Material Data Sheet

BÖGRA – CuCr

CuCr1-C

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

Material Designation

Bögra: **CuCr** according to Production-Specification BT-CuCr-945 lead free

DIN: Complies with CuCr1-C according to DIN EN 1982:2017

Material-No.

CC140C (formerly 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		GC	GM
Density	ρ [kg/dm³]		8,9
Coefficient of thermal expansion	α [*10^{-6}/K]		17
Electrical conductivity	κ [MS/m]		45
Modulus of elasticity	E [kN/mm²]		120

Mechanical properties (standard values)			
Condition		GC	GM
Brinell Hardness	HBW		Min. 95
0,2% - proofstress	$Rp_{0,2}$ [N/mm²]		Min. 200
Tensile strength	R_m [N/mm²]		Min. 300
Elongation	A [%]		10
Compressive strength	R_d [N/mm²]		-
Max. loading pressure	$p_{zul.}$ [N/mm²]		-