

# Material Data Sheet



## BÖGRA - T82

*CuAl10Fe5Ni5-C*

Chemical Composition [wt%]	
Cu	remainder
Al	9,5
Ni	5,0
Fe	4,7
Mn	<3,0
Zn	<0,5

### Material Designation

Bögra: **T82** according to Production Specification BT-T82-837

DIN: Complies with CuAl10Fe5Ni5-C according to DIN EN 1982:2008

### Material-No.

CC333G (2.0975) according to DIN 1714

### Supplied as

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

### Applications

This alloy is an aluminium-based composition bronze that we use in both continuous and gravity die casting production. It is a constructional material with very good strength characteristics and outstanding corrosion properties for highly stressed parts. It is fatigue resistant and resists scale formation.

This alloy is used in the petrochemical industry and in construction-equipment, wedges, welding jaws, electrode holders, worm and spur gears, helical and bevel gears, for bushings, impellers, pump housings and shut-off valves for a wide variety of media. The alloy withstands hot and cold seawater.

Physical properties (standard values)			
Condition		GC	GM
Density	$\rho$ [kg/dm <sup>3</sup> ]	7,6	7,6
Coefficient of thermal expansion	$\alpha$ [ $\cdot 10^{-6}$ /K]	16,5	16,5
Electrical conductivity	$\kappa$ [MS/m]	4,6	4,6
Modulus of elasticity	E [kN/mm <sup>2</sup> ]	124	124

Mechanical properties (standard values)			
Condition		GC	GM
Brinell Hardness	HBW	Min.150	Min.150
0,2% - proofstress	R <sub>p0,2</sub> [N/mm <sup>2</sup> ]	Min. 280	Min. 280
Tensile strength	R <sub>m</sub> [N/mm <sup>2</sup> ]	Min. 650	Min. 650
Elongation	A [%]	13	7
Compressive strength	R <sub>d</sub> [N/mm <sup>2</sup> ]	-	-
Max. loading pressure	p <sub>zul.</sub> [N/mm <sup>2</sup> ]	-	-

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