GHIDINI TRAFILERIE

# Alloy CW614N

## Alloy denomination

| EN | ISO | ASTM | BS |
|---|---|---|---|
| CW614N | CuZn39Pb3 | C38500 | CZ121 |

## 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 CW614N is characterised by high machinability thanks to its relatively high lead content. This alloy exhibits optimal performance in free machining. Furthermore, the alloy complies with the 4MS restrictions of the European directives.

## Chemical composition

| Cu (%) | Al (%) | Fe (%) | Ni (%) | Pb (%) | Sn (%) | Si (%) | Zn (%) | Other (%) |
|---|---|---|---|---|---|---|---|---|
| 57,0 - 59,0 | ≤ 0,05 | ≤ 0,3 | ≤ 0,2 | 2,5 – 3,5 | ≤ 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 | 110 - 150 | 430 - 500 | 220 - 350 | 15 - 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) | 13,8 |
| Electrical conductivity (IACS %) | 24 |
| Coefficient of thermal expansion ($10^{-6}$/K) | 20,9 |
| Thermal conductivity (W/(m K)) | 123 |
| Specific heat (J/(kg K)) | 380 |
| Elasticity module (kN/mm$^2$) | 105 |
| Melting point (°C) | 875 - 890 |

*Indicative values for informational purposes only.

## Fabrication properties*

| | | | | | | |
|---|---|---|---|---|---|---|
| Machinability | | | | | | |
| Weldability | | | | | | |
| Hot forming | | | | | | |
| Cold forming | | | | | | |
| Corrosion resistance | | | | | | |

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