

Edition from	27.10.2021	Alloy datasheet	No. 337
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Alloy	ISO	EN	ASTM
60M	CuZn38Pb2	CW608N	C37700

Others:

- Swissmetal internal ISO designation: CuZn38Pb1.5

Main characteristics	Free machining brass offering a better cold deformability than the standards of machining.
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Chemical composition	Cu 60,0 – 60,8 %	Zn Remainder	Pb 1.6 – 1,9 %	
Impurities Max.	Ni 0,2 %	Sn 0,2 %	Fe 0,1 %	Others 0,2 %

Product portfolio	Hot extruded and cold drawn products			
	Section type	Round, square, hexagonal		
	Rod	Available		
	Wire	Available		
	Profile	On demand		

Examples of use	Any part made by a combination of machining and a light cold deformation, thread rolling, bending and revetting.
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Mechanical properties	Form	Dimension Ø	Temper	UTS N/mm ²	YS N/mm ²	A %	Hardness HV
	Rod Wire	2 – 40 mm	R410	≥410	230	≥12	-
			H100	-	-	-	100
		2 – 14 mm	R500	≥500	350	≥8	-
			H120	-	-	-	120

Other tempers on demand

Physical properties	Density	kg/dm ³	8,4
	Melting range	°C	885 – 910
	Linear expansion coefficient (20-400°C)		0,00021
	Specific heat	J/kgK	380
	Thermal conductivity at 20°C	W/mK	120
	Electrical conductivity at 20°C	% IACS	23,0
	Elasticity modulus	kN/mm ²	95 – 110

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Workability	Cold working, maximum section reduction	%	fair, 50
	Hot working	%	good, 85
	Machining, compared with CuZn39Pb3 (100 %)	%	good, 80
	Annealing temperatures	°C	450 - 550
	Stress relieving temperatures	°C	250 - 300
	Soft soldering		good
	Hard soldering		poor-fair
	Autogenous welding		poor-fair
	Arc welding		poor-fair
	Resistance welding		poor-fair

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