

# Material Data Sheet



## BÖGRA - F45

*CuZn37Al1-C*

| Chemical Composition [wt%] |           |
|----------------------------|-----------|
| Cu                         | remainder |
| Zn                         | 34,6      |
| Al                         | 1,1       |
| Ni                         | <2,0      |

### Material Designation

Bögra: **F45** according to Production-Specification BT-F45-352

DIN: Complies with CuZn37Al1-C according to DIN EN 1982:2017

### Material-No.

CC766S (formerly 2.0595 according to DIN 1709)

### Supplied as

- Gravity Die-Castings

### Applications

Constructional material for mechanical engineering, electrical engineering, precision engineering, components for high-speed printing machines and housings of fittings that are subject to high gas and water pressures. Highly suitable for low-temperature components. A material that is typified by good casting qualities, high strength and high ductility.

| Physical properties (standard values) |                                |    |     |
|---------------------------------------|--------------------------------|----|-----|
| Condition                             |                                | GC | GM  |
| Density                               | $\rho$ [kg/dm <sup>3</sup> ]   |    | 8,5 |
| Coefficient of thermal expansion      | $\alpha$ [ $\cdot 10^{-6}/K$ ] |    | 19  |
| Electrical conductivity               | $\kappa$ [MS/m]                |    | 8,8 |
| Modulus of elasticity                 | $E$ [kN/mm <sup>2</sup> ]      |    | 100 |

| Mechanical properties (standard values) |  |    |          |
|---|--|----|----------|
| Condition                               |  | GC | GM       |
| Brinell Hardness                        | <b>HBW</b>                                   |    | Min. 105 |
| 0,2% - proofstress                      | <b>R<sub>p0,2</sub></b> [N/mm <sup>2</sup> ] |    | Min. 170 |
| Tensile strength                        | <b>R<sub>m</sub></b> [N/mm <sup>2</sup> ]    |    | Min. 450 |
| Elongation                              | <b>A</b> [%]                                 |    | 25       |
| 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> ] |    | -        |

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