

Hard Copper Alloys of Kor Bakir

Korbak HC 1

Korbak HC1-CuBe2 - EN-CW 101C

Some of Applications of Korbak HC 1

- Seam welding discs(wheels)
- Bottom cooling plate of plastic injection moulds
- Non-sparking hand tools



Flash welding process of wheel rim and electrodes

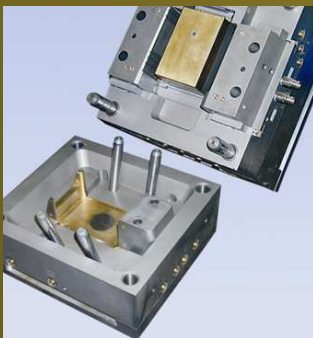
Mechanical & Pysical Properties of Korbak HC 1

Hardness	370-430 HB
Yield strength	960-1060 Mpa
Tensile strength	1.210-1.310 Mpa
Electrical conductivity	% 26 I.A.C.S
Gravity	8,3 gr/cm ³
Chemical Composition	Be:2,0 - Ni +Co :0,7 Other:0,2 Cu: Rest

It has great hardness ,very good strength, high electrical and thermal conductivity.It can be used in some applications which needs very high hardness. Additionally it is non-sparking material for using in combustible atmosphere.



Non-sparking hand tools



Bottom cooling plate of plastic injection moulds



Properties Table of Products

Alloy	Chemical Comp.		Mech.& Physical Properties
Korbak HC1 CuBe2	%Be:2	%Co+Ni:0,5	Yield st.: 1.000 Mpa Tensile : 1.210-1.310 Mpa Hardness: 370- 430 HB Conductivity:26 I.A.C.S Gravity: 8,3 g/cm ³
	%Cu:Rest	%Other:0,5	
Korbak HC 3 CuCo1Ni1Be	%Be:0,5	%Co:1,0	Yield st.: 650-840 Mpa Tensile : 680-900 Mpa Hardness:220-270 HB Conductivity:48 I.A.C.S Gravity :8,80 g/cm ³
	%Cu:Rest	%Ni:1,0	
Korbak HC 4 CuCo2Be	%Be:0,5	%Co:2,4	Yield st.:380-560 Mpa Tensile :710-910 Mpa Hardness:220-260 HB Conductivity: 48 I.A.C.S Gravity : 8,80 g/cm ³
	%Cu:Rest	%Ni:0,3	
Korbak HC 6 CuCr1Zr	%Cr:1,0	%Zr:0,1	Yield st.:300-320 Mpa Tensile :370-400 Mpa Hardness:120-160 HB Conductivity: 86 I.A.C.S Gravity : 8,9 g/cm ³
	%Cu:Rest	%Other:0,2	
Korbak HC 11 CuNi2SiCr	%Si:0,8	%Cr:0,4	Yield st.: 490-550 Mpa Tensile : 700-900 Mpa Hardness: 200-240 HB Conductivity:%52 Gravity :8,75 g/cm ³
	%Cu:Rest	%Ni:2,4	
Korbak HB 10 CuAl10Ni5Fe4	%Al:10,0	%Mn: 1,5	Yield st.: 710-810 Mpa Tensile : 860-960 Mpa Hardness:280-300 HB Gravity: 7,5 g/cm ³
	%Cu:Rest	%Ni: 5,0	
Korbak HB 15			Compr. yield st : 1600 Mpa Hardness: 40-43 HRC Gravity: 7,0 g/cm ³ Coeff. of fric.: 0,18 µs

Korbakir Alaşimleri is one of the important manufacturers who supplies Electric Resistance Welding consumables, plunger tips, non-ferro casting dies, plastic moulds cooling plate and aluminium bronzes for deep drawing dies or bushings, gears, bearings and machine parts ***with guarantee of 3.1 B certificate.***

Korbakir has a team with many years of experience and deep knowledge of producing special hard copper alloys and special bronzes .

Our **value-added products**, which have good thermal ,mechanics and chemical properties, are manufactured in high technological standards.

PRODUCING ACCORDING TO ANY DRAWINGS OR DIMENSIONS.

Our production facilities;



Centrifugal casting



Sand casting



Die casting

Forging

Heat Treatment



Rough Machining



CNC Machining

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