

Edition from	14.01.2022	Alloy datasheet	No. 230
---------------------	-------------------	------------------------	----------------

Alloy	ISO	EN	ASTM
E70	CuZn30	CW505L	C26000

Others:

- -

Main characteristics Copper-zinc alloy with an α phase structure. The alloy exhibits an excellent combination of strength and ductility and is commonly used whenever severe cold deformation (e.g. deep-drawing, spinning) is involved.

Chemical composition

	Cu 69,0 – 71,0 %	Zn Remainder	Pb Max. 0,05 %
--	---------------------	-----------------	-------------------

Impurities Max.	Al 0,02 %	Fe 0,05 %	Ni 0,3 %	Sn 0,1 %	Others 0,10 %
------------------------	--------------	--------------	-------------	-------------	------------------

Product portfolio Hot extruded and cold drawn products

Section type	Round. On demand: square, hexagonal, flat
Rod	Available
Wire	Available
Profile	On demand

Examples of use Wide variety of deep-drawn and spun components (e.g. cartridge cases, musical instruments, flashlight case reflectors, fire-extinguisher bodies); cold headed products; springs.

Mechanical properties	Form	Dimension Ø	Temper	UTS N/mm ²	YS N/mm ²	A %	Hardness HB
	Rod Wire	4 - 80	R280 H070	Min 280 -	Max 250 -	45 -	- 70 -115
		4 - 40	R370 H105	Min 370 -	Min 230 -	16 -	- 105 – 135
		4 - 10	R460 H135	Min 460 -	Min 310 -	9 -	- Min 135

Other tempers on demand

Physical properties	Density	kg/dm ³	8,5
	Melting range	°C	910 - 960
	Linear expansion coefficient (20-400°C)		0,000020
	Specific heat	J/kg K	380
	Thermal conductivity at 20°C	W/m · K	121
	Electrical conductivity at 20°C	% IACS	23
	Elasticity modulus	kN/mm ²	197 - 115

Edition from	14.01.2022	Alloy datasheet	No. 230
---------------------	-------------------	------------------------	----------------

Workability	Cold working, maximum section reduction	%	excellent, 90
	Hot working, temperature range	°C	good, 750 - 850
	Machining, compared with CuZn39Pb3 (100 %)	%	poor, 30
	Annealing temperatures	°C	450 - 650
	Stress relieving temperatures	°C	250 - 350
	Soft soldering		excellent
	Hard soldering		excellent
	Autogenous welding		good
	Arc welding		good
	Resistance welding		poor

Symbols	∅	= round rod diameter (mm)
	UTS	= ultimate tensile strength
	YS	= yield stress at 0,2 %
	A	= tensile elongation
