

BRASS

CZ106 - CW505L



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CZ106 (CW505L) brass is a versatile alloy known for its high copper content and good balance of strength, corrosion resistance and machinability. It is widely used in general industrial applications. Its excellent machinability allows for intricate machining operations, while its good corrosion resistance makes it suitable for use in various environmental conditions. CZ106 is favoured for components requiring reliable performance and longevity.

KEY FEATURES

- Good combination of strength and ductility
- Cold forming properties
- Good corrosion resistance
- Excellent soldering and brazing
- Excellent deep drawing capabilities

CHEMICAL PROPERTIES

Copper (Cu)	Lead (Pb)	Nickel (Ni)	Tin (Sn)	Aluminium (Al)	Other Elements	Zinc (Zn)
69-71%	0.5%	0.3%	0.1%	0.02%	0.1%	rest

MECHANICAL PROPERTIES

Tensile strength (N/mm ²)	300-370
Yield strength (N/mm ²)	100-170
Elongation (% at break)	35-50
Hardness - Brinell (HB) tube	90-110
Hardness - Vickers (HV)	100-130

PHYSICAL PROPERTIES

Density (kg/m ³)	8500	
Modulus of elasticity (Gpa)	97-110	
Mean coefficient of thermal expansion	0-100°C (µm/m/°C)	19.5
	0-350°C (µm/m/°C)	22.0
	0-538°C (µm/m/°C)	23.6
Thermal conductivity	at 100°C (W/m.K)	120
	at 500°C (W/m.K)	100
Specific Heat 0-100°C (J/kg.K)	380	
Electrical conductivity (IACS %)	31	
Melting point (°C)	920	

MARKET SECTORS



Electrical Industry

Electrical connectors, terminals, components



Automotive Industry

Radiator cores, heater cores, automotive parts



Heating & Plumbing

Plumbing fittings, valves, components



Marine Equipment

Shipbuilding, marine hardware, offshore equipment



Engineering Components

Gears, bearings, bushings, components



Construction & Architecture

Door and window fittings, decorative elements