

# Material Data Sheet



## BÖGRA - PS1010

*CuSn10Pb10-C*

Chemical Composition [wt%]	
Cu	remainder
Sn	10,0
Pb	9,5
Zn	<2,0
Ni	<2,0
P	<0,1

### Material Designation

Bögra: **PS1010** according to Production-Specification BT-PS1010-540

DIN: Complies with CuSn10Pb10-C according to DIN EN 1982:2017

### Material-No.

CC495K (formerly 2.1176 according to DIN 1716)

### Supplied as

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

### Applications

Bearing material with good sliding properties and good wear resistance. Suitable for use in composite castings.

Sliding bearings with high surface pressures in which edge pressures can occur, e.g. calander rollers, vehicle bearings, bearings for hot rolling mills with peak loads when well lubricated up to  $p = 6000 \text{ N/cm}^2$ . In composite bearings in combustion engines, loading up to  $10,000 \text{ N/cm}^2$ , e.g. piston-pins and gearbox bushings, thrust washers.

Physical properties (standard values)			
Condition		GC	GM
Density	$\rho$ [kg/dm <sup>3</sup> ]	9	
Coefficient of thermal expansion	$\alpha$ [ $\cdot 10^{-6}/\text{K}$ ]	18,7	
Electrical conductivity	$\kappa$ [MS/m]	6	
Modulus of elasticity	$E$ [kN/mm <sup>2</sup> ]	75	

Mechanical properties (standard values)			
Condition		GC	GM
Brinell Hardness	<b>HBW</b>	Min. 70	
0,2% - proofstress	<b>R<sub>p0,2</sub></b> [N/mm <sup>2</sup> ]	Min. 110	
Tensile strength	<b>R<sub>m</sub></b> [N/mm <sup>2</sup> ]	Min. 220	
Elongation	<b>A</b> [%]	8	
Compressive strength	<b>R<sub>d</sub></b> [N/mm <sup>2</sup> ]	-	
Max. loading pressure	<b>p<sub>zul.</sub></b> [N/mm <sup>2</sup> ]	Max. 60	

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