

Alloy CW612N

Alloy denomination

EN	ISO	ASTM	BS
CW612N	CuZn39Pb2	C37700	CZ128

User sectors

Automotive and transport industry, chemical industry, mechanical industry, fashion industry, plumbing industry, construction industry, electronic industry, electrical industry and medical industry.

General properties

The alloy CW612N is characterised by excellent hot forging properties, good cold formability and optimal ductility thanks to its high copper content. Moreover, this highly workable alloy is included in the 4MS list of the European directives and hence it can be used for products that have to be in contact with drinking water.

Chemical composition

Cu (%)	Al (%)	Fe (%)	Ni (%)	Pb (%)	Sn (%)	Si (%)	Zn (%)	Other (%)
59,0 - 60,0	≤ 0,05	≤ 0,3	≤ 0,1	1,6 - 2,2	≤ 0,3	≤ 0,03	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	80 - 150	400 - 450	300 - 350	25 - 35

*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)	13,8
Electrical conductivity (IACS %)	23
Coefficient of thermal expansion (10 ⁻⁶ /K)	20,7
Thermal conductivity (W/(m K))	120
Specific heat (J/(kg K))	380
Elasticity module (kN/mm ²)	105
Melting point (°C)	880 - 900

*Indicative values for informational purposes only.

Fabrication properties*

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

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