Material Data Sheet

BÖGRA – T160K

CuAl7Si2Fe2Ni-C

Chemical Composition [wt%]	
Cu	remainder
Al	7,2
Si	2,6
Fe	2,2
Ni	1,5
Mn	1,1

Material Designation

Bögra: **T160K** according to Production-Specification BT-T160K-850 lead free

DIN: Not standardised

Material-No.

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Supplied as

- Machined Slide Bearings
- Gravity Die-Castings

Applications

This material is a hard and extremely wear-resistant special bronze. There has been excellent experience in using it for bearing components that are subjected to high shock loading, wear and surface pressures such as universal joint bushings, corner pieces, highly wear-resistant piston parts and others.
The material working against it must be hardened and ground. The experience with hard chromium plated shafts has been very good.

Physical properties (standard values)			
Condition		GC	GM
Density	ρ [kg/dm³]		7,6
Coefficient of thermal expansion	α [*10^{-6}/K]		16
Electrical conductivity	κ [MS/m]		4,3
Modulus of elasticity	E [kN/mm²]		105

Mechanical properties (standard values)			
Condition		GC	GM
Brinell Hardness	HBW		Min. 160
0,2% - proofstress	$Rp_{0,2}$ [N/mm²]		Min. 220
Tensile strength	R_m [N/mm²]		Min. 450
Elongation	A [%]		5
Compressive strength	R_d [N/mm²]		-
Max. loading pressure	$p_{zul.}$ [N/mm²]		Max. 140