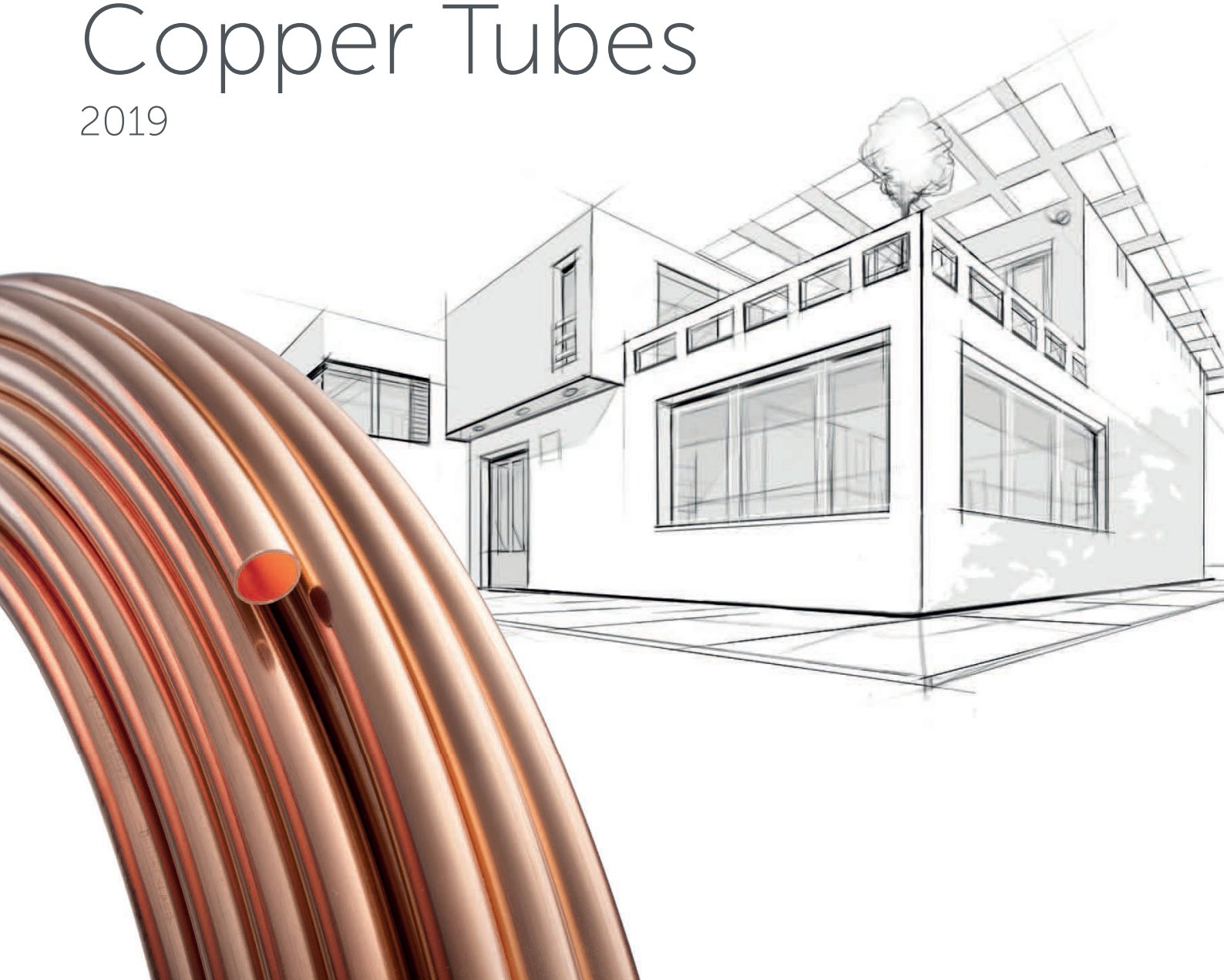
wieland

Plumbing, Heating, ACR and Medical Copper Tubes

2019



Copper

Copper is the shining reddish metal known by the Romans as aes cyprium (ore from Cyprus). However, copper has been known long before the Romans gave it this name. As a natural resource it is valuable in every form, be it as a vital trace element in the human body or a mineral found in the Earth's crust.

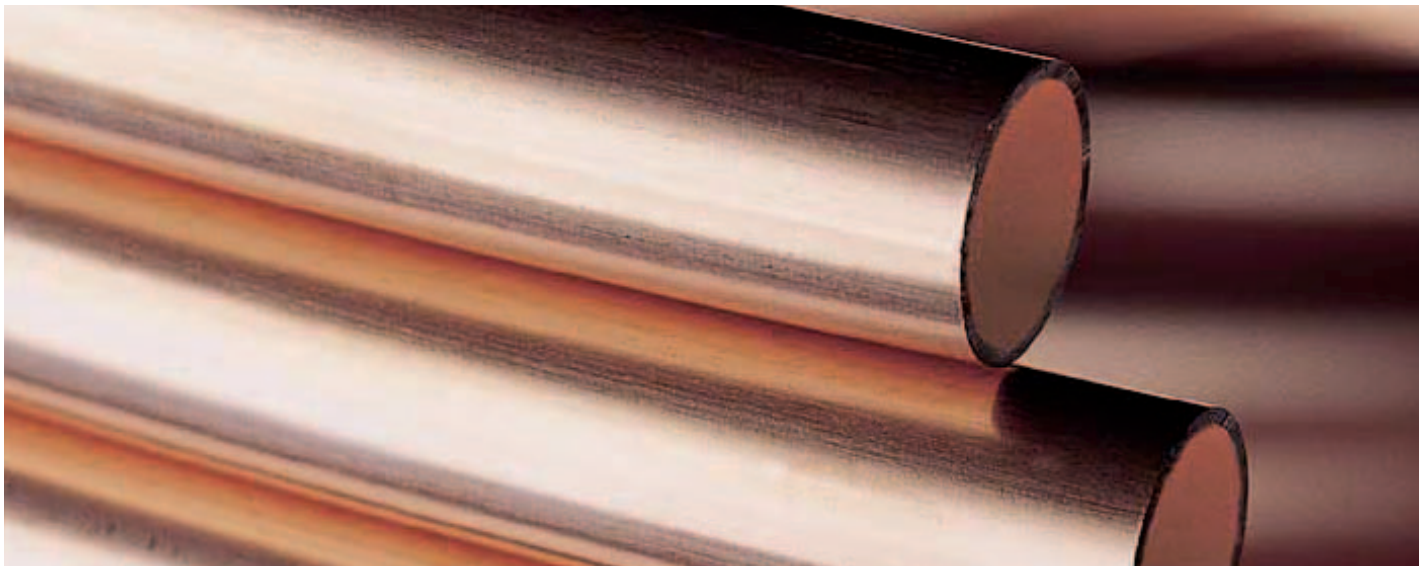
Over the centuries, man has discovered the many advantages of copper and its alloys, notably its excellent forming properties, strength, thermal and electrical conductivity. Copper has proved itself to be one of the most important worked metals in modern times.

Copper is a unique material for ecologically sustainable developments and is 100 percent recyclable. More than half of today's raw copper is already produced by reusing returned material.

Copper tubes

- are resistant to ageing and retain their properties
- e.g. pressure resistance and elasticity
- are gas- and diffusion-tight
- are subject to minimal thermal expansion
- exhibit good mechanical resistance
- are easy to install
- can be connected by a variety of techniques, which have
- proven over generations
- are not affected by temperature fluctuations
- are suitable for all domestic plumbing applications
- are readily available in all common sizes

The requirements to be satisfied by copper tubes for domestic plumbing systems are clearly specified in a single standard: EN 1057.



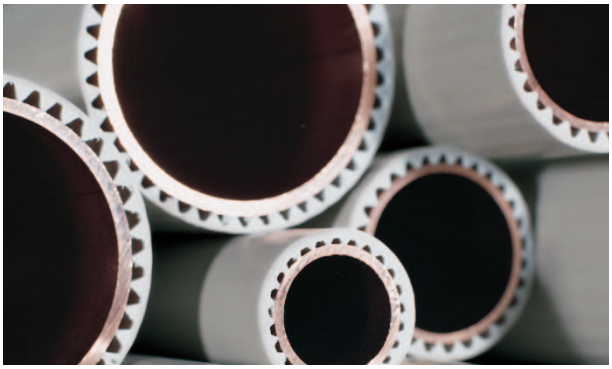
WICU®

WICU – System solutions

The WICU system consists of Wieland copper tubes equipped, thermal or noise insulation.

WICU tube

WICU tubes have a mill-applied protective coating. They are therefore suitable for concealed installation under plaster or in environments with an aggressive atmosphere, and for installation outdoors, either above or below ground.



Applications:

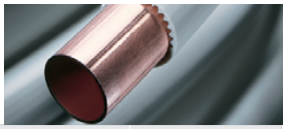
- Domestic hot and cold water supply
- Central heating systems
- Gas services for heating/cooking
- Liquefied gas
- Oil services for heating
- Rainwater
- Compressed air

Technical properties:

- The tubes conform to EN 1057 and are quality assured
- Protective coating conforms to EN 13349
- External protection: DIN 30672-1
- Fire resistance conforms to EN 13501-1-E
- Colour of coating: light grey
- Temperature range: up to 100 °C operating temperature

WICU®

WICU - Coils

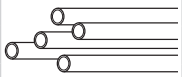


- Temper: **hard R290**
- packed in cartons / wrapped in plastic film

Tube	Dimension mm	Delivery form coils 50 m	Delivery form coils 25 m	Operating pressure* bar	Total outside diameter mm	Water content l/m	Tube length per liter m/l
	6 x 1.0	•		194	10	0.013	79.58
	8 x 1.0	•		139	12	0.028	35.37
	10 x 1.0	•	•	109	14	0.050	19.89
	12 x 1.0	•	•	89	16	0.079	12.73
	14 x 1.0	•	•	76	18	0.113	8.84
	15 x 1.0	•	•	70	19	0.133	7.53
	16 x 1.0	•	•	66	20	0.154	6.50
	18 x 1.0	•	•	57	23	0.201	4.97
	22 x 1.0		•	46	27	0.314	3.18
	22 x 1.1		•	51	27	0.308	3.25

WICU - Straight lengths

- Temper: **hard R290**
- packed in cartons / wrapped in plastic film

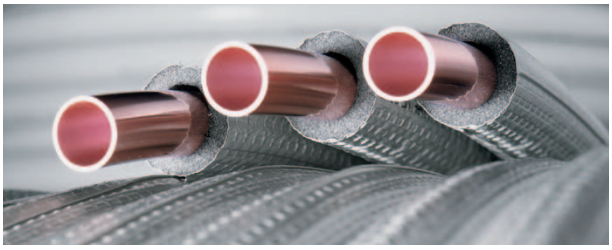
Tube	Dimension mm	Delivery form SL 5 m	Operating pressure* bar	Total outside diameter mm	Water content l/m	Tube length per liter m/l
	12 x 1.0	•	89	16	0.079	12.73
	14 x 1.0	•	76	18	0.113	8.84
	15 x 1.0	•	70	19	0.133	7.53
	16 x 1.0	•	66	20	0.154	6.50
	18 x 1.0	•	57	23	0.201	4.97
	22 x 1.0	•	46	27	0.314	3.18
	22 x 1.1	•	51	27	0.308	3.25
	28 x 1.0	•	36	33	0.531	1.88
	28 x 1.2	•	43	33	0.515	1.94
	35 x 1.2	•	34	40	0.835	1.20
	42 x 1.2	•	28	48	1.232	0.81
	54 x 1.5	•	28	60	2.043	0.49

** Calculated with 3.5 times safety coefficient on the basis of soft copper tubes with R m 200 N/mm² at an operating temperature of 100 °C*

WICU®

WICU Flex

WICU Flex is a plumbing tube with a flexible coating for rapid installation. The coating consists of closed-cell PE foam covered by a structured protective film. WICU Flex is supplied in coils for rapid connection to manifolds, etc and for underfloor installations.



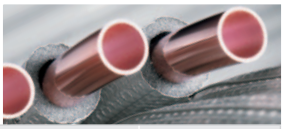
Applications:

- Connecting tubes
- Domestic hot and cold water supply
- Central heating systems

Technical properties:

- The tubes conform to EN 1057 and are quality assured
- Insulation reduces the heat loss of the tube by up to 80 %
- Thermal conductivity of the insulation layer λ = 0.040 W/mK (40 °C)
- Fire resistance conforms to EN 13501-1-E
- Colour of coating: light grey

WICU FLEX in coils 25 m and 50 m



- Temper: **soft annealed**

Tube	Dimension mm	Delivery form coils 50 m	Delivery form coils 25 m	Operating pressure* bar	Total outside diameter mm	Nominal copper weight l/m	Water content l/m	Tube length per liter m/l
	12 x 1.0	•	•	89	24	0.308	0.079	12.73
	14 x 1.0	•	•	76	26	0.363	0.113	8.84
	15 x 1.0	•	•	70	27	0.391	0.133	7.53
	16 x 1.0	•	•	66	28	0.419	0.154	6.50
	18 x 1.0	•	•	57	30	0.475	0.201	4.97
	22 x 1.0		•	46	34	0.587	0.314	3.18

The Wieland Group

The Wieland Group, with headquarters in Ulm, is one of the world's leading manufacturers of semi-finished and special products in copper and copper alloys, such as strip, sheet, tubes, rods, wires and sections. Special products include slide bearings, finned tubes and heat exchangers.

As an international company, Wieland has manufacturing companies, slitting centres and trading companies in many European countries as well as in the USA, in South Africa, Singapore, China and India. The global workforce of the Wieland Group is approx. 6,700 strong of which 4,300 are employed in Germany. The domestic plants (Wieland-Werke AG) are located in Ulm, Velbert-Langenberg, Villingen-Schwenningen and Vöhringen/Iller.

Wieland supplies customers in numerous markets with over 100 different copper alloys which are primarily used in the electrical and electronic industry. Other important sectors are the construction, automotive as well as the air conditioning and refrigeration industries. Wieland materials are used in a variety of everyday products such as contacts in electrical sockets, drinking water and heating pipes, door locks, slide bearings for engines, refrigeration units for cold stores and air conditioning units. Our materials also prove to be indispensable for high-tech applications in computer and telecommunications technologies.

Vöhringen plant – production location for copper plumbing tubes

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