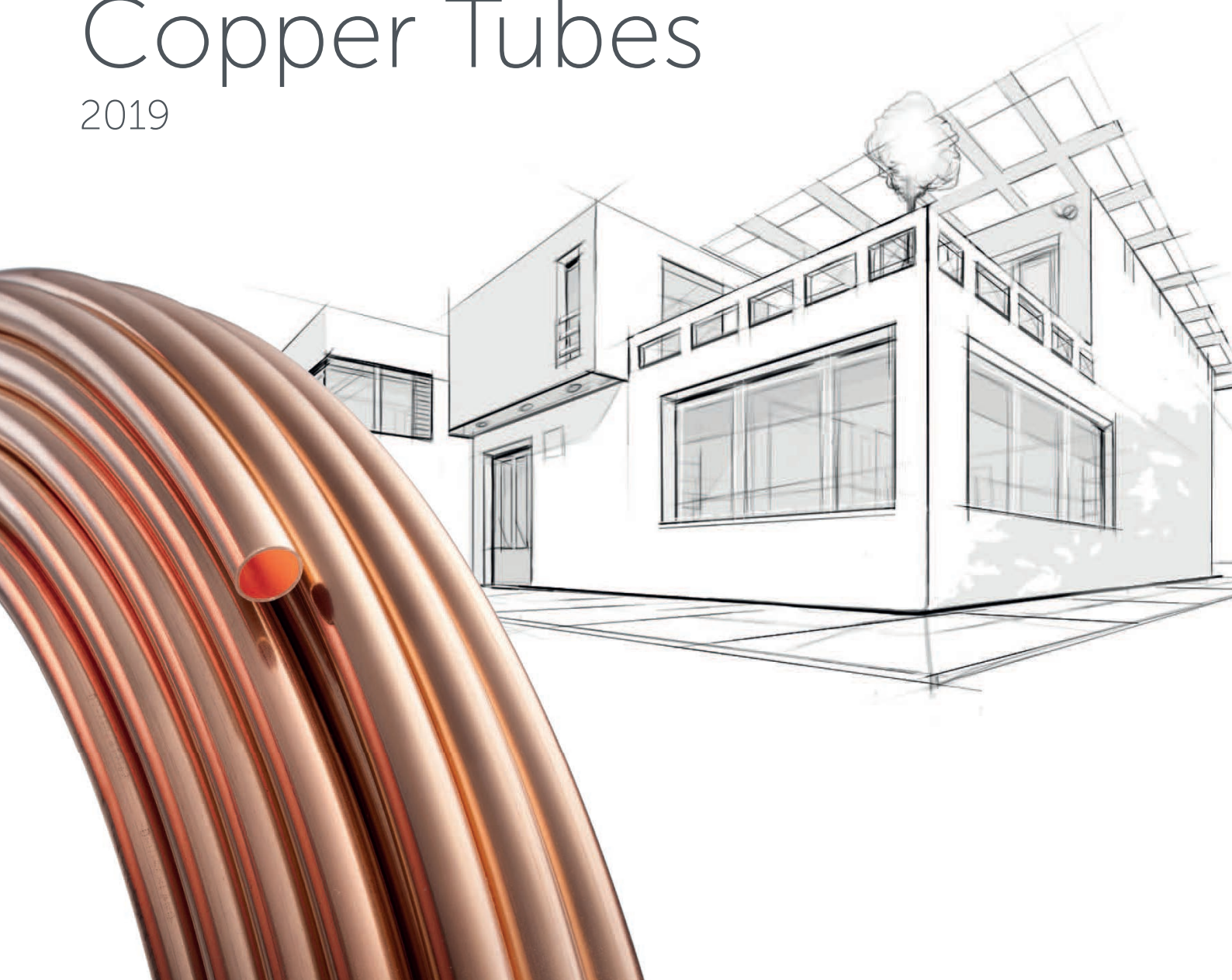


# Plumbing, Heating, ACR and Medical Copper Tubes

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.

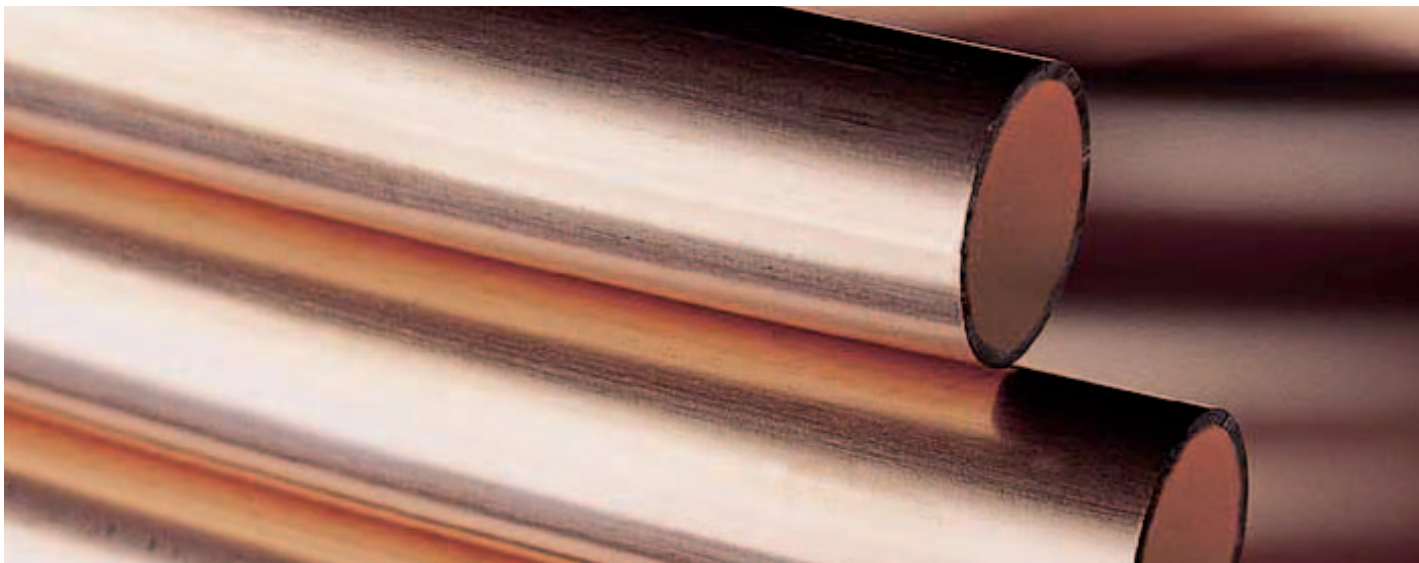
Over the centuries, man has discovered the many advantages of copper and its alloys, notably its excellent forming properties, strength, thermal and electrical conductivity. Copper has proved itself to be one of the most important worked metals in modern times.

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.

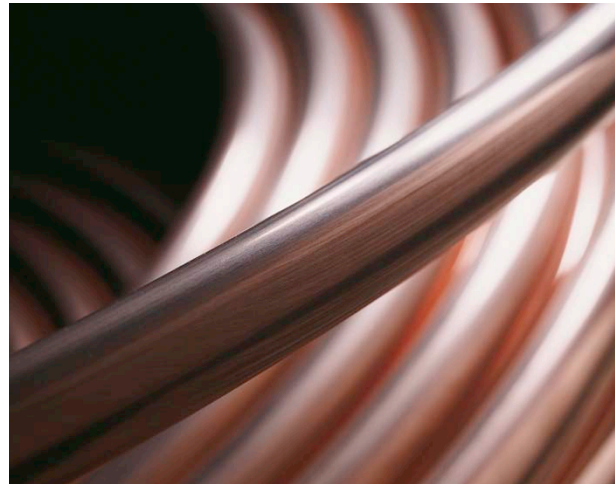


## SANCO plumbing tubes

Thanks to the patented production process, SANCO copper tubes are superior to the requirements defined in applicable standards and regulations.

The universal plumbing tube is subjected to continuous quality control and is constantly available in the full range of dimensions from 6 to 267 mm.

SANCO tubes are seamless drawn plumbing tubes consisting of pure deoxidised copper (Cu-DHP) of a quality standard that comfortably satisfies all contemporary requirements.



### Applications:

- | Domestic hot and cold water supply
- | Heating systems
- | Gas services for heating/cooking
- | Liquefied gas
- | Oil services for heating
- | Solar heat installations
- | Industrial compressed air
- | Sprinkler systems
- | Fire-fighting water pipes

### Product range:

- | EN 1057 from stock Ø 6 to 267
- | ASTM B88 on demand ¼" to 11"
- | Soft, half-hard and hard temper
- | Straight length and soft coils
- | Tube bundled and marked
- | Wide range of certifications available, such as Kitemark, Afnor, KIWA, DVGW and many others

### Technical properties:

- | The patented production process means that the specifications of SANCO tubes are far superior to the requirements defined in applicable standards and regulations.
- | Universal use in a range of finely differentiated dimensions.
- | Optimal availability and compatibility with a wide range of fittings.
- | Maximum operating temperature: 250 °C (check maximum operating pressure if temperature exceeds 100 °C)
- | Fire resistance: DIN 4102-A1 (non-flammable)

SANCO tubes offer all the benefits associated with copper tubes plus excellent safety.


SANCO is Europe's No. 1 copper plumbing tube today.

## SANCO - Coils

| Temper: **soft annealed**

| Delivery forms available ex stock. Further dimensions available e.g. ASTM ¼" to ⅞"



Tube	Dimension	Delivery form coils		Operating pressure* bar	Nominal weight kg/m	Water content l/m	Tube length per litre m/l	
	mm	50 m	25 m					
	6 x 1.0	•		194	0.140	0.013	79.58	
	8 x 1.0	•		139	0.196	0.028	35.37	
	10 x 1.0	•		109	0.252	0.050	19.89	
	12 x 1.0	•		89	0.308	0.079	12.73	
	15 x 1.0	•		70	0.391	0.133	7.53	
	18 x 1.0			•	57	0.475	0.201	4.97
	22 x 1.0			•	46	0.587	0.314	3.18

\* Calculated with 3.5 times safety coefficient on the basis of soft copper tubes with Rm 200 N/mm<sup>2</sup> at an operating temperature of 100 °C

hh = half-hard straight lengths R 250

h = hard drawn straight lengths R 290

## SANCO - Straight lengths

| Temper: **hard** or **half-hard**

| Dimensions ex stock, many further sizes available e.g. UK table X/Y, ASTM ¼" to 11"



Tube	Dimension mm	Temper	Operating pressure* bar	Nominal weight kg/m	Water content l/m	Tube length per litre m/l
	6 x 1.0	h, hh	194	0.140	0.013	79.58
	8 x 1.0	h, hh	139	0.196	0.028	35.37
	10 x 1.0	h, hh	109	0.252	0.050	19.89
	12 x 1.0	h, hh	89	0.308	0.079	12.73
	14 x 1.0	h, hh	76	0.363	0.113	8.84
	15 x 1.0	h, hh	70	0.391	0.133	7.53
	15 x 1.5	h	109	0.566	0.113	8.84
	16 x 1.0	h, hh	66	0.419	0.154	6.50
	18 x 1.0	h, hh	57	0.475	0.201	4.97
	18 x 1.5	h	87	0.692	0.177	5.66
	22 x 1.0	h, hh	46	0.587	0.314	3.18
	22 x 1.1	hh	51	0.643	0.308	3.25
	22 x 1.5	h, hh	70	0.860	0.284	3.53
	28 x 1.0	h, hh	36	0.756	0.531	1.88
	28 x 1.2	hh	43	0.899	0.515	1.94
	28 x 1.5	h, hh	54	1.110	0.491	2.04
	35 x 1.0	h	28	0.951	0.855	1.17
	35 x 1.2	h	34	1.134	0.835	1.20
	35 x 1.5	h	43	1.410	0.804	1.24

\* Calculated with 3.5 times safety coefficient on the basis of soft copper tubes with Rm 200 N/mm<sup>2</sup> at an operating temperature of 100 °C

hh = half-hard straight lengths R 250

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## SANCO - Straight lengths

| Temper: **hard** or **half-hard**

| Dimensions ex stock, many further sizes available e.g. UK table X/Y, ASTM ¼" to 11"



Tube	Dimension mm	Tempers	Operating pressure* bar	Nominal weight kg/m	Water content l/m	Tube length per litre m/l
	42 x 1.0	h	26	1.146	1.257	0.80
	42 x 1.2	h	28	1.369	1.232	0.81
	42 x 1.5	h	36	1.700	1.195	0.84
	54 x 1.0	h	18	1.482	2.124	0.47
	54 x 1.2	h	22	1.772	2.091	0.48
	54 x 1.5	h	28	2.202	2.043	0.49
	54 x 2.0	h	37	2.910	1.963	0.51
	64 x 2.0	h	31	3.467	2.827	0.35
	76.1 x 2.0	h	26	4.144	4.083	0.24
	88.9 x 2.0	h	22	4.855	5.661	0.18
	108 x 2.5	h	23	7.374	8.332	0.12
	133 x 3.0	h	22	10.904	12.668	0.08
	159 x 3.0	h	19	13.085	18.385	0.05
	219 x 3.0	h	13	18.118	35.633	0.03
267 x 3.0	h	11	22.144	53.502	0.02	

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hh = half-hard straight lengths R 250

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## 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*

**wieland**

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