

# BRASS

## CZ108 - CW508L



### CZ108 - CW508L

Brass alloy CZ108, also known as CW508L or C27200, is a common alpha brass with good mechanical properties, excellent ductility and good corrosion resistance. Commonly referred to as basis brass, it's composed primarily of copper and zinc, with a high copper content which typically stands around 63%. This composition grants CZ108 excellent ductility and a clean, bright finish, making it ideal for decorative purposes.

#### KEY FEATURES

- Excellent cold workability
- Can be hot formed and hot forged
- Good corrosion resistance
- High ductility
- Excellent soldering and brazing properties

#### CHEMICAL PROPERTIES

Copper (Cu)	Nickel (Ni)	Tin (Sn)	Lead (Pb)	Aluminium (Al)	Other Elements	Zinc (Zn)
<b>62-64%</b>	<b>0.3%</b>	<b>0.1%</b>	<b>0.1%</b>	<b>0.05%</b>	<b>0.2%</b>	<b>rest</b>

#### MECHANICAL PROPERTIES

	Soft	1/2 Hard	Hard
Tensile strength (N/mm <sup>2</sup> )	<b>300-350</b>	<b>350-420</b>	<b>400-480</b>
Yield strength (N/mm <sup>2</sup> )	<b>100-150</b>	<b>200-260</b>	<b>250-320</b>
Elongation (% in 50mm)	<b>40</b>	<b>20</b>	<b>8</b>
Hardness - Brinell (HB) tube	<b>110</b>	<b>110</b>	<b>110</b>
Hardness - Vickers (HV)	<b>70</b>	<b>90-120</b>	<b>130</b>

#### PHYSICAL PROPERTIES

Density (kg/m <sup>3</sup> )		<b>8440</b>
Modulus of elasticity (Gpa)		<b>97</b>
Mean coefficient of thermal expansion	0-100°C (µm/m/°C)	<b>19.2</b>
	0-350°C (µm/m/°C)	<b>21.4</b>
	0-538°C (µm/m/°C)	<b>22.6</b>
Thermal conductivity	at 100°C (W/m.K)	<b>120</b>
	at 500°C (W/m.K)	<b>101</b>
Specific Heat 0-100°C (J/kg.K)		<b>380</b>
Electrical conductivity (IACS %)		<b>31</b>
Melting point (°C)		<b>920</b>

#### MARKET SECTORS



**Heating & Plumbing**

Pipes, fittings, valves, components



**Electrical Industry**

Connectors, terminals, switch gear components, fittings



**Manufacturing & Engineering**

Fasteners, hardware, components, parts



**Automotive Industry**

Radiator cores, fuel line fittings, components



**Marine Equipment**

Marine fittings, hardware, components



**Construction & Architecture**

Decorative fittings, door handles, hardware