

Hard Copper Alloys of Kor Bakir

Korbak HC 6

Korbak HC 6 – CuCr1Zr - EN-CW 106C

Some of Applications of Korbak HC 6:

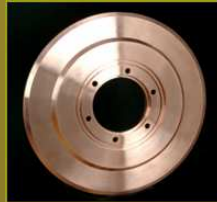
- Seam welding discs(wheels)
- Spot welding electrodes
- Disc holder and arms
- Connectors
- Gravity casting dies for brass or non-ferrous casting

Seam Welding Discs are used for :

- For welding of panel Radiators
- For welding of fuel tanks of car
- For welding of kitchen sinks
- For welding of steel cans
- For welding of Steel barells ,etc....



Seam welding of panel radiator by discs



Seam welding disc(wheel)

Spot Welding Electrodes are used for:

- For welding of car bodies
- For welding of household machines ..etc...



Spot welding electrodes and process



Arms



Seam welding of barrel by discs

Mechanical & Pysical Properties of Korbak HC 6

Hardness	120-160 HB	
Yield strength	300-320 Mpa	
Tensile strength	370-400 Mpa	
Electrical conductivity	% 86 I.A.C.S	
Gravity	8,9 gr/cm ³	
Chemical Composition	Cr:1,0	Zr:0,1
	Other:0,2	Cu: Rest

Hard copper alloy with high electrical conductivity and high mechanical properties provides us to use for especially RW application.

Resistance Welding is a welding process, in which work pieces are welded due to a combination of a pressure applied to them and a localized heat generated by a high electric current flowing through the contact area of the weld.

Additionally it used for contacts of electrical lines as a result of high elec. Conductivity and used for **ingot moulds** for gravity die casting of brass and copper.



Ingot Parts

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 Alaşımları 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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