



80/20 Characteristics

CuZn20 has excellent cold forming, good hot forming properties and is well suited for e.g. coinage, beating, embossing. This alloy has a higher strength than pure copper. CuZn20 has good welding and brazing properties as well as a good corrosion resistance and is not fragile to stress corrosion and dezincification. It is principally used in jewellery, metal goods, watch industry and in electronic industry for installation part



Alloy Name	
AMW-24	CuZn20
IS	CuZn20
ISO	CuZn20
UNS	C24000
JIS	C2400

Chemical Composition	Weight percentage
Cu	78.5 - 81.5 %
Pb	≤ 0.05 %
Fe	≤ 0.05 %
Zn	Remainder %
Total Impurity	< 0.15 %

Main Applications

Electrical :	Battery Caps, Rotor Bars, AC Motors
Industrial :	Pump lines, Welding Wire, Flexible Hose
Consumers :	Clock Dials, Musical Instrument Parts
Architecture :	Ornamental Components

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	Yield Strength	Elongation Minimum A50mm %	Hardness HV
	Rm MPa(N/mm ²)	Rp0.2 MPa(N/mm ²)		
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

