

CZ114 is a high tensile brass that is significantly stronger than the conventional free-machining brasses, equalling the strength of many steels whilst still retaining the benefits of copper alloys. The addition of manganese and tin in the material helps to greatly improve corrosion resistance, whilst sufficient lead is present for the machinability to be good.

The properties of CZ114 enable the following uses...

- Architectural use
- High strength components
- Use in process and chemical industries
- Valves and fittings.

CZ114 is available in bars in the following sizes

From 1/4" dia – 6" dia

Chemical & Physical properties

Typical Chemical composition

| <i>Elements</i> | <i>Min %</i> | <i>Max %</i> |
|-----------------|--------------|--------------|
| Al | | 1.5 |
| Cu | 56.5 | 58.5 |
| Fe | 0.3 | 1.0 |
| Mn | 0.5 | 2.0 |
| Pb | 0.5 | 1.5 |
| Sn | 0.2 | 0.8 |
| Zn | Remainder | |

Typical Mechanical Properties

M: As manufactured H: Cold worked, hard

| Property/unit | Condition | Min |
|---|-----------|-----|
| Tensile Strength (N/mm ²) | M | 460 |
| 0.2% Proof Stress (n/mm ²) | M | 270 |
| Elongation in 5.65√Cross Sectional Area % | M | 12 |
| Tensile Strength (n/mm ²) | H | 520 |
| 0.2% Proof Stress (N/mm ²) | H | 290 |
| Elongation in 5.65√Cross Sectional Area % | H | 12 |

Tolerances

Round bar: Above 2.5mm – 3mm + 0-0.04mm
Above 3mm – 6mm + 0-0.05mm
Above 6mm – 10mm + 0-0.06mm
Above 10mm – 18mm + 0-0.07mm
Above 18mm – 30mm + 0-0.08mm
Above 30mm – 50mm + 0-0.16mm
Above 50mm – 80mm + 0-0.19mm

The information above is based on our current knowledge and is given in good faith; however the company will accept no liability in respect of any third party reliance thereon.