rod bushes up to the largest diameters in heavy duty combustion engines**, especially two-stroke diesels, where the peculiarity of the loading (without a change in load) is particularly demanding. Can be used for crank and toggle bearings with peak loads up to p = 600 bar. The opposing material should be as hard and cleanly ground as possible or, for the most demanding conditions, finely ground and lapped. Nodular graphite cast iron is also a suitable shaft or carrier material.

Used for **heavy-duty bearings such as main spindle bearings of machine tools and bearings in presses and gearboxes**. This material is especially suitable for **guide rails, slides and slide blocks** not subjected to excessive shock load.

Physical properties (standard values)		
Condition		GC
Density	ρ [kg/dm³]	8,7
Coefficient of thermal expansion	α [*10^{-6}/K]	17,2
Electrical conductivity	κ [MS/m]	6,2
Modulus of elasticity	E [kN/mm²]	95

Mechanical properties (standard values)		
Condition		GC
Brinell Hardness	HBW	Min.90
0,2% - proofstress	$R_{p0,2}$ [N/mm²]	Min. 150
Tensile strength	R_m [N/mm²]	Min. 280
Elongation	A [%]	5
Compressive strength	R_d [N/mm²]	Min. 150
Max. loading pressure	$p_{zul.}$ [N/mm²]	Max. 80