# Material Data Sheet

## BÖGRA – PS138

*CuSn7Pb15-C*

| Chemical Composition [wt%] | |
|---|---|
| Cu | remainder |
| Sn | 7,0 |
| Pb | 15,0 |
| Ni | 1,3 |
| Zn | <2,0 |
| P | <0,1 |

**Material Designation**

Bögra: **PS138** according to Production-Specification BT-PS138-530

DIN: Complies with CuSn7Pb15-C according to DIN EN 1982:2017

**Material-No.**

CC496K (formerly 2.1182 according to DIN 1716)

**Supplied as**

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

**Applications**

The composition of this material makes it suitable for use as **universal bearing material in machine tools and special machines**. With its good emergency running properties, it has done good service where lubrication cannot always be guaranteed. The material is largely insensitive to shaft bowing, which, in extreme cases, can lead to high edge pressures. Any impurities that might be carried in the lubricant become safely embedded.
Both hardened and unhardened shafts can be used as opposing material. Used for **centrifugal and underwater pumps, for tobacco and textile machines, food processing and milling machines.**

| Physical properties (standard values) | | | |
|---|---|---|---|
| Condition | | GC | GM |
| Density | ρ [kg/dm³] | 9,1 | |
| Coefficient of thermal expansion | α [*10$^{-6}$/K] | 18,8 | |
| Electrical conductivity | κ [MS/m] | 7 | |
| Modulus of elasticity | E [kN/mm²] | 75 | |

| Mechanical properties (standard values) | | | |
|---|---|---|---|
| Condition | | GC | GM |
| Brinell Hardness | HBW | Min. 65 | |
| 0,2% - proofstress | $Rp_{0,2}$ [N/mm²] | Min. 90 | |
| Tensile strength | $R_m$ [N/mm²] | Min. 200 | |
| Elongation | A [%] | 8 | |
| Compressive strength | $R_d$ [N/mm²] | - | |
| Max. loading pressure | $p_{zul.}$ [N/mm²] | Max. 40 | |