

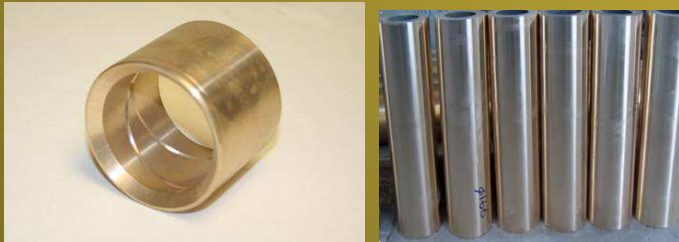
Hard Bronzes of Kor Bakir

Korbak HB 10

Korbak HB 10 –CuAl10Ni5Fe4

Some of Applications of Korbak HB 10:

- Bronze gears
- Bronze bushings
- Bronze bearings
- Machine parts require hardness and wear resistance
- Pipe mandrels ,rolls , wiper dies



Bushings



Gears



Bearings



Machine parts



Pipe mandrels
and rolls



Wiper dies

Mechanical & Physical Properties
of Korbak HB 10

Properties :

Hardness	280-300 HB
Yield strength	710-810 Mpa
Tensile strength	860-960 Mpa
Gravity	7,5 gr/cm ³

Chemical Composition:

Al% :10,0 - Ni% :5,0 – Fe% :4,8 – Mn% :1,5 – Cu%:rest

It is rapidly growing in use where higher mechanical properties are required.

Korbak HB 10 has great corrosion and wear resistance with its higher hardness and strength.

As a result of all these properties, this alloy is the most preferred material by many machine manufacturers, marine and even aircraft manufacturers. Additionally it can be used in food industry machine because of **Anti-corrosive and Lead (Pb) free** properties.

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

KORBAKIR ALAŞIMLARI

Address:İsdök San. Sit. 4.Blok No:1 İkitelli/İstanbul, Tel:+90212 485 38 68 - Fax: +90212 485 38 36

www.korbakir.com , info@korbakir.com