

**TECHNICAL DATA SHEET**

# Nonferrous alloy type N

**General notes:**

- » **Nickel silver** 65-18 (CuNi18Zn20)
- » copper-nickel-zinc alloy
- » non-magnetizable (100%)
- » soft and elastic
- » all copper alloys resist corrosion by fresh water and steam. Copper nickels provide superior resistance to saltwater corrosion, have high resistance to alkalis and organic acids, but have poor resistance to inorganic acids
- » good cold workability (forming)
- » typical applications include handling of scratch-sensitive parts in electronic, micro-mechanical and jewellery applications

## Composition

Component	Wt.%	Component	Wt.%	Component	Wt.%
<b>Cu</b>	65	<b>Ni</b>	18	<b>Zn</b>	17

## Mechanical properties

State	<b>annealed</b>
Density	<b>8.73 g/cm<sup>3</sup></b>
Hardness, Vickers	<b>200 HV</b>
Tensile strength, ultimate	<b>500-550 MPa</b>
Tensile strength, yield	<b>380-400 MPa</b>
Elongation, break	<b>45%</b>
Modulus of elasticity	<b>125 GPa</b>

## Thermal properties

Coef. of lin. therm expansion	<b>16.2 E-6/°C</b>	20°C-300°C
Thermal conductivity	<b>33 W/(mK)</b>	

## Electrical properties

Resistivity	<b>n/a</b>
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