Material Data Sheet



BÖGRA - PSN3S

CuSn12-C

| Chemical Composition [wt%] | | |
|----------------------------|-----------|--|
| Cu | remainder | |
| Sn | 12,0 | |
| Ni | <2,0 | |
| Pb | <0,7 | |
| Р | <0,6 | |

Material Designation

Bögra: PSN3S according to Production-

Specification BT-PSN3S-220

DIN: Complies with CuSn12-C

according to DIN EN 1982:2017

Material-No.

CC483K (formerly 2.1052 according to DIN 1705)

Supplied as

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

Applications

This material has good wear resistance and is resistant to corrosion and seawater. Ring-shaped and tubular constructional parts and elongated profiles, e.g. worm-gears, cylinder inserts, highly loaded placing and sliding bars.

| Physical properties (standard values) | | | | | |
|---------------------------------------|--------------------------|------|------|--|--|
| Condition | | GC | GM | | |
| Density | ρ [kg/dm³] | 8,6 | 8,6 | | |
| Coefficient of thermal expansion | α [*10 ⁻⁶ /K] | 18,1 | 18,1 | | |
| Electrical conductivity | κ [MS/m] | 6,2 | 6,2 | | |
| Modulus of elasticity | E [kN/mm²] | 97 | 97 | | |

| Mechanical properties (standard values) | | | | | |
|---|---|----------|----------|--|--|
| Condition | | GC | GM | | |
| Brinell Hardness | HBW | Min. 90 | Min. 80 | | |
| 0,2% - proofstress | Rp _{0,2} [N/mm ²] | Min. 150 | Min. 150 | | |
| Tensile strength | $R_m [N/mm^2]$ | Min. 300 | Min. 270 | | |
| Elongation | A [%] | 6 | 5 | | |
| Compressive strength | R _d [N/mm ²] | Min. 150 | Min. 150 | | |
| Max. loading pressure | p _{zul.} [N/mm²] | Min. 75 | Min. 75 | | |

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