



Estd. 1935

CuZn 33

ALLOY NAME

BS CZ107	ASTM	JIS	KMW
CuZn33	C26800	C2680	CuZn33

Chemical Composition	(% By Weight)	Main Applications	
Cu	64.00–67.00%	Electrical	Socket Shells, Flashlight Shells, Lamp Fixture, Reflectors, Screw Shells.
Pb	0.10% Max	Fasteners	Pins, Rivets, Grommets, Eyelets, Screws.
Fe	0.10% Max	Industrial	Springs, chain, Bead Chain.
Zn	Remaining	Automotive	Radiator Cores, Tanks.
Other Impurity	0.40%		

Physical Properties Typical values in annealed temper at 20°C

Density	8.33	g/cm ³
Thermal expansion coefficient -191 .. 16	17.0	10-6/K
Specific heat capacity - 0 .. 300°C	20.2	10-6/K
Thermal conductivity	0.377	J/(g•K)
Electrical conductivity (1 MS/m = 1 m/(O mm ²))	121	W/(m•K)
Electrical conductivity (IACS)	14	MS/m %
Thermal coefficient of electrical resistance (0 .. 200 C)	1.7	10-3/K
Modulus of elasticity (1 GPa = 1 kN/mm ²) cold formed	99....115	GPA

Mechanical Properties (EN 1652)

Temper	Tensile Strength Rm MPa (N/mm ²)	Yield Strength Rp0.2 MPa (N/mm ²)	Elongation A50mm %	Hardness HV
O (SOFT)	280 Min	180	45 Min	80 Max
HB (Half Hard)	340 Min	180	35 Min	75 Min
HD (Hard)	385 Min	300	20 Min	110 Min
HE (Extra Hard)	460 Min	350	5 Min	135 Min
HE (Extra Hard)	525 Min	450		165 Min

Fabrication Properties	Cold formability	Excellent
	Hot formability	Not Recommended
	Soldering	Excellent
	Brazing	Excellent
	Oxyacetylene welding	Good
	Gas shielded arc welding	Fair
	Machinability	Fair

