

# Material Data Sheet



## BÖGRA - F80

*CuZn23Al5Mn3Fe3Ni2-C*



Chemical Composition [wt%]	
Cu	remainder
Zn	23,0
Al	5,0
Fe	3,0
Mn	2,8
Ni	2,5

### Material Designation

Bögra: **F80** according to Production-Specification BT-F80-364 lead free

DIN: Not standardised but similar to CuZn23Al5Mn3Fe3Ni2-C according to DIN EN 1982:2017

### Material-No.

CC762S (formerly 2.0598 according to DIN 1709)

### Supplied as

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

### Applications

Low-friction material (Special Brass) with high hardness and resistance to both static and dynamic loading.

This lead-free, and therefore environmental-friendly alloy is particularly suitable for thrust-washers in highly loaded bearings and for small end bushings or piston pin bearings in combustion engines.

The use of amorphous carbon coatings on shafts like DLC is feasible.

Physical properties (standard values)			
Condition		GC	GM
Density	$\rho$ [kg/dm <sup>3</sup> ]	7,8	7,8
Coefficient of thermal expansion	$\alpha$ [*10 <sup>-6</sup> /K]	20	20
Electrical conductivity	$\kappa$ [MS/m]	3,5	3,5
Modulus of elasticity	$E$ [kN/mm <sup>2</sup> ]	130	130

Mechanical properties (standard values)			
Condition		GC	GM
Brinell Hardness	<b>HBW</b>	Min. 180	Min. 180
0,2% - proofstress	<b>R<sub>p0,2</sub></b> [N/mm <sup>2</sup> ]	Min. 480	Min. 480
Tensile strength	<b>R<sub>m</sub></b> [N/mm <sup>2</sup> ]	Min. 750	Min. 750
Elongation	<b>A</b> [%]	5	8
Compressive strength	<b>R<sub>d</sub></b> [N/mm <sup>2</sup> ]	1100	1100
Max. loading pressure	<b>p<sub>zul.</sub></b> [N/mm <sup>2</sup> ]	Max. 200	Max. 200

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