CuZn0.5

CuZn0.5

CuZn0.5 is a deoxidized copper alloy with a zinc addition. The alloy offers good electrical conductivity (min 82% IACS) and enhanced durability compared to pure copper. The alloy features excellent welding and soldering properties.

Comparable Standarts

EN	JIS
CW119C	-

Chemical Composition %

Cu	Zn	Pb
rem.	0.1-1.0	0.02 max.

Physical Properties

Melting Point	1081	[°C]
Density	8.92	(g/cm³)
Cp @ 20°C	0.386	[kJ/kgK]
Thermal Conductivity	350	(W/mK)
Electrical Conductivity	≥83	%IACS
Modules of Elasticity	127	[GPa]
@20-300°C	17.7	[10-6/K]

Note: The specified conductivity applies to the soft condition only.

Cp specific heat

α thermal expansion coefficent

Fabrication Properties

Cold Formability	excellent
Hot Formability	excellent
Machinability	not recommended
Oxyacetylene welding	fair
Gas shield arc welding	good
Resistance welding	not recommended
Brazing	good
Soldering	excellent

Electrical Conductivity

Electrical conductivity depends on chemical composition, the level of cold deformation, and grain size. A high degree of deformation and a small grain size reduce conductivity.

Typcial Uses

It is used in electrical, architectural, and metalware applications.

Corrosion Resistance

Copper is resistant to natural and industrial atmospheres, marine air, potable and service water, non-oxidizing acids, alkaline solutions, and neutral saline solutions.
Copper has low corrosion resistance in environments containing ammonia, halogenide, cyanide and hydrogen sulfide solutions and atmospheres, oxidizing acids, and seawater (especially at high flow rates).

Mechanical Properties

	Tensile Strength [MPa]	Yield Strangth [MPa]	Elongation A50 [%]	Hardness HV [-]	Bend ratio 90° [r]	
					GW	BW
R220	220-260	≤ 140	≥ 33	40-65	0	0
R240	240-300	≥ 180	≥ 8	65-95	0	0
R290	290-360	≥ 250	≥ 4	85-115	0	0
R360	≥ 360	≥ 320	≥ 3	≥ 110	0.5	1

Other tempers are available upon request.

r = x * t (thickness t ≤ 0.5mm)

GW bend axis transverse to rolling direction. BW bend axis parallel to rolling direction.

Dimensional Specifications

Thickness (mm)	Width (mm)
0.10-0.20	10-420
0.21-1.00	5-450
1.01-4.00	15-450
4.01-5.00	25-450

Altek Döküm A.Ş. Beylikdüzü OSB Mustafa Kurtoğlu Cad.No: 10/1Beylikdüzü - İstanbulTÜRKİYE
satis@altekdokum.comwww.altekdokum.com

This data sheet is a general technical product information and has no legal warranty. Binding technical features are subjected to the contact.

Rev.11.2026