# **Material Data Sheet**



## BÖGRA - CuCr

CuCr1-C

Chemical Composition [wt%]		
Cu	remainder	
Cr	8,0	

### **Material Designation**

Bögra: CuCr according to Production

Specification BT-CuCr-945

DIN: Complies with CuCr1-C according to

DIN EN 1982:2008

#### Material-No.

CC140C (2.1292) according to DIN 17655

#### Supplied as

· Gravity Die-Castings

#### **Applications**

Hard and strong conductive copper alloy with high wear resistance. Used in the electrical industry for current carrying parts, for example in switch components, contact jaws, electrode arms, electrode holders, where high wear resistance is required at the same time as high conductivity. It is readily welded and hard soldered, readily galvanised and suitable for dip tinning, withstands short-term temperatures up to 350 °C and is corrosion resistant.

Where the strength and hardness of pure copper are not sufficient, a copper-chromium alloy can be a suitable solution.

Physical properties (standard values)		
Condition		GM
Density	ρ [kg/dm³]	8,9
Coefficient of thermal expansion	α [*10 <sup>-6</sup> /K]	17
Electrical conductivity	κ [MS/m]	45
Modulus of elasticity	E [kN/mm²]	120

Mechanical properties (standard values)			
Condition		GM	
Brinell Hardness	HBW	Min.95	
0,2% - proofstress	<b>Rp<sub>0,2</sub></b> [N/mm <sup>2</sup> ]	Min. 200	
Tensile strength	$R_m$ [N/mm <sup>2</sup> ]	Min. 300	
Elongation	<b>A</b> [%]	10	
Compressive strength	$R_d$ [N/mm <sup>2</sup> ]	-	
Max. loading pressure	p <sub>zul.</sub> [N/mm²]	-	

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 Rev.03
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