



# Alloys

## We produce:

### Pure Copper

Cu-ETP1	Cu-OF
Cu-PHC	Cu-DHP

### Beryllium Copper

BeCu 25	C 17200
BeCu33 – 25	C 17300 (fine turning quality)
BeCu10	C 17500

Rm = soft to hard and pre-tempered

### Phosphor Bronze

CuSn 0.15	C 14415
CuSn 0.3	C 14425
CuSn 2	C 50700
CuSn 4	C 51100
CuSn 5	C 51000
CuSn 6	C 51900
CuSn 8	C 52100

Rm = 400 – 1,100 MPa ( $\Delta$  57000-156000 PSI), also thermic aftertreatment

### Copper Iron

CuFe 2P	C 19400
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Rm = 250 – 600 MPa ( $\Delta$  35500-85000 PSI)  
Electric conductivity approx. 51-59% IACS

### Copper Magnesia

CuMg 0.10	elec. cond. 76-81% IACS Rm = 270-650 MPa ( $\Delta$ 38000-92000 PSI)
CuMg 0.50	elec. cond. 55-62% IACS Rm = 390-850 MPa ( $\Delta$ 55000-121000 PSI)

## Copper-Nickel Alloys

CuNi 3 Si Mg	C 70250
CuNi 9 Sn 2	C 72500
CuNi 44	C 72150

## Nickel Silver

CuNi 12 Zn24	C 75700
CuNi 18 Zn20	C 76400

## Brass, e. g.

CuZn2		CuZn10	C 22000
CuZn15	C 23000	CuZn20	C 24000
CuZn30	C 26000	CuZn33	C 26800
CuZn36	C 27000	CuZn37	C 27200

## Copper Silver

CuAg	elec. cond. 69-77% IACS Rm $\Delta$ 270-650 MPa (38000-92000 PSI)
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## Pure Kickel and Ni-based alloys, e. g. stainless steel

Mat. no.	1. 4301	AISI 304
	1. 4310	AISI 301
	1. 4401	AISI 316
	1. 4571	AISI 316 Ti
	1. 4016	AISI 430 and others

Heat resistant

Mat. no. 2.4816 and others

## Special materials on request

# Surface Conditions

For copper, beryllium copper, phosphor bronze, copper iron, copper magnesia, copper nickel, nickel silver, brass (unplated and electroplated)

Electroplating types:

- pure tin (ROHS/WEEE compliant)
- tin lead 95/5 or 60/40
- silver-plated - copper-plated - nickel-plated

Tin surface finish:

- matt - reflowed - bright tin

Underplating:

- Copper - Nickel

## Advanced Tin™ Barrier

Advantage: the contact characteristics are more durable with the same tin layer thickness

- improved and higher brazeability
- reduced friction corroding

For comparable characteristics, the tin layer can be reduced

- lower flaking and chip formation
- lower insertion forces

# Conditionings

## Flat wire, square wire and shaped wire:

On spools SD 300K	max. 20kgs /spool
On spools K 355	max. 50kgs /spool
On spools K 500	max. 100kgs /spool
On spools VM 710	max. 150kgs /spool
On reels SH 390	max. 20kgs /reel
On reels SH 460	max. 50kgs /reel
On wooden spools S02	max. 100 kgs /spool
On wooden spools 710	max. 200kgs /spool
Other spool sizes on request	

Round wire additionally in ring / coil form

Inner diameter of ring:  $\varnothing$  320 mm,  $\varnothing$  495 mm

## Cross-sectional forms and dimensions

### Round wire ●

Ø 0.10 – 4.00 mm

Very close tolerances

### Flat wire ■

Thickness min. 0.06 mm  
max. 2.50 mm

Width: min. 0.25 mm  
max. 6.50 mm

Very close tolerances

### Edge configuration:

- Natural formed edges (bigger width tolerance)
- 2 straight edges with 4 corner radii left
- controlled geometric radii
- knurled edges or surfaces, optionally with knurling not being opposite which is reducing the risk of breakage

### Straightness:

- standard: max. 10 mm/m
- special straightening below 5 mm/m (only unplated wires)

### Square wire ■

- for
- Electronics
  - Automotive industry
  - Spring manufacturers
  - Medical devices
  - Metal mesh
  - and many more

### Speciality: square wire for connectors

Dimensions: min. 0.18 x 0.18 mm  
max. 3.00 x 3.00 mm

Closest tolerances for dimension, tensile strength or Vickers hardness (VH)  
Outstanding surface and electropolishing conditions.  
Ultrasonic cleaning (on request)

According to your specifications: corner radius, diagonal dimension, grain size

Optional: knurling

Exact spooling "lane by lane" of the perfectly pre-straightened wire.

### Shaped wire ☺

We produce wire of different shapes.  
Please send us your enquiries including drawings.

## Technical assistance

Incurring costs resultant from unnecessary detours can be avoided. If you need assistance concerning the choice of alloy, please ask for our technical advice. Our staff has extensive, in-depth knowledge based on years of experience. We offer our assistance without any costs and commitment on your part.

On top of this, with small test quantities of wire we can help to make your business successful.

Remember,  
rst supplies more than just wire!

For latest information, please visit our homepage.

      

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