

Data Sheet

STAMPING BRASS - CZ122/CW617N

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 Metelec.

Key Features:	
Excellent hot forming properties	
Good corrosion resistance	
High machinability rating	
Related Specifications:	
CZ122	CW617N
C37700	CuZn39Pb2
Chemical Composition:	
Copper	56 - 58.5%
Lead	1.5 - 2.5
Iron	0.3% max
Zinc	Rem
Total Imps	0.7% max

Typical Uses:

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

Typical Physical Properties:	
Melting point	895°C
Density	8.4 g/cm ³
Specific heat	380 J/Kg °K
Thermal conductivity	117 W/m°C
Thermal expansion coefficient (20 - 200°C)	20 x 10 ⁻⁶ per °C
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 butt	Not recommended - Fair