

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 alkalies 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.% |
|-----------|------|-----------|------|-----------|------|
| Cu | 65 | Ni | 18 | Zn | 17 |

Mechanical properties

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

Thermal properties

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

Electrical properties

Resistivity n/a

This document contains information based on average values as obtained from the results of laboratory tests and observations made on the material. Ideal-tek SA declines all responsibility from an improper use of the product described in this document.