

# Plumbing Tubes

## Product Range

KME Germany GmbH & Co. KG  
Plumbing Tubes  
[GB]





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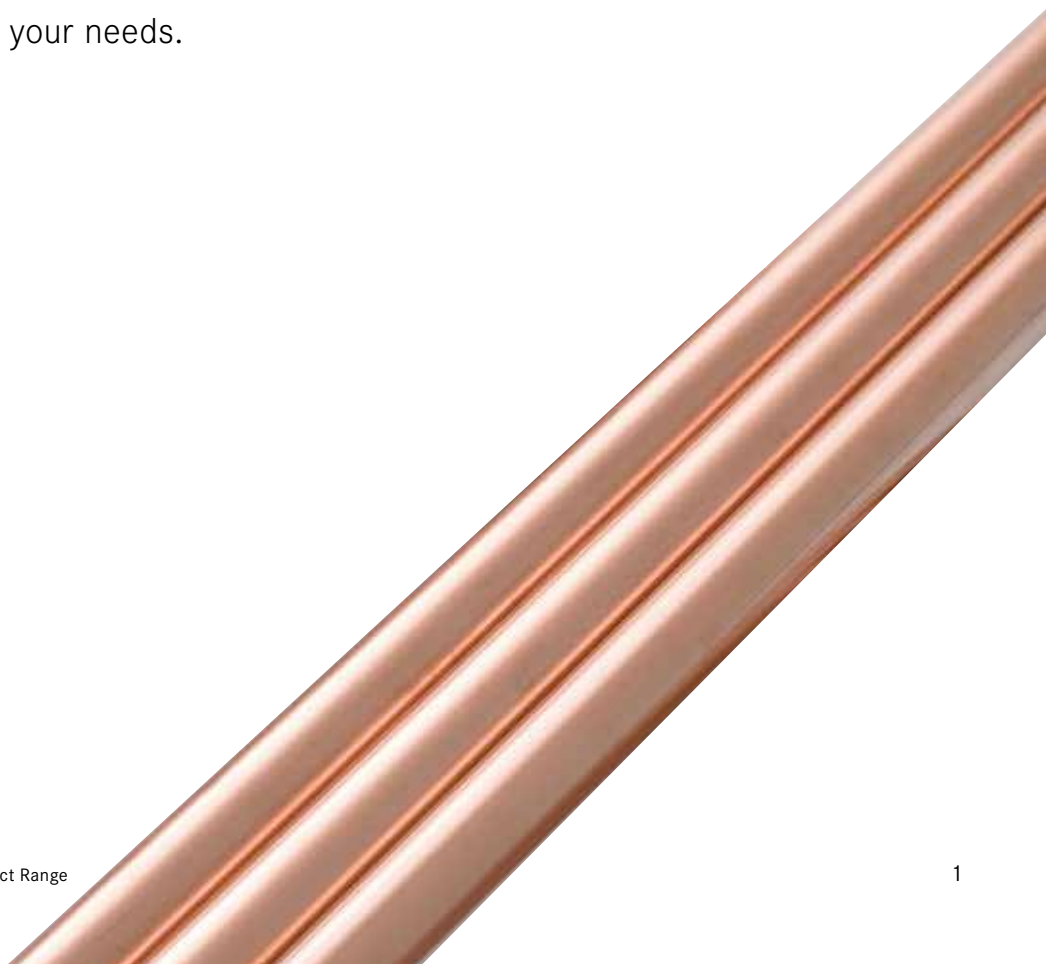
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# KME Plumbing Tubes – the best copper tube for every application



The Plumbing Tubes Division (domestic plumbing tubes and systems) manufactures copper and copper alloy tubes for domestic applications. The tubes are pressed and seamlessly extruded.

KME copper tubes are manufactured to the highest quality standards in various designs. The high-quality brand name copper tubes for domestic plumbing are of optimal quality and are suitable for all domestic plumbing applications. KME has the best brand name copper tube for all your needs.





With production facilities in Germany, France, Italy, the UK, Spain and China, KME is one of the world's leading manufacturers of semi-finished goods and copper and copper alloy products. A large part of the copper products for the construction industry is designed for the domestic plumbing industry. KME has a wide range of specially designed and finished tubes for all domestic plumbing applications. KME's product and system solutions fulfil all quality standards, and are reliable and easy to assemble. This, combined with an extensive range of services, makes KME a competent partner for all its customers.





## **KME Plumbing Tubes – the best copper tube for every application**



## **KME Plumbing Tubes – Applications**

	SANCO®	COPATIN®	WICU®	WICU® Eco	WICU® Flex	WICU® Frio/ WICU® Clim	cuprotherm®	Qttec®	cuprotherm® PLAN
Plumbing	●	●	●	●	●	○	○	●	○
Heating water	●	●	●	●	●	○	●	●	●
Gas	●	●	●	○	○	○	○	○	○
Liquefied gas	●	○	●	○	○	○	○	○	○
Oil	●	○	●	○	○	○	○	○	○
Rainwater	●	●	●	○	○	○	○	●	○
Solar	●	●	○	●	○	○	○	○	○
Sprinkler	●	●	●	○	○	○	○	○	○
Extinguishing water	●	●	●	○	○	○	○	○	○
Refrigeration	○	○	○	○	○	●	○	○	○

For decades, copper and copper alloys have been considered the ideal raw material for domestic plumbing. Longevity, versatility and unsurpassed ease of processing set copper apart from other raw material options for plumbing tubes. Environmental protection comes as an added bonus. Offcuts can be fully recycled which means that you have no disposal problems. Copper tubes can be used in virtually every domestic plumbing application: hot and cold domestic water, water in heating systems, oil, gas and liquefied gas, rainwater and in solar power systems.

Copper also plays a key role in many other domestic applications. We take electricity supply, air-conditioning, refrigeration and telecommunications as a matter of course these days – but the high standards we have come to expect are, to a great extent, thanks to the consistent use of this versatile material. Copper roofs, roof drainage and façade systems are very popular with house owners and architects alike because of their quality and visual appearance. Copper has become a very important material in the course of technological development. Its key role is uncontested in domestic plumbing, as indeed in all other areas of modern life.



#### **Brand name copper tubes from KME**

- are suitable for all domestic plumbing applications
- are utilised almost completely; offcuts are fully recyclable
- are gas and diffusion proof
- have low thermal linear expansion
- are resistant to high levels of mechanical stress
- can be processed in all weather and at all temperatures
- are easy to bend
- can be used with all conventional processing and connection techniques
- can be used without restriction regardless of the operating temperatures in domestic plumbing systems
- can be completely used without waste, are always available on stock and easy to procure



*Copper can be used in all domestic plumbing applications.*







# SANCO®

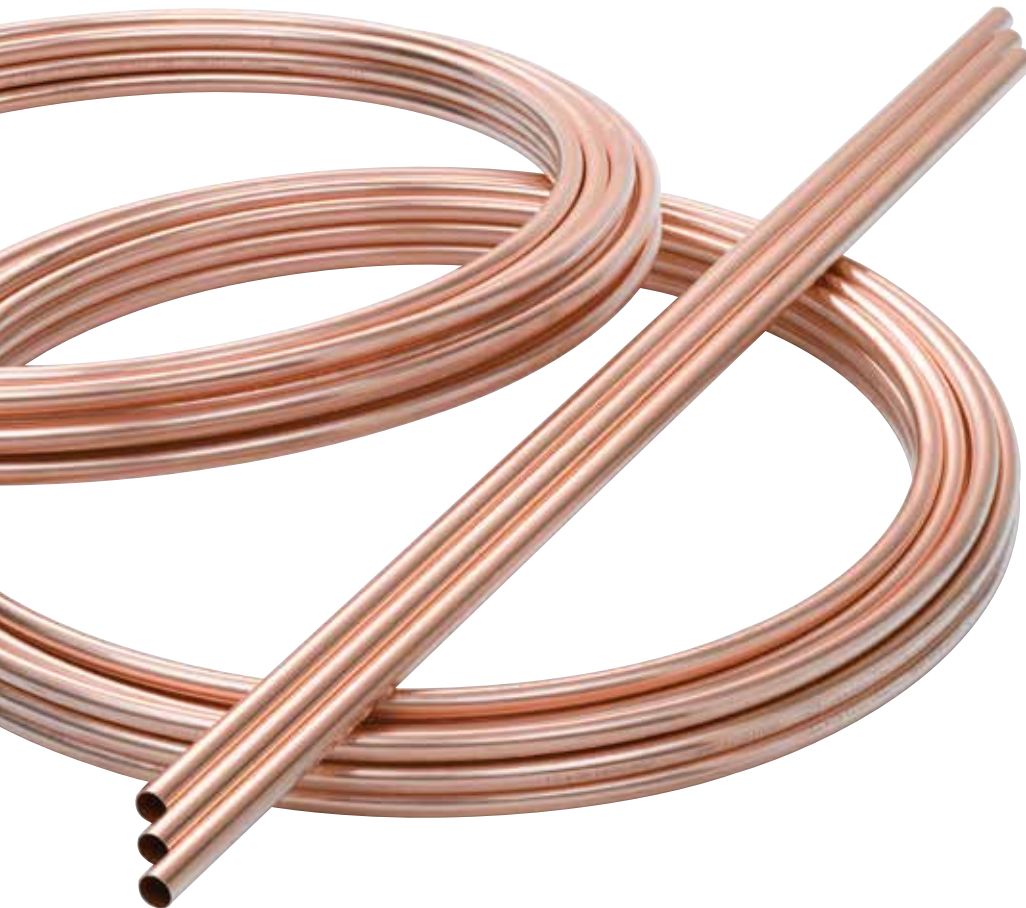
Once you've used SANCO®,  
you'll never use anything else.

SANCO® plumbing tubes are made from high-quality copper with a purity grade of at least 99.9%. They are manufactured using a patented process to give the tubes extreme durability and longevity. Our soft, half-hard and hard copper tubes can be used in all areas of domestic plumbing. SANCO® is Europe's leading bright copper plumbing tube.

#### Product benefits

- One range of tube products covers all areas of application.
- Standard and reliable installation in domestic heating and plumbing systems.
- Compatible with fittings from many different manufacturers.
- No material ageing.
- Gas-proof, impervious to oxygen diffusion and UV-resistant.
- Higher quality standard than prescribed in standards and regulations.
- Every single metre can be processed. Tube offcuts can be fully recycled, so that waste and disposal problems do not arise in the first place.

*In Germany and in parts of some neighbouring countries SANCO® tubes are plugged.*





KME SANCO® HALBHART

### SANCO® in detail

Applications	Connection techniques	Dimensions	Strengths
<ul style="list-style-type: none"><li>• Plumbing</li><li>• Heating</li><li>• Gas</li><li>• Liquefied gas</li><li>• Oil</li><li>• Rainwater</li><li>• Solar</li><li>• Sprinkler</li><li>• Extinguishing water</li></ul>	<ul style="list-style-type: none"><li>• Soldering</li><li>• Brazing</li><li>• Pressing</li><li>• Welding</li><li>• Clamping</li><li>• Insertion</li></ul>	<ul style="list-style-type: none"><li>• Straight lengths (5 m) 6 x 1.0 – 267 x 3.0 mm</li><li>• Coils 6 x 1.0 – 22 x 1.0 mm</li></ul>	<ul style="list-style-type: none"><li>• soft</li><li>• half-hard</li><li>• hard</li></ul>

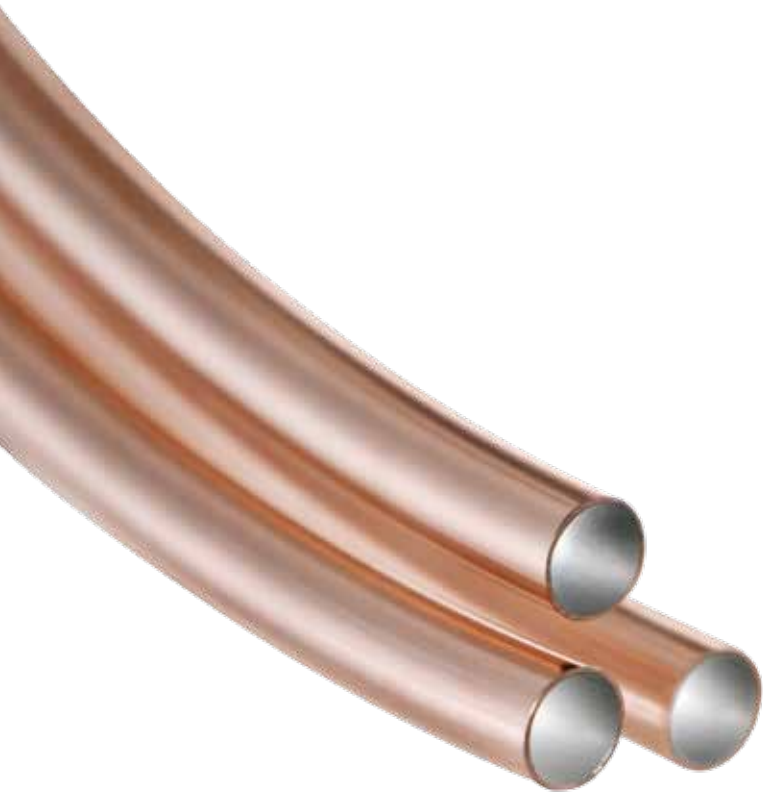
# COPATIN®

## The drinking water tube with internal tin plating

COPATIN® is our seamlessly extruded copper tube with internal tin plating for drinking water. The tube is given a high-quality tin plating using a special KME process. This makes it suitable for all drinking water. COPATIN® tubes are diffusion-proof, UV resistant, age-proof and can withstand high levels of mechanical stress. The tin plating guarantees constant drinking water quality at the tap and ensures excellent corrosion protection. Drinking water analyses are not required when COPATIN® tubes are used.

### **The brand name copper tube with internal tin plating from KME is**

- universal: suitable for all drinking water; water analyses are not required
- fast: clean joints with Copatin® press fittings
- safe: outstanding corrosion protection
- reliable: fulfils all the requirements of the drinking water laws and regulations – with no restrictions.



### COPATIN® in detail

Applications	Connection techniques	Dimensions	Strengths
<ul style="list-style-type: none"><li>• Plumbing</li><li>• Rainwater</li><li>• Heating</li><li>• Gas</li><li>• Solar</li><li>• Sprinkler</li><li>• Extinguishing water</li></ul>	<ul style="list-style-type: none"><li>• Pressing</li><li>• Soldering</li><li>• Clamping</li><li>• Insertion</li></ul>	<ul style="list-style-type: none"><li>• Straight lengths (5 m) 12 x 1.0 – 108 x 2.0 mm</li><li>• Coils (25 m) 12 x 1.0 – 22 x 1.0 mm</li></ul>	<ul style="list-style-type: none"><li>• soft</li><li>• hard</li></ul>







## WICU® in detail

Applications	Connection techniques	Dimensions	Strengths
<ul style="list-style-type: none"><li>• Plumbing</li><li>• Heating</li><li>• Gas</li><li>• Liquefied gas</li><li>• Oil</li><li>• Rainwater</li><li>• Sprinkler</li><li>• Extinguishing water</li></ul>	<ul style="list-style-type: none"><li>• Soldering</li><li>• Brazing</li><li>• Pressing</li><li>• Clamping</li><li>• Insertion</li></ul>	<ul style="list-style-type: none"><li>• Straight lengths (5 m) 12 x 1.0 – 54 x 1.5 mm</li><li>• Coils (2.5 m) 8 x 1.0 – 22 x 1.0 mm</li><li>• Coils (50 m) 8 x 1.0 – 18 x 1.0 mm</li></ul>	<ul style="list-style-type: none"><li>• soft</li><li>• hard</li></ul>

# WICU®

## The plastic-covered copper tube

WICU®, the plastic covered copper tube, is designed for all applications in domestic plumbing, especially where good exterior protection is needed, such as installation under plaster, in rooms with an aggressive atmosphere and installations with exposed exteriors above or below ground. WICU® is easy to work with and can be joined with conventional copper fittings.

### Product benefits

- Universal applications.
- Reduces condensation.
- Protects against external influences and mechanical damage.
- External corrosion protection.
- Suitable for exterior applications above or below ground (e.g. liquefied gas lines).
- Suitable for installation in rooms with aggressive atmospheres.



# WICU® Eco

## The energy saving tube

WICU® Eco is thermally insulated with a special PUR sheath. The insulation has particularly low thermal conductivity (WLG 026) and is so efficient that the total diameter is very small, which makes installation easy and space saving. KME is the only company in the world that supplies a covered tube with such outstanding insulation properties. WICU® Eco is especially suitable for transporting warm water in plumbing and heating systems. The tube completely fulfils all requirements of the German Energy Saving Regulation (EnEV).

Joints can also be insulated quickly and easily with various components from the WICU® Eco range of system accessories.

### Product benefits

- High-quality heat insulation applied in the factory with particularly low thermal conductivity (WLG 026).
- The small overall outer diameter saves space during installation.
- Inexpensive in comparison to installations that are insulated afterwards.
- Clean installation.
- Complete range of accessories to insulate joints.
- Fulfils the requirements of the German Energy Saving Regulation (EnEV).

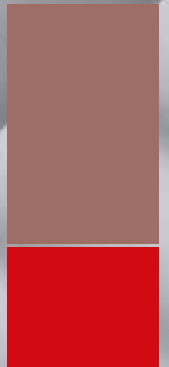
WICU® Eco straight lengths      EnEV100%

WICU® Eco coils                      EnEV50%



### WICU® Eco in detail

Applications	Connection techniques	Dimensions	Strengths
<ul style="list-style-type: none"><li>• Plumbing</li><li>• Heating</li><li>• Solar</li></ul>	<ul style="list-style-type: none"><li>• Soldering</li><li>• Brazing</li><li>• Pressing</li><li>• Clamping</li><li>• Insertion</li></ul>	<ul style="list-style-type: none"><li>• Straight lengths (5 m) 12 x 1.0 – 54 x 1.5 mm</li><li>• Coils (25 m) 12 x 1.0 – 18 x 1.0 mm</li></ul>	<ul style="list-style-type: none"><li>• soft</li><li>• hard</li></ul>



# WICU® Flex

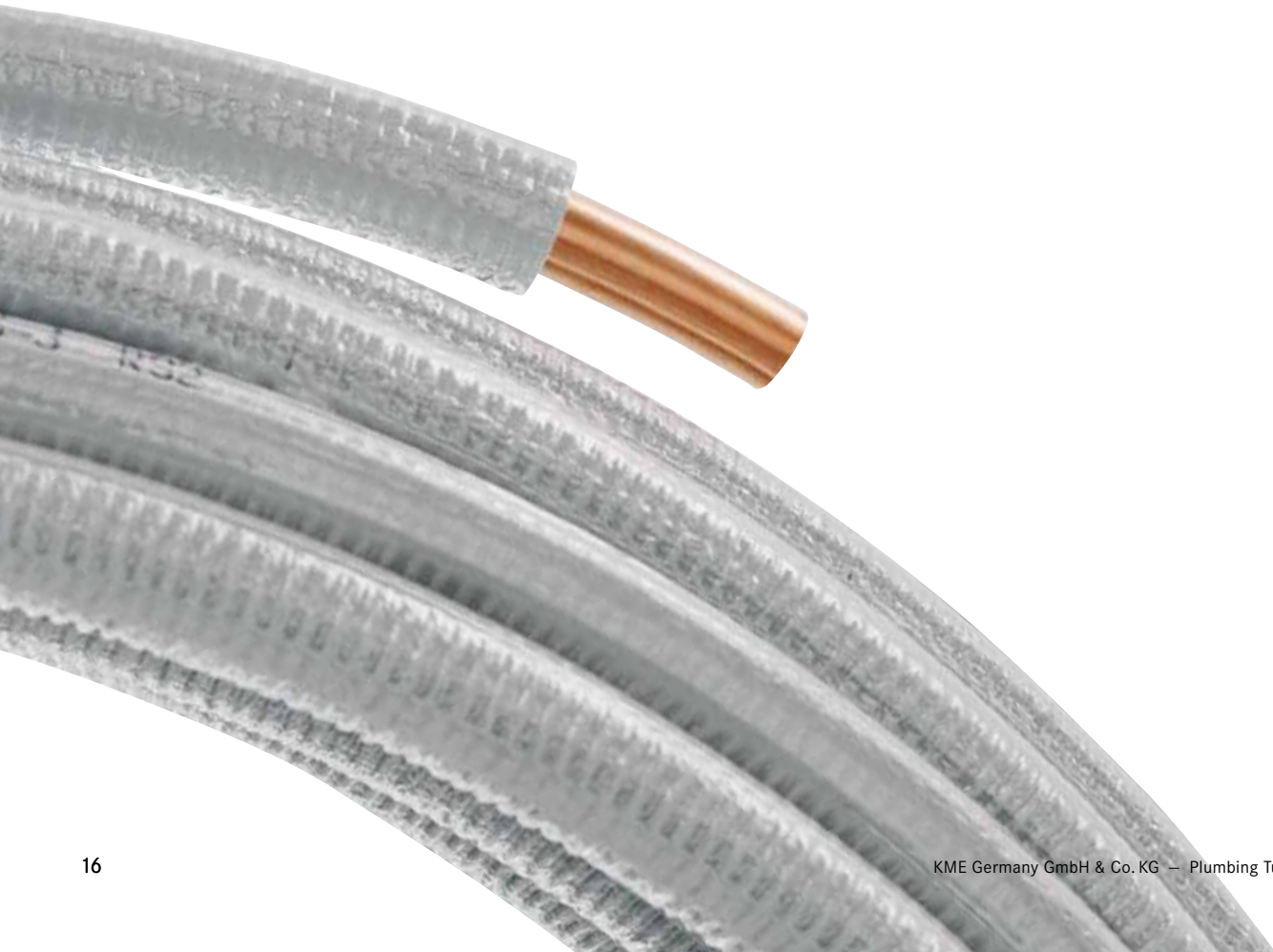
## The copper tube with sound insulation

WICU® Flex has a flexible PE sheath which reduces sound transmission as well as condensation and heat loss. The sheath protects the tube during shipping, installation and handling at the building site. It is very easy to work with. WICU® Flex can be laid quickly, is easy to bend and simple to join with copper fittings. To join tubes, you only have to slide back the sheath and then press it over the fitting afterwards. The benefit: considerable time savings. No subsequent insulation is needed.

WICU® Flex is available only in coils. It is ideal as a drinking water distribution tube or as a heating system connection tube – the perfect solution when the job needs to be done fast.

### Product benefits

- Flexible, soft elastic sheath.
- Fast installation with few joints.
- Certified sound protection according to DIN 4109.
- Reduces condensation.
- Heat and energy losses are reduced.







### WICU® Flex in detail

Applications	Connection techniques	Dimensions	Strengths
<ul style="list-style-type: none"><li>• Plumbing</li><li>• Connecting radiators</li></ul>	<ul style="list-style-type: none"><li>• Soldering</li><li>• Brazing</li><li>• Pressing</li><li>• Clamping</li><li>• Insertion</li></ul>	<ul style="list-style-type: none"><li>• Coils (25 m) 12 x 1.0 – 22 x 1.0 mm</li><li>• Coils (50 m) 12 x 1.0 – 18 x 1.0 mm</li></ul>	<ul style="list-style-type: none"><li>• soft</li></ul>





### WICU® Frio/WICU® Clim in detail

Applications	Connection techniques	Dimensions	Strengths
<ul style="list-style-type: none"><li>• Refrigeration</li></ul>	<ul style="list-style-type: none"><li>• Brazing</li></ul>	<ul style="list-style-type: none"><li>• Coils (25 m) 22 x 1.0 mm (WICU® Frio) 5/8" to 7/8" (WICU® Clim)</li><li>• Coils (50 m) 6 x 1.0 – 18 x 1.0 mm (WICU® Frio) 1/4" to 1/2" (WICU® Clim)</li></ul>	<ul style="list-style-type: none"><li>• soft</li></ul>

# WICU® Frio/WICU® Clim

## The covered copper tubes for air-conditioning technology

Copper tubes to transport cooling fluids and refrigerants are the ideal connection lines between the outer part (condenser) and the inner part (evaporator) in split-system air-conditioning units. These tubes are also ideal in secondary circulation systems, such as refrigerating media with water-glycol mixtures. Installation of supermarket cooling systems is made much simpler, among other things.

The core copper tube is manufactured according to EN 12735-1 and, in accordance with the standard, has a particularly clean and smooth inner surface. The tubing is covered with closed-cell PE foam which reduces refrigeration and heating energy losses. A PE film with a high resistance to steam diffusion prevents condensation entering the insulation, which ensures the long-term insulating effect of the flexible PE sheath.

### Product benefits

- Gas-proof.
- Extremely clean inner surface.
- Each single tube can be traced back to the specific manufacturing batch.
- Secure joints.
- Easy to shape – cold and hot.
- Pressure resistant.

## WICU® Frio – connection tubes for air-conditioning systems

with metric connection



## WICU® Clim – connection tubes for air-conditioning systems

with inch connection



# cuprotherm®

## Underfloor heating system.

Copper tubes have been used successfully in domestic plumbing for many years. Once they have been installed, you can forget about them – the only way you notice the panel heating system is as a comfortable source of heat. Copper in its purest form, Cu-DHP, has proven to be an ideal tube material to ensure trouble-free continuous operation. The cuprotherm® tubes have the highest thermal conductivity rating of all plumbing materials.

### The protective sheath

For the cuprotherm® systems with wet and dry screeds, the heating tubes have a protective sheath, which fulfils the following functions:

- It protects the copper tube against mechanical damage during shipping, installation, and handling on the building site.
- It protects the copper tube against external chemical effects (e.g. aggressive building materials in combination with moisture or swimming pool water containing chlorine).
- It allows the copper tube to expand without restriction, which occurs when the hot water temperature changes.

### Product benefits

- High heating capacity
- Highest thermal conductivity of all plumbing materials
- Unlimited resistance to ageing
- Extreme temperature resistance
- No oxygen diffusion
- Absolutely secure connections
- 100% recyclable





### cuprotherm® in detail

Applications	Connection techniques	Dimensions	Strengths
<ul style="list-style-type: none"><li>• Underfloor heating</li></ul>	<ul style="list-style-type: none"><li>• Brazing</li><li>• Pressing</li></ul>	<ul style="list-style-type: none"><li>• For calcium sulphate and cement screeds:<ul style="list-style-type: none"><li>12 x 0.7 mm cuprotherm® PLUS</li><li>14 x 0.8 mm cuprotherm® PLUS</li></ul></li><li>• For mastic asphalt screeds:<ul style="list-style-type: none"><li>12 x 0.7 mm cuprotherm® BLANK</li><li>14 x 0.8 mm cuprotherm® BLANK</li></ul></li></ul>	<ul style="list-style-type: none"><li>• soft</li></ul>





# Q-tec®

## Flexible, Reliable, Copper

There is nothing to improve in terms of the reliability of copper tubing in domestic plumbing applications. That is why we have increased its flexibility, thereby ensuring all the beneficial qualities of copper.

The result is Q-tec® – a lightweight, high-quality copper tube with an extremely thin wall that ensures predictability in planning and costing. A copper tube with a tight fit to the polyethylene sheath which can easily be bent by hand. A copper tube that is far superior to other flexible tube systems in terms of its suitability for continuous operating temperatures of 70 °C and up to 95 °C for short terms, as in thermal disinfection, and because of its minimum linear expansion. A copper tube which, thanks to its metal-on-metal connection with Q-tec® fittings, is very safe and reliable. The flexible copper tube.

### Product benefits

- Q-tec® is the top choice due to the stability of copper tubes, and lasts as long as your home does
- Q-tec® has low linear expansion and resists pressures of up to 32 bar.
- Q-tec® is the choice of the most conscientious project managers because of its predictability in costing.
- Q-tec® is SANCO® inside – and DVGW-certified to transport drinking water.
- Q-tec® stays hygienically safe and reduces the risk of legionella.
- Q-tec® offers protection against silting-up in under-floor or wall panel heating systems because it is 100% diffusion proof.

*In Germany Q-tec® is offered since 2015 as cuprotherm CTX®.*



### Q-tec® in detail

Applications	Connection techniques	Dimensions	Strengths
<ul style="list-style-type: none"><li>• Plumbing</li><li>• Heating</li><li>• Rainwater</li></ul>	<ul style="list-style-type: none"><li>• Pressing</li></ul>	<ul style="list-style-type: none"><li>• Coils (100 m)<ul style="list-style-type: none"><li>14 x 2.0</li><li>16 x 2.0</li><li>18 x 2.0</li></ul></li><li>• Coils (50 m)<ul style="list-style-type: none"><li>20 x 2.0 mm</li><li>26 x 3.0 mm</li></ul></li></ul>	<ul style="list-style-type: none"><li>• soft</li></ul>



### cuprotherm® PLAN in detail

Applications	Connection techniques	Dimensions	Strengths
<ul style="list-style-type: none"><li>• Wall heating</li></ul>	<ul style="list-style-type: none"><li>• Soldering</li><li>• Brazing</li><li>• Pressing</li><li>• Clamping</li><li>• Insertion</li></ul>	<ul style="list-style-type: none"><li>• Heating wall dimensions</li></ul> <p>H x W [m]</p> <ul style="list-style-type: none"><li>2.30 x 1.00</li><li>1.70 x 1.00</li><li>0.90 x 1.00</li><li>2.30 x 0.65</li><li>1.70 x 0.65</li><li>0.90 x 0.65</li></ul>	<ul style="list-style-type: none"><li>• hard</li></ul>

# cuprotherm® PLAN

## The wall heating system

The cuprotherm® PLAN wall heating system combines all the best features of innovative heating systems: It is energy efficient and maintenance-free and it maintains a comfortable and healthy indoor climate while leaving the room unobstructed for designers.

The design of the cuprotherm® PLAN wall heating system is simple but very efficient: The heating water is fed through copper registers; a mineral plaster absorbs the heat energy and releases it into the room in the form of radiant heat. Excellent heat transmission is a key feature of the proven material bond between copper and mineral plaster. The heating system can be quickly regulated. With just six different registers, cuprotherm® PLAN wall heating systems can be scaled to meet the individual requirements of every room situation in terms of performance and size.

### Product benefits

- Healthy and comfortable room climate.
- Energy saving and maintenance-free.
- Leaves the room free for designers.
- Easy to work with.
- Optimum controls.



KME Germany GmbH & Co. KG – Plumbing Tubes – Product Range



## Hygiene

Compared to other materials, copper has hygienic advantages that are especially important in drinking water installations. As experience and recent studies have shown, the formation of legionella and other harmful bacteria caused by unfavourable operating conditions is considerably reduced when copper is a part of the system. Additionally, there are no temperature-related limitations for thermal disinfecting as in other materials. With copper, the normal use of disinfecting agents in water such as chlorine is also possible in the concentrations typical for drinking water, even short-term high-chlorination processes of up to 12 hours cause no problems whatsoever.



# Processing

	SANCO®	COPATIN®	WICU®	WICU® Eco	WICU® Flex	WICU® Frio/ WICU® Clim	cuprotherm®	Qtec®	cuprotherm® PLAN
Soldering	○	○	○	○	○	○	○	○	○
Brazing	○	○	○	○	○	○	○	○	○
Pressing	○	○	○	○	○	○	○	○	○
Welding	○	○	○	○	○	○	○	○	○
Clamping	○	○	○	○	○	○	○	○	○
Insertion	○	○	○	○	○	○	○	○	○







**Plastic rivets**



**Sealing tape**



**Assembly clamps**



**Awl**



**Coroplast** 19 and 25 mm wide



**Collar tape** for WICU® Eco



**Preformed exterior shell** T-piece



**Preformed exterior shell** 90° bend



**Preformed exterior shell** Straight shell



**Preformed part** T-piece



**Preformed part** 90° bend



**Preformed part** Straight insulating hose

## Accessories – The Copper System

The system accessories from KME consist of components that are especially designed for our tube products and which are absolutely state-of-the-art. This applies to both the installation tube system and the panel heating systems. KME supplies insulation and preformed parts for perfect installation as well as all the necessary components to install panel heating systems reliably and professionally. All KME system components are covered by warranty.



## Manufacture

These days tube manufacturing is a high-tech process. At KME it runs smoothly from the raw material stage through to delivery.

The starting products are refined copper billets delivered from continuous casting plants. These are heated to 950 °C and processed into hollows for further processing by hot pressing or hot skew rolling. Reciprocating rolls then perform the subsequent cold forming. Hard, half-hard and soft copper tubes are produced for domestic plumbing in multi-stage cold-drawing processes.



## Quality and Reliability

KME defines quality as a task for every single employee and thus practices effective improvement at every workplace. The commitment of every employee is a vital requirement to ensure that we only put the best copper tubes on to the market. Because of this, KME quality management systems fulfil the ISO-9000 standard, among others. You can only have fully satisfied customers in the long term with complete reliability in the production processes and the quality of the finished products.

On the basis of this responsibility, KME offers all contractors reliable warranty agreements. The manufacturers' system alliance with the ZVSHK (German Central Association Plumbing, Heating, Air Conditioning) and the BHKS (Federal Industrial Association for Heating, Air Conditioning and Sanitary Engineering/Technical Buildings Systems) guarantees maximum reliability.

*Reliability is top priority – from the raw material to the finished KME copper tube.*







## **KME Plumbing Tubes – Training and Advice**

High-quality brand name products have to be processed properly so that quality standards and reliability can be guaranteed. As a leading manufacturer of brand name copper tubes in Europe, KME not only offers the widest product range, but also the best support.

We pass on our many years of experience with copper plumbing tubes to contractors in the plumbing, heating, and air-conditioning industries in numerous seminars. The content of the seminars is always up to date and can be used in practical application. In addition to theoretical fundamentals, the seminars also deal with practical planning and installation of plumbing and heating systems with brand name copper tubes. Our specialist seminars are held by experienced trainers. They also offer extensive advice for all issues relating to KME brand name copper tubes.







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Plumbing Tubes

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