

Material Data Sheet



BÖGRA - Rg7

CuSn7Zn4Pb7-C

Chemical Composition [wt%]	
Cu	remainder
Sn	6,6
Pb	6,5
Zn	3,5
Ni	<2,0

Material Designation

Bögra: **Rg7** according to Production Specification BT-Rg7-130
 DIN: Complies with CuSn7Zn4Pb7-C according to DIN EN 1982:2008

Material-No.

CC493K (2.1090) according to DIN 1705

Supplied as

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

Applications

This material has proved its value in sliding bearings and withstands moderate bearing pressures very well with adequate lubrication. This material has been used in **machine-building and crane- construction** for many years. It has also proved excellent in **cylinder insert bushings, end and stop bushings and highly stressed adjustment-gibs. Gearbox, rocker, and steering bushes, small end bushings in petrol engines and all bearings stressed above the normal**, especially in the engineering industry, can be manufactured economically from this material.

The unique composition results in good wear and running properties, as well as good relief of end pressures and excessive stresses from inadequate or occasional interruptions of lubrication. The surface finish and hardness requirements for the opposing material are not so great as with high-tin bronzes. With good lubrication, unhardened shafts can be used. The alloy has good sliding and emergency running properties.

Physical properties (standard values)		
Condition		GC
Density	ρ [kg/dm ³]	8,9
Coefficient of thermal expansion	α [$\cdot 10^{-6}/K$]	18,3
Electrical conductivity	κ [MS/m]	8
Modulus of elasticity	E [kN/mm ²]	101

Mechanical properties (standard values)		
Condition		GC
Brinell Hardness	HBW	Min.70
0,2% - proofstress	R _{p0,2} [N/mm ²]	Min. 120
Tensile strength	R _m [N/mm ²]	Min. 260
Elongation	A [%]	12
Compressive strength	R _d [N/mm ²]	Min. 120
Max. loading pressure	p _{zul.} [N/mm ²]	Max. 60

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