

The CW505L / CZ106 is an alpha brass sometimes referred to as cartridge brass, with an approximate zinc content of 30% with the balance of the composition being copper.

CW505L / CZ106 exhibits an excellent combination of strength and ductility for the alpha phase brasses. This grade is used for its outstanding deep drawing properties and excellent cold workability.

Related Specifications

CW505L	CZ106
C26000	CuZn30

Chemical Composition

Copper	68.5-71.5%
Lead	0.05% max
Iron	0.05% max
Zinc	Rem
Others	0.30% max

Key Features

- Superb cold forming properties
- Excellent deep drawing characteristics
- Good Corrosion resistance
- Optimum combination of strength and ductility for alpha brasses

Typical Physical Properties

Melting Point	965°C
Density	8.55 g/cm ³
Specific Heat	380 J/Kg°K
Thermal conductivity (RT)	121 W/m°K
Thermal expansion coefficient (20-200°C)	19 x 10 ⁻⁶ / °C
Electrical conductivity	28 % IACS
Electrical Resistivity	0.062 ohm mm ² /m

Fabrication Properties

Hot Working Temperature Range	750-870°C
Hot Formability	Fair
Cold Formability	Excellent
Cold Reduction Between Anneals	90%
Machinability rating (free cutting brass = 100)	30 %

Annealing Temp. Range	450-680°C
Stress Relieving Temp. Range	250-350°C

Joining Methods

Soldering	Excellent
Brazing	Excellent
Oxy-acetylene welding	Good
Gas-shielded arc welding	Fair
Resistance welding: Spot and Seam	Fair
Butt	Good

Typical Uses:

The CW501L / CZ106 is used for a variety of components including lamp caps and lamp-holder components, heat exchanger tubes handling fresh clean water, chains, eyelets, fastenings, hinges, locks, fingerplates, fire extinguisher bodies, sugar evaporators and juice heaters in the chemical processing. and a wide variety of deep drawn or spun components and general industrial pressings.

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.