

Material Data Sheet



BÖGRA - PSN108

CuSn10Ni8Zn3-C



Chemical Composition [wt%]	
Cu	remainder
Sn	10,0
Ni	8,0
Zn	3,0

Material Designation

Bögra: **PSN108** according to Production-Specification BT-PSN108-124 lead free
 DIN: not standardized

Material-No.

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Supplied as

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

Applications

PSN108 is produced by both continuous and gravity die casting and then machined into journal bearings. It is a lead-free alloy with excellent dynamic properties and an extremely high hardness as well as an outstanding wear resistance at the same time.

PSN108 is mainly used in the automotive and construction-machinery industries and is particularly suitable for oil lubricated bearings which are subject to high, short-term, shock loading, such as **small-end con-rod bushings**.

Physical properties (standard values)			
Condition		GC	GC (heat-treated)
Density	ρ [kg/dm ³]	8,9	8,9
Coefficient of thermal expansion	α [*10 ⁻⁶ /K]	18	18
Electrical conductivity	κ [MS/m]	5,2	8
Modulus of elasticity	E [kN/mm ²]	135	141

Mechanical properties (standard values)			
Condition		GC	GC (heat-treated)
Brinell Hardness	HBW	Min. 120	Min. 240
0,2% - proofstress	R _{p0,2} [N/mm ²]	Min. 230	Min. 640
Tensile strength	R _m [N/mm ²]	Min. 370	Min. 650
Elongation	A [%]	6	1
Compressive strength	R _d [N/mm ²]	-	1220
Max. loading pressure	p _{zul.} [N/mm ²]	-	Max. 200

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