

Alloy CW510L

Alloy denomination

EN	ISO	ASTM	BS
CW510L	CuZn42	C28500	n.a.

User sectors

Automotive and transport industry, fashion industry and plumbing industry.

General properties

The alloy CW510L is characterised by the absence of lead and it combines a good capacity for being hot worked with a satisfying machinability for chip removal. This alloy is included in the 4MS list of the European directives and it can be used for products that have to be in contact with drinking water.

Chemical composition

Cu (%)	Al (%)	Fe (%)	Ni (%)	Pb (%)	Sn (%)	Zn (%)	Other (%)
57,0 - 59,0	≤ 0,05	≤ 0,3	≤ 0,2	≤ 0,008	≤ 0,3	Remainder	≤ 0,2

Mechanical properties*

Condition of material	Hardness - HB	Tensile strength - Rm (N/mm ²)	Yield strength 0,2% - Rp _{0,2} (N/mm ²)	Elongation - A (%)
M	90 - 170	430 - 480	310 - 380	20 - 30

*Indicative values for informational purposes only, specific properties and conditions of material may be arranged.

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Physical properties*

Density (g/cm ³)	8,4
Electrical conductivity (MS/m)	16,3
Electrical conductivity (IACS %)	24
Coefficient of thermal expansion (10 ⁻⁶ /K)	21,2
Thermal conductivity (W/(m K))	112
Specific heat (J/(kg K))	381
Elasticity module (kN/mm ²)	85
Melting point (°C)	870 - 890

*Indicative values for informational purposes only.

Fabrication properties*

Machinability	■	■	■	■	■	■
Weldability	■	■	■	■	■	■
Hot forming	■	■	■	■	■	■
Cold forming	■	■	■	■	■	■
Corrosion resistance	■	■	■	■	■	■

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