

CZ129 / CW611N is a 60/40 low leaded brass that is similar to muntz metal but with a fine dispersion of lead particles. It offers excellent hot working properties and very good cold formability and machinability.

Known as a bending brass the CZ129 / CW611N grade also offers a good strength, ductility and general corrosion resistance. This combination of properties is ideal for components that require hot forging or upset forging followed by some machining.

### Related Specifications

CZ129	C37000
CW611N	CuZn39Pb1

### Nominal Composition

Copper	59.0-60.0%
Lead	0.80-1.60%
Nickel	0.30% max
Iron	0.20% max
Aluminium	0.05% max
Tin	0.20% max
Zinc	Remainder
Total Others	0.20% max

### Key Features

- Good hot and cold forming properties
- Good Corrosion resistance

### Typical Physical Properties

Melting Point	920°C
Density	8.41 g/cm <sup>3</sup>
Specific Heat	377 J/Kg°K
Thermal conductivity (RT)	121 W/m°K
Thermal expansion coefficient (20-200°C)	20.9 x 10 <sup>-6</sup>
Electrical conductivity	26% IACS
Youngs Modulus	97 GPa

### Fabrication Properties

Hot Working Temperature Range	700-750°C
Hot Formability	Excellent
Cold Formability	Good
Machinability rating (free cutting brass = 100)	60%
Annealing Temp. Range	450-650°C
Stress Relieving Temp. Range	250-350°C

## Joining Methods

Soldering	Excellent
Brazing	Good
Oxy-acetylene welding	Not recommended
Gas-shielded arc welding	Not recommended
Resistance welding: Spot and Seam	Not recommended
Butt	Not recommended

## Typical Uses:

The C611N / CZ129 is a standard bending brass which can be readily hot and cold formed or riveted for a variety of applications including architectural, decorative and industrial applications.

This technical information is given by Holme Dodsworth Metals without charge and the user shall employ such information at their own discretion and risk. For more detailed technical advice on temper selection, fabrication, joining, machining, physical and mechanical data please contact us as space does not permit the listing of every feature of the material.