Material Data Sheet

BÖGRA - T82

CuAl10Fe5Ni5-C





| Chemical Composition [wt%] | | | |
|----------------------------|-----------|--|--|
| Cu | remainder | | |
| Al | 9,5 | | |
| Ni | 5,0 | | |
| Fe | 4,8 | | |
| Mn | <3.0 | | |

Material Designation

Bögra: T82 according to Production-

Specification BT-T82-837 lead free

DIN: Complies with CuAl10Fe5Ni5-C

according to DIN EN 1982:2017

Material-No.

CC333G (formerly 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 | ρ [kg/dm³] | 7,6 | 7,6 | | |
| Coefficient of thermal expansion | α [*10 ⁻⁶ /K] | 18 | 18 | | |
| Electrical conductivity | κ [MS/m] | 5 | 5 | | |
| Modulus of elasticity | E [kN/mm²] | 124 | 124 | | |

| Mechanical properties (standard values) | | | | | |
|---|---|----------|----------|--|--|
| Condition | 1 | GC | GM | | |
| Brinell Hardness | HBW | Min. 150 | Min. 150 | | |
| 0,2% - proofstress | Rp _{0,2} [N/mm ²] | Min. 280 | Min. 280 | | |
| Tensile strength | $R_m [N/mm^2]$ | Min. 650 | Min. 650 | | |
| Elongation | A [%] | 13 | 7 | | |
| Compressive strength | R _d [N/mm ²] | - | - | | |
| Max. loading pressure | p _{zul.} [N/mm ²] | - | - | | |

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