Material Data Sheet

BÖGRA – Rg7

CuSn7Zn4Pb7-C

Chemical Composition [wt%]	
Cu	remainder
Sn	6,6
Pb	6,5
Zn	3,5
Ni	<2,0
P	<0,1

Material Designation

Bögra: **Rg7** according to Production-Specification BT-Rg7-130

DIN: Complies with CuSn7Zn4Pb7-C according to DIN EN 1982:2017

Material-No.

CC493K (formerly 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	GM
Density	ρ [kg/dm³]	8,9	
Coefficient of thermal expansion	α [*10^{-6}/K]	18,3	
Electrical conductivity	κ [MS/m]	7,5	
Modulus of elasticity	E [kN/mm²]	101	

Mechanical properties (standard values)			
Condition		GC	GM
Brinell Hardness	HBW	Min. 70	
0,2% - proofstress	$Rp_{0,2}$ [N/mm²]	Min. 120	
Tensile strength	R_m [N/mm²]	Min. 260	
Elongation	A [%]	12	
Compressive strength	R_d [N/mm²]	Min. 120	
Max. loading pressure	$p_{zul.}$ [N/mm²]	Max. 60	