

CuZn0.5

ALLOY NAME

UNS	DIN CEN/TS 13388	KMW
C18661	2.0205	CuZn0.5

Chemical Composition	(% By Weight)	Main Applications
Zn	0.1...1.0 %	Automotive
P	< 0.02 %	Industrial
Other	< 0.10 %	Electrical
Cu	Remainder %	Starter, Switches and Relays, Contacts, Connectors, Terminals Metal Goods, Apparatus and Construction Industry Leadframes, Cables for Telecommunication, Antenna, Data Cables etc.

Physical Properties Typical values in annealed temper at 20 Â°C

Density	8.92	g/cm ³
Thermal expansion coefficient -191 .. 16 / 0 .. 300°C	17.7	10 ⁻⁶ /K / 10 ⁻⁶ /K
Specific heat capacity	0.386	J/(g•K)
Thermal conductivity	350	W/(m•K)
Electrical conductivity (1 MS/m = 1 m/(O mm ²))	46...51	MS/m
Electrical conductivity (IACS)	79...88	%
Thermal coefficient of electrical resistance (0 .. 200 C)	3.2	10 ⁻³ /K
Modulus of elasticity (1 GPa = 1 kN/mm ²) cold formed	125	GPa / GPa

Mechanical Properties (EN 1652)

Temper	Tensile Strength Rm MPa (N/mm ²)	Yield Strength Rp0.2 MPa (N/mm ²)	Elongation Minimum A50mm %	Hardness HV
O (SOFT)	210 Min	< 140	35 Min	65 Max
HB (Half Hard)	250 Min		10 Min	70 to 95
HD (Hard)	290 Min	≥ 250	4 Min	90 Min

Fabrication Properties

Cold Forming Properties Max. 95% between annealings
Hot Forming Properties at 800 ...900;ä C
Machinability (Rating 25)
Hot tinning Properties
Soft Soldering

Excellent
Excellent
Fair
Good
Good