

# Brass



The most common grades of brass used are CZ121, CW614N and CuZn39Pb3.

Brasses are alloys of copper and zinc, containing other alloying elements to add to its properties. Lead is commonly added to machining alloys and used frequently on threaded parts. The Lead added is entirely insoluble.

Chemical Content	% by weight
Copper	57 - 60 %
Lead	2.5 - 4%
Zinc	Remainder

## Physical Properties

Density (kg/m <sup>3</sup> )	8470
Melting Point (°C)	875 - 900
Thermal Expansion Coefficient (K <sup>-1</sup> )	2.1 - 2.9 x 10 <sup>-6</sup>
Thermal Conductivity (W/m·K)	120 - 140
Thermal Capacity	380
Tensile Strength (Mpa)	360
Elongation at break	20 - 25%
Elastic Modulus (GPa)	97
Hardness (HV)	> 100
Electrical Conductivity (Ωm)	6.2 x 10 <sup>-8</sup>

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