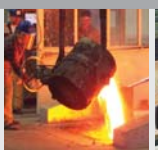
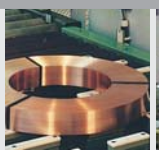
# Strips made of copper and copper alloys

Time after time consistent quality

KEMPER

# KEMPER Strips

**Technology that guarantees your precision.**

## Supreme demands on casting and rolling technology

We produce strips in the highest precision for you in thicknesses from 0.1 to 3 mm and widths from 3 to 330 mm. KEMPER fulfils your high metal demands.
Whether a question of constant mechanical stress, movement, continuous duty or heavy temperature fluctuations, you make the right choice with semi-finished products from KEMPER.

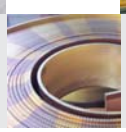
## High Performance

Over 70 % of the strips produced at KEMPER are used for automotive, communication and electronic applications worldwide. Because of the high-tech demands of these industries, KEMPER is continually called upon to develop new and optimized special alloys and finishing techniques.

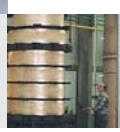
# KEMPER specializes in the production of cold-rolled co

**Starting from the basis material copper we offer all essential casting- and machining procedur**
**Modern machining capabilities and process control guarantee the high quality standard of our**

## Casting



## Rolling



In our highly modern foundry we manufacture material for 15,000 tons semi-finished products per year. We deliver bronze, bronzes with zinc content, copper, copper-iron, nickel-silver, copper-nickel-silicon and other special alloys. We supply to customers throughout the world.

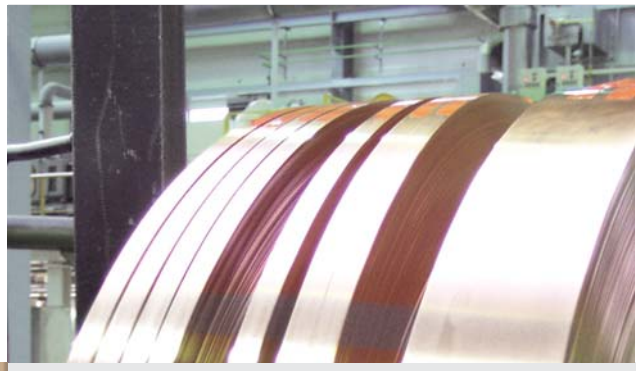
Our rolls are fitted out with the latest measuring and control equipment, allowing the production of strips with the tightest possible tolerances.

# opper and copper alloy precision strips.

**res for copper alloys.**
**complete product range.**

## Annealing

Our elaborate annealing processes produce a homogeneous microstructure that is the basis for the constant strip properties.
We are equipped with bell annealing and continuous strand annealing furnaces which are used according to the respective strip material requirements.



## Finishing

The extraordinary diversity of our machining and coating capabilities will impress you. We have every possibility of tinning, annealing and profiling available in our finishing facilities, as well as special forms of supply such as drums and POLYCOILs, for example.

# KEMPER Strips: product range

## Dimensions, Forms of supply

### Dimensions

- Thickness 0.1 - 0.3 mm, width 3 - 310 m
- Thickness > 0.3 - 3 mm, width 3 - 330 mm

### Forms of supply

- Coils up to 12 kg/mm strip width (depending on dimensions and alloy), however max. coil weight 4.000 kg
- Traverse wound onto drums, cores (up to max. 1.800 kg drum weight depending on strip dimensions and type)
- POLYCOIL up to 3.000 kg

POLYCOIL

## Special finishes

- Profiled / skived to your drawings
- Surface
  - Hot-dip tinning, lead-free
    - Plating thickness range

| | |
|---|---|
| 0.8-2 µm<br>1-3 µm | reduction of plug and pull forces |
| 2-4 µm<br>3-6 µm | optimum corrosion-resistance |
| 4-8 µm<br>5-10 µm | good soldering properties |

  - Thermic tin (IMP)
  - Electroplating
    - Tin, incl. and excl. reflow
    - Gold
    - Silver
    - Nickel

## Surface technique: Hot-dip tinning

We supply high-quality lead-free hot-dip tinning which exactly meets the plating thickness range.

- Excellent adhesion of the tin coating to the base material
- Exclusion of whisker formation
- Good solderability
- Reduction of plug and pull forces
- Optimum surface protection
- High productivity

# KEMPER Quality Management

**Quality which produces satisfaction.**
**We carry out 100 percent checks - 100 percent of the time.**

Our products are tested, evaluated and subjected to stringent tests in every stage of our production processes. KEMPER strips meet the highest technical requirements of the automotive, communications and electrical engineering industries worldwide. A certified Quality Management System guarantees these standards according to ISO/TS 16949:2002 and DIN EN ISO 9001:2000. At KEMPER quality is an obligation for all our employees, resulting in products on which you can lastingly rely.

KEMPER

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