SUNDWIGER
Messingwerk

# Special Alloys
# SD94

| Material Designation | |
|---|---|
| Sundwiger | SD94 |
| DIN-EN Symbol | CuFe2P |
| DIN-EN | CW107C |
| UNS | C19400 |
| JIS | C1940 |

| Nominal Composition (mass content in %) | |
|---|---|
| Cu | Balance |
| Fe | 2.4 |
| Zn | < 0.12 |
| Pb | < 0.03 |
| P | 0.03 |
| Others | < 0.2 |

## About the Alloy

SD94-wire belongs to the low-alloyed copper alloys which exhibit a mean electrical and thermal conductivity.
At the same time SD94, in contrast to copper, is distinguished by a higher strength and a better softening behaviour.

SD94 is very well for cold-forming and due to its physical properties predestined for the use in electronic construction, contact and switching elements.

| Physical Properties* | | |
|---|---|---|
| Electrical conductivity | ≥36,9<br>≥62 | MS/m<br>% IACS |
| Thermal conductivity | 260 | W/(m·K) |
| Thermal expansion coefficient** | 17 | $10^{-6}$/K |
| Density | 8.9 | g/cm³ |
| Modulus of elasticity | 123 | GPa<br>= kN/mm² |

* Reference values at room temperature
** Between 20 and 300 °C

| Mechanical Properties* | |
|---|---|
| Tensile strength in N/mm², soft | 330 - 400 |
| Elongation $A_{100}$ in %, soft | > 30 |
| Tensile strength in N/mm², hard | 500 - 570 |

* Reference values

## Typical Applications

- Conductor and connector wire
- Pins

| Available Dimensions | | |
|---|---|---|
| Round wire | 1.2 - 5 mm in coils | max. 100 kg |
| | 1.8 - 5 mm on stands | max. 1500 kg |
| | 0.5 - 3 mm on reels | max. 1000 kg |

## Your Contact Person

Worldwide


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