

RESISTAN[®]

Copper alloys for resistors

The Wieland Group with headquarters in Ulm, Germany, is one of the world's leading manufacturers of semi-finished and special products in copper and copper alloys.

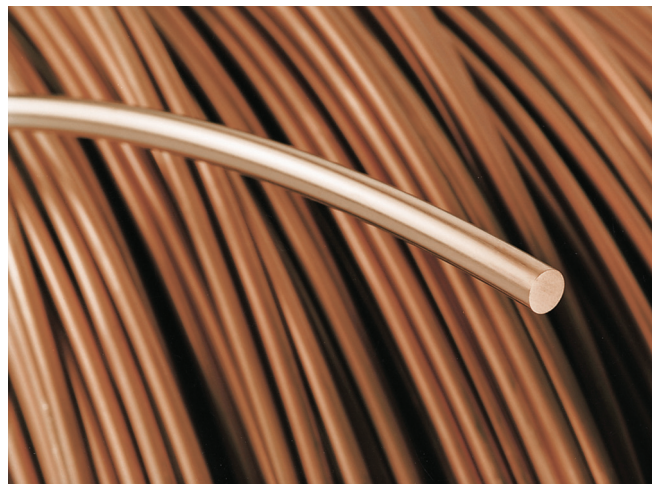
Copper-base resistance alloys have become increasingly important. In order to participate in this development Wieland has started to produce such alloys. They are marketed under the brand name RESISTAN[®].

- F12 (CuMn12Ni) is characterized by its low temperature coefficient of the electrical resistance and its low thermal EMF against copper. The electrical resistance of F12 remains constant over a long period of time. The alloy is suitable for the manufacture of precision, standard and shunt resistors.
- FX9 (CuZn15Mn15Al) is characterized by a temperature coefficient that remains constant in the range between 0 and 100 °C. FX9 is a low-cost alternative to F12 if thermal EMF against copper is of secondary importance.
- Additional materials are available on request.

Delivery form	Outside diameter		Wall thickness		Diameter of circumscribing circle		diameter/width a/fl.	
	from	to	from	to	from	to	from	to
Round tubes	on request							
Sectional tubes								
Sections								
Round and polygonal rods								
Round wire								
Polygonal wire								

* Flat wire is available with a min. thickness of 0.3 mm and a max. width of 20 mm. The width:thickness ratio must be smaller than 10:1.

Detailed information on individual alloys is provided in our data sheets.





Intelligent battery terminal



Digital kWh metre

Please contact:

Timo Allmendinger
Technical Marketing
Extruded and Drawn Products
Telefon +49 731 944 2850
timo.allmendinger@wieland.de

Wieland-Werke AG

www.wieland.com

Graf-Arco-Str. 36, 89079 Ulm, Germany, Phone +49 731 944 0, Fax +49 731 944 2879, info@wieland.de

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