

Alloy Designation

EN	CuZn15
DIN CEN/TS 13388	CW502L
UNS	C23000

Chemical Composition (Balance)

Weight percentage

Cu	85	%
Zn	Rest	%

Characteristics

CuZn15 has very good cold forming properties and is well suited for e.g. coinage, beating, embossing. This alloy has a higher strength as pure copper. It has good welding and brazing properties as well as a good corrosion resistant and is not fragile to stress corrosion and dezincification. **CuZn15** is principally used in jewellery, metal goods, watch industry and in electronic industry for installation parts.

Main Applications

Jewellery and metal good, Components for the electrical industry, Cladding Panels.

Mechanical Properties (EN 1652)

Temper	Tensile Strength Rm	Yield Strength Minimum Rp _{0.2}	Elongation Minimum A _{50mm}	Hardness HV *	Bending 90°	
	MPa	MPa	%	HV	gw rel. Bending Radius R/T	bw
					Strip Thickness ≤ 0.50mm	
R300	300 .. 370	≤ 170 *	16	85 .. 120	0	0
R350	350 .. 420	270 *	8	100 .. 150	0	0
R410	410 .. 490	360 *	3	125 .. 155	0	1
R480	480 .. 560	420 *	1	150 .. 180	1	3
R550	≥ 550	480 *	-	≥ 170	-	-

* only for information

Physical Properties

Typical values in annealed temper at 20 °C

Density		8.75	g/cm ³
Thermal expansion coefficient	20 .. 300 °C	18.5	10 ⁻⁶ /K
Specific heat capacity		0.377	J/(g·K)
Thermal conductivity		159	W/(m·K)
Electrical conductivity	MS/m	20	MS/m
Electrical conductivity	IACS	34	%
Thermal coefficient of electrical resistance	(0 .. 100 °C)	2.6	10 ⁻³ /K
Modulus of elasticity	GPa	122	GPa

Fabrication Properties *

Cold Forming Properties	Good
Machinability (Rating 20)	Less suitable
Electroplating Properties	Excellent
Hot Tinning Properties	Excellent
Soft Soldering, Brazing	Excellent
Resistance Welding	Good
Gas Shielded Arc Welding	Good
Laser Welding	Fair

* For more details call our technical service

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