



Estd. 1935

CuZn 20

ALLOY NAME

AMW-24	IS	ISO	UNS	JIS	KMW
CuZn20	CuZn20	CuZn20	C24000	C2400	CuZn20

Chemical Composition	(% By Weight)	Main Applications	
Cu	78.5 - 81.5 %	Electrical	Battery Caps, Rotor Bars, AC Motors
Pb	≤ 0.05 %	Industrial	Pump lines, Welding Wire, Flexible Hose
Fe	≤ 0.05 %	Consumers	Clock Dials, Musical Instrument Parts
Zn	Remainder %	Architecture	Ornamental Components
Total Impurity	< 0.15 %		

Physical Properties Typical values in annealed temper at 20°C

Density	8.67	g/cm ³
Thermal expansion coefficient -191 .. 16 / 0 .. 300°C	9.0 / 18.8	10-6/K / 10-6/K
Specific heat capacity	0.380	J/(g·K)
Thermal conductivity	142	W/(m·K)
Electrical conductivity (1 MS/m = 1 m/(Ω mm ²))	≥ 19	MS/m
Electrical conductivity (IACS)	32.8	%
Thermal coefficient of electrical resistance (0 .. 200 C)	1.5	10-3/K
Modulus of elasticity (1 GPa = 1 kN/mm ²) cold formed	99....115 / 119	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)	265 Min	< 150	40 Min	80 Max
HB (Half Hard)	340 Min	≥ 200	10 Min	95 Min
HD (Hard)	400 Min	≥ 320	5 Min	120 Min

Fabrication Properties	Cold Forming Properties Max. 90% between annealings	Excellent
	Hot Forming Properties at 750 .. 870°C	Good
	Machinability (Rating 30)	Less Suitable
	Electroplating Properties	Excellent
	Hot Tinning Properties	Excellent
	Soft Soldering, Brazing	Excellent
	Resistance Welding	Good
	Gas Shielded Arc Welding	Fair

