

Material Data Sheet



BÖGRA - PS43

CuZn36Pb4Sn3Ni2-C

Chemical Composition [wt%]	
Cu	remainder
Zn	36,5
Pb	4,0
Sn	3,3
Ni	1,8

Material Designation

Bögra: **PS43** according to Production-Specification BT-PS43-555

DIN: not standardized

Material-No.

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Supplied as

- Machined Slide Bearings
- Gravity Die-Castings

Applications

The composition of this material makes it suitable for use as in bearings that, because of high oil temperatures, are subject to corrosion. As has been shown in high temperature tests up to 180 °C, BÖGRA PS43 is one of the few copper alloys that are not attacked and, even with a micro-probe, no sulphide corrosion products were found. This makes it especially suitable for use in **small-end bushings for gasoline- and diesel engines**, whether with pressure, jet or splash lubrication. In addition, this material is suitable for **all gearbox and vehicle bearings subject to medium or high surface pressure**. The lead content absorbs the edge pressures that can arise from shaft bowing very well. As opposing material, hardened shafts should be used, which lead to very low wear.

Physical properties (standard values)			
Condition		GC	GM
Density	ρ [kg/dm ³]		8,4
Coefficient of thermal expansion	α [*10 ⁻⁶ /K]		18
Electrical conductivity	κ [MS/m]		9
Modulus of elasticity	E [kN/mm ²]		110

Mechanical properties (standard values)			
Condition		GC	GM
Brinell Hardness	HBW		Min. 125
0,2% - proofstress	R_{p0,2} [N/mm ²]		Min. 200
Tensile strength	R_m [N/mm ²]		Min. 350
Elongation	A [%]		3
Compressive strength	R_d [N/mm ²]		-
Max. loading pressure	p_{zul.} [N/mm ²]		Max. 100

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