

Types of delivery of Resistance Alloys

- We supply bright wires according to DIN 46460, part 1, the dimensions and resistance values are standardized according to DIN 60317.
- Generally applicable for the linear resistance is a tolerance of $\pm 5\%$ from the nominal value, for thin wires and low-resistance alloys up to $\pm 10\%$.
- Within a length of wire the maximum tolerance is about $\pm 1\%$ of the specified resistance per meter.
- For oxidized wires the technical delivery conditions are summarized in DIN 46464.
- Due to an oxide layer, insulated wires can be used up to the maximum working temperature of the bright wire. The electrical flash-over voltage for the alloy ISOTAN® is over 10 V, for the nickel-chromium alloys ISA®-CHROM 80 and ISA®-CHROM 60 at over 3 V.
- For enameled wires braided with silk the delivery conditions according to DIN 60317 are applicable.
- We enamel wires with a so-called solderable enamel (type V); these wires can be tinned directly, if the wire alloy permits this. As an option, a high temperature resistant enamel (type W 200) is available, that can be used up to 200 °C, for short periods even at higher temperatures. Depending on the dimension, for both types of enamel the electrical flash-over voltage is 700 V to over 2,500 V.
- In addition it is possible for us to braid wires with synthetic, natural or glass silk or to manufacture a combination of enamel and silk insulation.
- Flat wires made from resistance alloys are standardized according to DIN 46465.
- For bands and sheets made from resistance alloys, there is no explicit standard for dimensional tolerances. Here we apply deviations permitted according to DIN 13599 for the thickness and width tolerance for copper and wrought copper alloys.
- For strands made from resistance wires the technical specifications are to be determined according to the individual case. If heating cables are used, under certain circumstances the provisions according to VDE 0253 are to be observed. On request special tolerances can be agreed.