

Data Sheet

BASIC BRASS - CZ108/CW508L

CW508L / CZ108 is a 37% zinc containing brass commonly referred to as basis brass. Predominantly an alpha brass it is one of the most popular sheet and plate grades due to its hot and cold working capabilities.

CW508L / CZ108 is often used for general purpose applications and forming operations when very good bending properties are required. It also offers a very good general corrosion resistance in many natural atmospheres, a reasonable machinability and good cold heading properties.

Key Features:	
Good hot and cold forming properties	
Good corrosion resistance	
Very good cold heading attributes	
Good strength properties	
Related Specifications:	
CW508L	CZ108
C27200	CuZn37
Chemical Composition:	
Copper	62.0 - 65.0%
Lead	0.30% max
Zinc	Rem
Others	0.50% max

Typical Uses:

The CW508L / CZ108 is used for a variety of decorative components as well as general components such as heat exchangers, lamp caps, lamp-holder and switch components, general copper-smithing work, chains, eyelets, fasteners, hinges, locks, instrument covers and blanked articles such as instrument plates and wheels. Other uses include cold headed items including pins, rivets, screws, springs, radiator tanks and torch cases.

Typical Physical Properties:	
Melting point	920°C
Density	8.45 g/cm ³
Specific heat	380 J/Kg °K
Thermal conductivity	125 W/m°C
Thermal expansion coefficient (20 - 200°C)	21 x 10 ⁻⁶ per °C
Electrical conductivity	26% IACS
Electrical resistivity	0.066 ohm mm ² /m
Modulus of elasticity	103.4 GPa
Fabrication Properties:	
Hot working temperature range	720 - 820°C
Hot formability	Good
Cold formability	Good
Cold reduction between anneals	65%
Machinability rating (free cutting brass=100)	35%
Annealing temp. Range	450 - 650°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 butt	Fair - Good