HOLME DODSWORTH METALS LIMITED
www.holmedodsworth.com

CW617N / CZ122 is classed as stamping brass and is mainly supplied as rod for forging stock although it is also free machining. The material consists mainly of 59% copper 39% zinc with a 2% lead addition that is finely dispersed throughout the microstructure.

The CW617N / CZ122 exhibits an excellent combination of hot working and machining properties and is most commonly utilized for the production of more complex hot pressed components. If sheet material is also required to complete a contract, the equivalent grade for this material would be CW608N / CZ120. This grade is also available in a comprehensive range of thicknesses from Holme Dodsworth stocks.

Related Specifications

CZ122	CW617N
C37700	CuZn39Pb2

Nominal Composition

Copper	56-58.5%
Lead	1.5-2.5
Iron	0.3% max
Zinc	Rem
Total Imps	0.7% max

Key Features

- Excellent hot forming properties
- Good corrosion resistance
- High machinability rating

Typical Physical Properties

Melting Point	895°C
Density	8.4 g/cm³
Specific Heat	380 J/Kg°K
Thermal conductivity (RT)	117 W/m°K
Thermal expansion coefficient (20-200°C)	20 x 10^{-6}
Electrical conductivity	27% IACS
Electrical Resistivity	0.064 ohm mm^2/m

Fabrication Properties

Hot Working Temperature Range	650-775°C
Hot Formability	Excellent
Cold Formability	Limited
Machinability rating (free cutting brass = 100)	85%

Annealing Temp. Range	450-600°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	Fair

Typical Uses:

The C617N / CZ122 is utilised for a wide range of hot forged and pressed components including sanitary appliances, door furniture, window fittings taps and valve parts, automotive components, decorative items, brackets, clamps, housing, gears, cams, nuts, clock and watch parts and other components requiring a high degree of precision machining.

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.