

Material data sheet

CuCr1Zn (CW106C)

1) Chemical composition according to DIN EN 573-3 [% by mass, remainder Al]

%	Cu	Al	Cr	Co	Fe	Ni	Pb	Si	Zr	Each
min.	Remainder	-	0.5	-	-	-	-	-	0.03	-
max.	-	-	1.2	-	0.08	-	-	0.1	0.3	0.2

2) Mechanical properties according to DIN EN 12163

Temper	Dimensions in mm		R _m MPa		R _{p0.2} MPa		A%	HB
	D ^a	S ^b	min.	max.	min.	max.	min.	Typical value
R370	50<D≤100	25<S≤100	370	-	250	-	16	-
R430	30<-D≤50	10<S≤25	430	-	350	-	10	-
R470	4<-D≤30	-	470	-	420	-	8	-

D^a = Diameter for round rod / S^b = Width across flat for square and hexagonal rod, Thickness for rectangular rod / c Properties may be obtained by press quenching.

Physical properties		Fabrication properties	
Density g/cm ³	8.9	Machinability	poor
Modulus of elasticity kN/mm ²	120	Cold-working properties	poor
Thermal conductivity W/(m K)	322	Hot-working properties	good
Coefficient of thermal expansion (20-100 °) 10 ⁻⁶ /K	17		
Electrical conductivity MS/m	46		
General properties			
With medium strength values very high electrical and thermal conductivity. High softening temperature. Electrodes for resistance welding.			

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