

Material Data Sheet



BÖGRA - E-Cu

Cu-C



Chemical Composition [wt%]	
Cu	99,7

Material Designation

Bögra: **E-Cu** according to Production-Specification BT-ECu-942 lead free

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

Material-No.

CC040A (formerly 2.0085 according to DIN 17655)

Supplied as

- Gravity Die-Castings

Applications

High-purity copper of excellent quality with high electrical and thermal conductivity. Used in the electrical industry for current carrying parts in cables and switchgear, for electrode arms and holders and for contact jaws.

Modern technology makes it possible to produce E-Cu with a purity of 99.99 % and achieve an electrical conductivity in castings of ≥ 55 MS/m, making the gravity die casting process particularly suitable for the production of switching contacts in load-shedding / isolating switches, moving coils, transformer windings and other electrical articles, especially given the high dimensional precision.

Physical properties (standard values)			
Condition		GC	GM
Density	ρ [kg/dm ³]		8,9
Coefficient of thermal expansion	α [$\cdot 10^{-6}/K$]		17
Electrical conductivity	κ [MS/m]		55
Modulus of elasticity	E [kN/mm ²]		96

Mechanical properties (standard values)			
Condition		GC	GM
Brinell Hardness	HBW		Min. 40
0,2% - proofstress	$R_{p0,2}$ [N/mm ²]		Min. 40
Tensile strength	R_m [N/mm ²]		Min. 150
Elongation	A [%]		25
Compressive strength	R_d [N/mm ²]		-
Max. loading pressure	$p_{zul.}$ [N/mm ²]		-

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