Data sheet

CW612N
CuZn39Pb2– Rolled products

Alumeco A/S

Internal alloy name:	**CW612N**
International alloy name:	**CuZn39Pb2**
DIN-Werkstoff no.:	**2.0402**
Alloy type:	**-**
Revision date:	**14-01-2021**

Main usage

- Electrical
- Architecture
- Consumer
- Fasteners industrial
- Ordnance
- Coins

Main properties

- Excellent hot working and forging properties
- Good for machining operations

Important norms and literature

Rolled products
EN1652: Copper and copper alloys - Plate, sheet, strip and circles for general purposes.

Wires:
EN12166: Copper & copper alloys-general purpose wires.

Rods:
EN12167:Copper and copper alloys -Profiles and rectangular bars for general use

Chemical composition (%) DIN EN

Cu	Al	Fe	Ni	Pb	Sn	Zn	Other elements
59,0-60,0	Max. 0,05	Max. 0,3	Max. 0,3	1,6-2,5	Max 0,3	Rest.	Max. 0,2

Typical mechanical properties DIN EN

Material condition	Thickness range (mm)	Rm MPa	$Rp_{0,2}$ MPa	A_{50mm} for thickness up to 2,5mm %	A for thickness up to 2,5mm %	Hardness HBW	Hardness HV
R360 (soft)	0,2 - 5	360-440	Max. 270	**30**	40	-	-
R490(1/2 hard)	0,2 – 5	490-570	Min. 420	-	9	-	-

** Information values only

Physical properties

Density (20 °C) g cm^{-3}	Solidification range °C	Electrical conductivity %IACS	Thermal conductivity (20 °C) W m^{-1} K^{-1}	Thermal expansion (20-300 °C) µm m^{-1} K^{-1}	Annealing temperature °C	E - modulus (20 °C) N mm^{-2}
8.1	880	30	120	21		-

Properties and information

Fabrication Properties

Hot Formability	**Excellent**
Cold Formability	**Fair**

Joining Methods

Soldering	**Fair**
Brazing	**Fair**
Oxy-acetylene welding	**Not Recommended**
Gas-shielded arc welding	**Not Recommended**