

Copper pipes

LAFARGA 
yourcoppersolutions



Copper pipes

La Farga



La Farga

La Farga is an industrial holding company with **over 200 years of experience** producing and marketing semi-finished copper and its alloys for the copper piping, electrical, railway, automotive and package welding markets, among others.

In the piping market, La Farga **produces and distributes copper pipes** for transporting domestic water, gas, heating, solar thermal energy, air conditioning, refrigeration, medical gases and industrial applications.

La Farga has a **wide range of copper pipes** grouped together under the **eCOPPERclean** brand. We are a certified company.



La Farga offers:

- ▶ Meticulously controlled production processes.
- ▶ A wide range of copper pipes for use in domestic water, heating, gas, air conditioning and industrial applications.
- ▶ Maximum technical performance.
- ▶ A policy of flexibility and adaptability in terms of service and product.
- ▶ Projects on which we collaborate with our customers in order to develop new products.





Hard and annealed copper pipe for domestic water, gas, heating and solar thermal applications

Hard and annealed copper pipe for transporting domestic water and gas, and for heating and solar thermal energy, certified by AENOR in all its applications. Our pipes also have the CE declaration.

This is the copper pipe chosen by professionals for health facilities because it offers maximum safety and durability.

LA FARGA guarantees SANITUB 50 years in order to give you the maximum safety and avoid you any installation problem in the future.

Technical specifications

Standard: UNE-EN 1057

Chemical composition: CuDHP (Cu+Ag) > 99.90%

P: 0.015% / 0.04%

Condition: hard, half-hard and annealed

Resistant to high temperatures, with a melting point of 1083°C

High thermal conductivity: $\lambda = 364 \text{ W/m}^\circ\text{C}$ (20°C)

Minimum Coefficient of expansion: 0.0168 mm/m°C



Range of coils

Dimension (mm)	Operating pressure (bar)	Breaking pressure (kg/cm ²)	Length of coils (m)	Metres / Pallet
8 x 1	122	611	25/50	1200
10 x 1	96	478	25/50	1200
12 x 1	79	393	25/50	900
14 x 1	67	333	25/50	800
15 x 1	62	310	25/50	800
16 x 1	58	290	25/50	700
18 x 1	51	256	25/50	600
22 x 1	41	208	25/50	350/300
15 x 1,5	96	478	25/50	800
18 x 1,5	79	393	25/50	600
22 x 1,5	64	317	25/50	350/400





Range of lengths

Dimension (mm)	Operating pressure (bar)	Breaking pressure (kg/cm ²)	Lengths (m)	Metres / Bundle
15 x 0,75	60	302	5	1500
18 x 0,75	50	250	5	1500
8 x 1	161	806	5	500
10 x 1	126	630	5	500
12 x 1	104	518	5	500
14 x 1	88	439	5	500
15 x 1	82	409	5	750
16 x 1	76	382	5	500
18 x 1	67	337	5	500
22 x 1	55	213	5	500
28 x 1	43	213	5	500
35 x 1	34	170	5	250
42 x 1	28	141	5	200
54 x 1,2	26	131	5	150
15 x 1,5	126	630	5	900
18 x 1,5	104	518	5	750
22 x 1,5	84	418	5	500
28 x 1,5	65	325	5	450
35 x 1,5	52	257	5	350
42 x 1,5	43	213	5	200
54 x 1,5	33	165	5	150
64 x 1,5	28	139	5	100
76,1 x 1,5	23	116	5	50
15 x 1	82	409	2,5	750
18 x 1	67	337	2,5	500
22 x 1	55	273	2,5	500

*Consult for other sizes



The installation for today and tomorrow

Maximum Durability

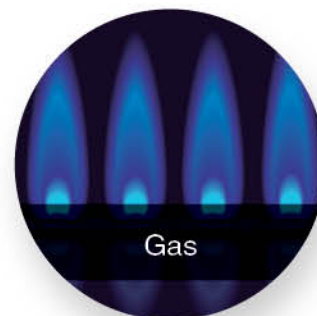


What advantages does the installation provide?

- ▶ **Impermeable** to external agents such as oxygen.
- ▶ **Antimicrobial properties**, certified by the EPA (Environmental Protection Agency) USA. It prevents the growth and eliminates up to 99.9% of bacteria and fungi on copper surfaces.
- ▶ Acts as an **inhibiting agent** for the growth of **legionella** in water installations.
- ▶ **Maximum durability**.
- ▶ Provides **energy saving** for the home due to its minimum pressure loss.
- ▶ Internal anti-corrosion treatment.
- ▶ Easy to install and handle.
- ▶ **Compatible** with different types of **accessories** (capillary soldering, compression and threaded joints, etc.).
- ▶ Immune to the action of rodents.
- ▶ **Installation guaranteed for 50 years**.
- ▶ Harmless material.
- ▶ Contributes to a **sustainable home**.
- ▶ Ideal for high pressures and temperatures. Less risk of leaks and accidents.
- ▶ In case of fire, it does not contribute to its propagation. It is **incombustible** and does not emit toxic gases (Class A1 European system of Euro-classes).
- ▶ **Best conductor of heat**, ideal for heating installations and the primary circuit in solar thermal energy installations.
- ▶ **Resistant to UVA radiations**.
- ▶ The most **versatile** alternative for any type of installation.
- ▶ Highly resistant to attack by materials used in construction (cement, gypsum, plaster, etc.)
- ▶ **Excellent performance** with the vast majority of common **building materials**.



Water



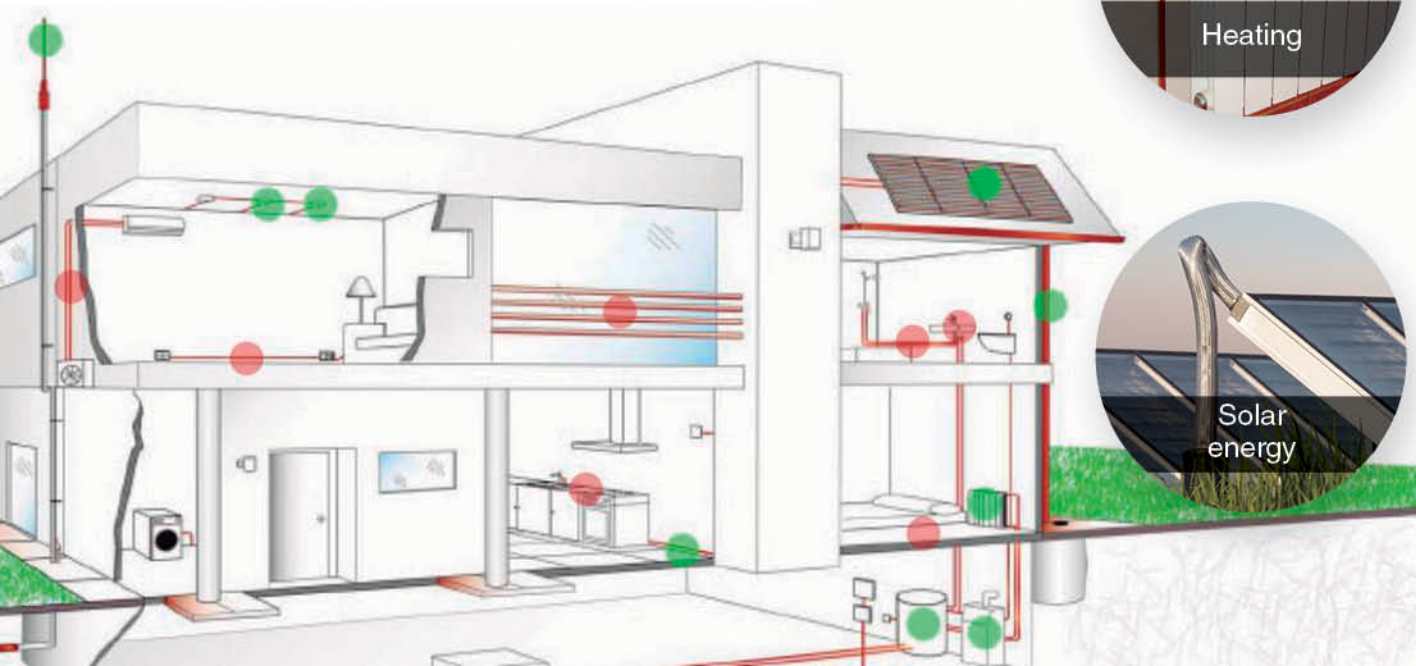
Gas

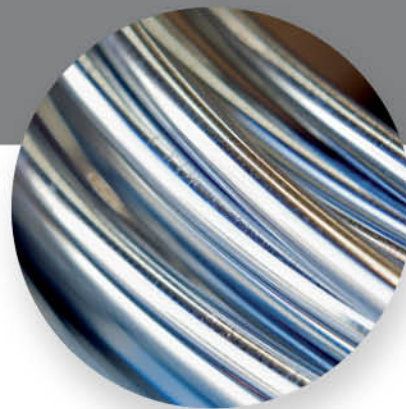


Heating



Solar energy





Chrome-plated annealed copper pipe for domestic water, gas and heating applications

Chrome-plated annealed copper pipe for transporting domestic water and gas, and for heating and solar thermal energy, certified by AENOR in all its applications. Our pipes also have the CE declaration.

Technical specifications

Standard: UNE-EN 1057

Chemical composition: CuDHP (Cu+Ag) > 99.90%

P: 0.015% / 0.04%

Condition: annealed

Resistant to high temperatures, with a melting point of 1083°C

High thermal conductivity: $\lambda = 364 \text{ W/m}^\circ\text{C}$ (20°C)

Minimum coefficient of expansion: 0.0168 mm/m°C



Range of coils

Dimension (mm)	Operating pressure (bar)	Breaking pressure (kg/cm ²)	Length of coils (m)	Metres / Pallet
8 x 1	122	611	25	800
10 x 1	96	478	25	750
12 x 1	79	393	25	500



What advantages does the installation provide?

- ▶ Aesthetic value.
- ▶ **Impermeable** to external agents such as oxygen.
- ▶ **Antimicrobial properties**, certified by the EPA (Environmental Protection Agency) USA. It prevents the growth and eliminates up to 99.9% of bacteria.
- ▶ Maximum **durability**.
- ▶ **Minimum loss** of load.
- ▶ **Excellent soldering**.
- ▶ Internal anti-corrosion treatment.
- ▶ **Easy to install**.
- ▶ **Different types of accessories** can be used (capillary soldering, compression and threaded joints, etc.).
- ▶ **Excellent performance** with the vast majority of common **building materials**.
- ▶ **Highly resistant** to attack by materials used in construction (cement, gypsum, plaster, etc.)
- ▶ Immune to the action of rodents.

This is the copper pipe chosen by professionals for health facilities IN AGGRESSIVE ATMOSPHERES because it offers maximum safety and durability



Copper tubes for air conditioning and refrigeration

Technical specifications for the copper tubes

Standard: UNE-EN 12735-1

Chemical composition: CuDHP (Cu+Ag) > 99.90%

P: 0.015% / 0.04%

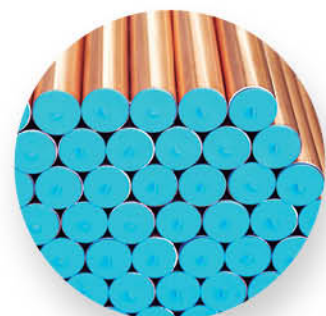
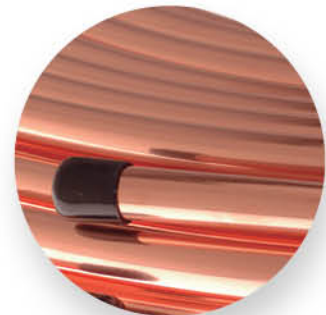
Condition: hard, half-hard and annealed

Range of coils

Dimension (inches/mm)	Operating pressure (bar)	Breaking pressure (kg/cm ²)	Length of coils (m)	Coil / Pallet	Coil per box	Boxes per pallet
1/4 x 0,80	123	617	15	180	10	18
5/16 x 0,80	96	482	15	168	7	24
3/8 x 0,80	79	396	15	72	6	12
1/2 x 0,80	58	292	15	56	7	8
5/8 x 0,80	46	231	15	56	7	8
5/8 x 1	58	292	15	56	7	8
3/4 x 0,80	38	191	15	40	4	10
3/4 x 1	48	241	15	32	4	8
7/8 x 1	41	205	15	24	3	8

Range of lengths

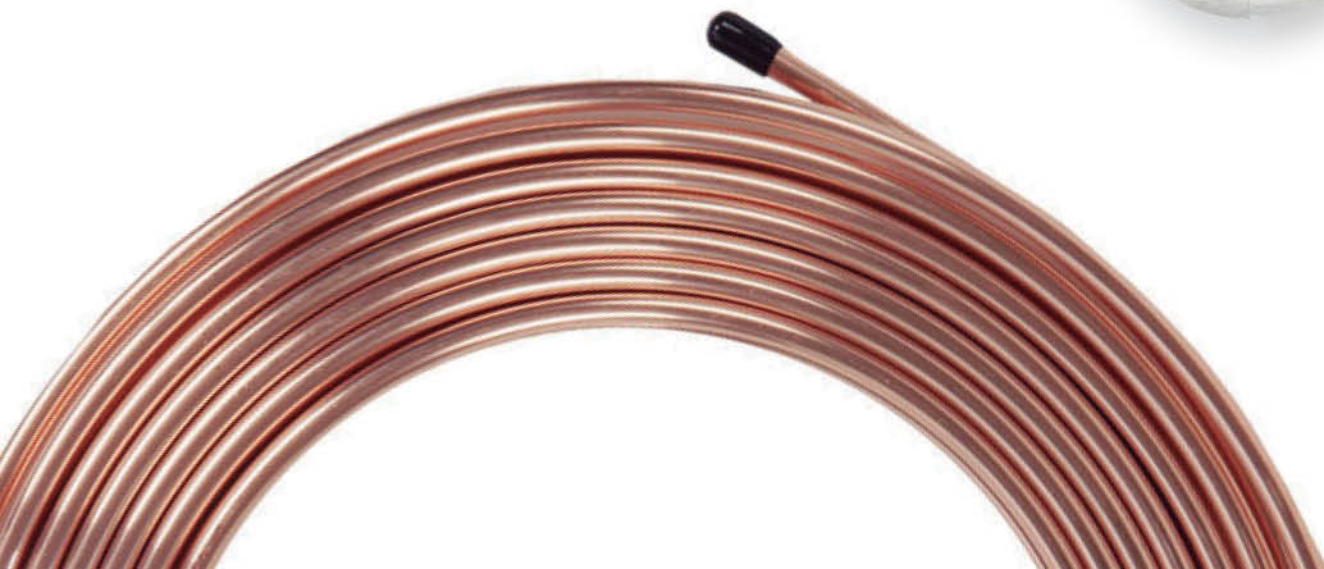
Dimension (inches / mm)	Operating pressure (bar)	Breaking pressure (kg/cm ²)	Length (m)	Metres/ Bundle
3/8 x 0,80	105	523	5	500
1/2 x 0,80	77	385	5	500
5/8 x 0,80	61	305	5	500
5/8 x 1	77	385	5	500
3/4 x 0,80	50	252	5	500
3/4 x 1	64	318	5	500
7/8 x 1	54	270	5	500
1 x 1	47	236	5	500
1 1/8 x 1	42	209	5	500
1 3/8 x 1,25	43	214	5	300
1 5/8 x 1,25	36	180	5	200
2 1/8 x 1,25	27	137	5	100
2 5/8 x 1,65	29	146	5	75
3 1/8 x 1,65	25	123	5	50





What advantages does the installation provide?

- ▶ Specially **designed for ACR and refrigeration installations.**
- ▶ **Impermeable** to external agents such as oxygen.
- ▶ **Antimicrobial properties**, certified by the EPA (Environmental Protection Agency) USA. It prevents the growth and eliminates up to 99.9% of bacteria and fungi on copper surfaces.
- ▶ Maximum **durability.**
- ▶ **Excellent soldering.**
- ▶ Internal anti-corrosion treatment.
- ▶ **Different types of accessories** can be used (capillary soldering, compression and threaded joints, etc.).
- ▶ **Excellent performance** with the vast majority of common **building materials.**
- ▶ Highly resistant to attack by materials used in construction (cement, gypsum, plaster, etc.)
- ▶ **Easy to install.**
- ▶ Improves the quality of the installation service.
- ▶ Provides **greater sustainability** for the home.
- ▶ **Resistant to high pressures**, suitable for refrigerants that operate at high pressures.
- ▶ **Resistant to high temperatures.**
- ▶ **Resistant to UVA radiation.**
- ▶ Resistant to the passage of time and to breakage due to alteration or ageing.
- ▶ Excellent mechanical properties.
- ▶ In case of fire, it does not contribute to its propagation. It is **incombustible** and does not emit toxic gases (Class A1 European system of Euro-classes).





Twin and single insulated copper tubes for air conditioning

Technical specifications for the copper tubes

Standard: UNE-EN 12735-1

Chemical composition: CuDHP (Cu+Ag) > 99.90%

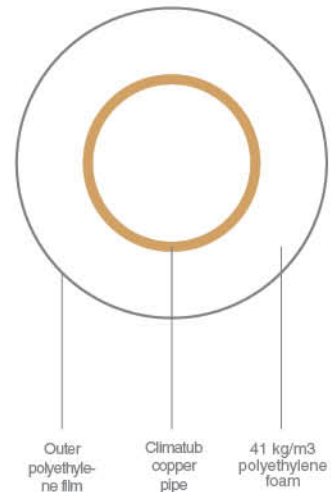
P: 0.015% / 0.04%

Condition and type of packaging: annealed in coil (R220)



Technical specifications of the polyethylene foam

	Standard	Value
Coefficient of thermal conductivity at 10°C (fi)	UNE-EN 12667 UNE-EN 12938	0,040 W/m °C
Coefficient of resistance to water vapour diffusion (μ)	UNE-EN 13469	>7000 m/h/Pa/mg
Density	UNE-EN 13470	41 Kg/m ³
Thickness	UNE-EN 13467	6 a 9 mm
Ageing of surface finish	UNE-EN ISO	No alteration
CFC/HCFC	-	Sin CFC/HCFC
Maximum service temperature	EN 14706 y EN 14707	90 °C



Range of coils

	Dimension (mm)	Operating pressure (bar)	Breaking pressure (kg/cm ²)	Length of coils (m)	Metres / Pallet
Monotube coil	1/4 x 0,80	123	617	25/50	800
	3/8 x 0,80	79	396	25/50	550/700
	1/2 x 0,80	58	292	25/50	500
	5/8 x 0,80	46	231	25/50	350/400
	5/8 x 1	58	292	25/50	350/400
	3/4 x 1	48	241	25/50	250/400
	7/8 x 1	41	205	25/50	200

	Dimension (mm)	Length of coils (m)	Metres / Pallet
Bitube coil	1/4 x 0,80 - 3/8 x 0,80	20	320
	1/4 x 0,80 - 1/2 x 0,80	20	240
	1/4 x 0,80 - 5/8 x 0,80	20	240
	1/4 x 0,80 - 5/8 x 1	20	240
	3/8 x 0,80 - 1/2 x 0,80	20	200
	3/8 x 0,80 - 5/8 x 0,80	20	200
	3/8 x 0,80 - 5/8 x 1	20	200
	3/8 x 0,80 - 3/4 x 1	20	160
	1/2 x 0,80 - 3/4 x 1	20	200

What advantages does the installation provide?

- ▶ Suitable for R410A, R407C refrigerant gases.
- ▶ Reduces the labour in the installation.
- ▶ Improves the quality of the installation service.
- ▶ Resistant to high pressures.
- ▶ Resistant to UVA rays.
- ▶ Resistant to the passage of time and to breakage due to alteration or ageing.
- ▶ Excellent mechanical properties.



Insulated copper pipe for domestic water and gas applications

Technical specifications

Standard: UNE-EN 1057

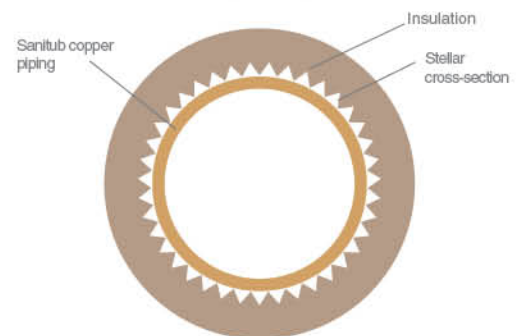
Chemical composition: CuDHP (Cu+Ag) > 99,90%

P: 0,015% / 0,04%

Condition: annealed

Specifications of the Insulation

- ▶ **Material:** PVC covering (polyvinyl chloride), stellar cross-section, smooth, odourless and non-toxic.
- ▶ **Physical properties:** resistant to temperatures of -25 to $+105^{\circ}\text{C}$.
- ▶ **Use:** heating and plumbing, gas and liquid fuel installations.
- ▶ Each coil is wrapped in a transparent film.
- ▶ Marked each meter.
- ▶ Insulation thickness from 1.5 to 2.5 mm.



Range of coils

Dimension (mm)	Operating pressure (bar)	Breaking pressure (kg/cm ²)	Length of coils (m)	Metres / Pallet
10 x 1	96	478	50	1000
12 x 1	79	393	50	1000
14 x 1	67	333	50	800
15 x 1	62	310	50	800
16 x 1	58	290	50	800
18 x 1	51	256	50	800
22 x 1	42	208	25	400



What advantages does the installation provide?

- ▶ **Easy to install.**
- ▶ Reduces the labour in the installation.
- ▶ **Protects the copper piping.**
- ▶ Allows the pipe to expand.
- ▶ Improves the quality of the installation service.
- ▶ Provides **greater sustainability for the home.**





Insulated copper pipe for heating, domestic water and solar energy applications*

Technical specifications for the copper tube

Standard: UNE-EN 1057

Chemical composition: CuDHP (Cu+Ag) > 99.90%

P: 0.015% / 0.04%

Condition: annealed

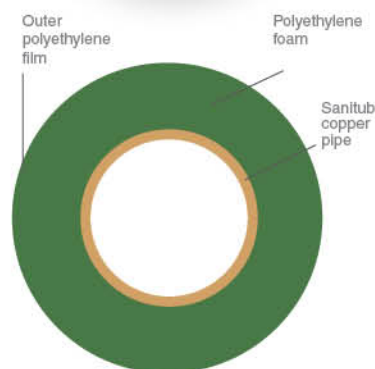
Specifications of the insulation

- ▶ **Material:** closed cell polyethylene foam coated with a polyethylene film coloured blue or green, which provides greater resistance, and is odourless and non-toxic.
- ▶ **Physical properties:** thermal conductivity of 0.040 W/mk. - Resistant to temperatures of -40 to +105°C. Resistant to commonly-used chemical agents. Good resistance to water vapour diffusion.
- ▶ **Use:** hot water, heating and solar energy installations*.
- ▶ Each coil is wrapped in a transparent film.
- ▶ Marked at every metre.
- ▶ Insulation thickness from 6 to 9 mm.



Range of coils

Dimension (mm)	Operating pressure (bar)	Breaking pressure (kg/cm ²)	Length of coils (m)	Metres/Pallet
10 x 1	96	478	50	1000
12 x 1	79	393	50	1000
14 x 1	67	333	50	800
15 x 1	62	310	50	800
16 x 1	58	290	50	800
18 x 1	51	256	50	800
22 x 1	42	208	25	400

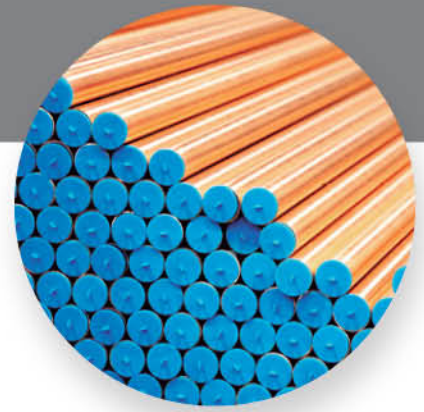


What advantages does the installation provide?

- ▶ **Easy to install.**
- ▶ **Reduces the labour** in the installation.
- ▶ **Substantial savings in energy consumption.**
- ▶ Provides greater quality of the installation.



* Secondary circuit



Copper piping for medicinal gases and vacuum

Technical specifications for the copper tube

Standard: UNE-EN 13348

Chemical composition: CuDHP (Cu+Ag) > 99.90%

P: 0.015% / 0.04%

Condition: hard, semi-hard and annealed

Range of coils

Dimension (mm)	Operating pressure (bar)	Breaking pressure (kg/cm ²)	Length of coils (m)	Metres/Pallet
8 x 1	122	611	50	1400
10 x 1	96	478	50	1000
12 x 1	79	393	50	1000
14 x 1	67	333	50	800
15 x 1	62	310	50	700
18 x 1	51	256	35	420
22 x 1	41	208	35	280



Range of lengths

Dimension (mm)	Operating pressure (bar)	Breaking pressure (kg/cm ²)	Length (m)	Metres/Bundle
8 x 1	161	806	5	500
10 x 1	126	630	5	2000
12 x 1	104	518	5	1500
14 x 1	88	439	5	500
15 x 1	82	409	5	1500
16 x 1	76	382	5	500
18 x 1	67	337	5	1000
22 x 1	55	280	5	1000
28 x 1	43	213	5	625
35 x 1	34	169	5	350
42 x 1	28	141	5	300
28 x 1,2	51	257	5	500
54 x 1,2	26	131	5	165
35 x 1,5	52	257	5	395
42 x 1,5	43	213	5	300
54 x 1,5	33	165	5	165
64 X 1,5	28	139	5	110
76,1 X 1,5	23	116	5	500

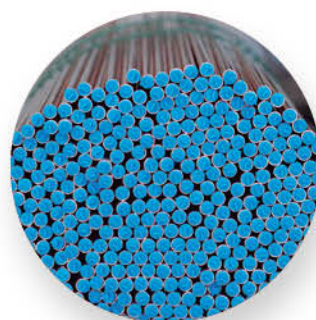


What advantages does the installation provide?

- ▶ Specially designed for **transporting medicinal gases** in accordance with the mandatory **European Regulations EN 13348**.
- ▶ Quality demanded for **hospital facilities**.
- ▶ **Impermeable** to external agents such as oxygen.
- ▶ **Antimicrobial properties**, certified by the EPA (Environmental Protection Agency) USA. It prevents the growth and eliminates up to 99.9% of bacteria and fungi on copper surfaces.
- ▶ **Maximum durability**.
- ▶ Excellent soldering.
- ▶ Internal anti-corrosion treatment.
- ▶ **Different types of accessories can be used** (capillary soldering, compression and threaded joints, and cold joints).
- ▶ Highly resistant to attack by materials used in construction (cement, gypsum, plaster, etc.).
- ▶ **Easy to install**.
- ▶ **Health protector**.
- ▶ Excellent mechanical properties.
- ▶ Resistant to high temperatures and high pressures.
- ▶ Traceability monitoring.
- ▶ In case of fire, it does not contribute to its propagation. It is **incombustible** and does not emit toxic gases (Class A1 European system of Euro-classes)..
- ▶ **Special internal cleanliness** guaranteed by sealing each length or roll with caps at the ends.
- ▶ **Monitoring of traceability throughout the process**, from manufacturing through to installation.



*In
accordance
with european
standard
EN 13348*



Indutub - Level Wound Coil



Copper tube for industrial uses

Technical specifications

Range of lengths

Standard: UNE-EN 12449

Chemical composition: CuDHP (Cu+Ag) > 99.90%

P: 0.015% / 0.04%

Condition and availability:

Hard 5 and 6 metre lengths

Half-hard 5 and 6 metre lengths

Annealed 5 and 6 metre lengths

Diameter: from 6 to 80 mm

Thickness: from 0.5 to 2.5 mm



Range of coils

Standard: EN 12735-1 / -2 / EN 1057 / EN 12449 / EN 12451 and others

Chemical composition: CuDHP (Cu+Ag) > 99.90%

Condition: annealed

Packing: reel (LWC), maximum 140 kg / 7 rolls per pallet / Pancake

Technical specifications: compatible with the new green refrigerant gases (without CFC or HCFC) R134a, R407C, R410A, R417A

Diameter: from 6 to 22 mm



What advantages does it provide?

- ▶ Specially **designed** for industrial applications.
- ▶ **Antimicrobial properties**, certified by the EPA (Environmental Protection Agency) USA. It prevents the growth and eliminates up to 99.9% of bacteria and fungi on copper surfaces.
- ▶ Maximum **durability**.
- ▶ Excellent soldering.
- ▶ Internal anti-corrosion treatment.
- ▶ **Health protector**.
- ▶ **Excellent mechanical properties**.
- ▶ Resistant to high temperatures and high pressures.
- ▶ **Impermeable** to external agents such as oxygen.
- ▶ High thermal conductivity: $\lambda = 364 \text{ W/m}^\circ\text{C}$ (20°C).



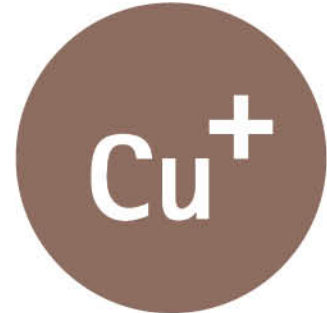
Antimicrobial Copper



Copper makes it possible to eliminate 99.9% of bacteria in just two hours, in addition to inhibiting the growth of viruses and fungi, and therefore reduces the chances of infection and permanently acts as an effective material in the fight against pathogens.

On any surface, bacteria can reproduce a trillion times in 24 hours; Therefore we recommend copper as a preventative material.

- ▶ It is essential for life and a protector of health.
- ▶ It is the only material certified by the EPA as an antimicrobial agent.
- ▶ It eliminates and prevents the growth of bacteria and fungi.
- ▶ It is impermeable to external agents that can contaminate the water in the piping.
- ▶ It is resistant to any process of disinfection (chlorination, heat shock, etc.) carried out in water installations.
- ▶ It acts as a protective agent against the proliferation of Legionella in water installations.



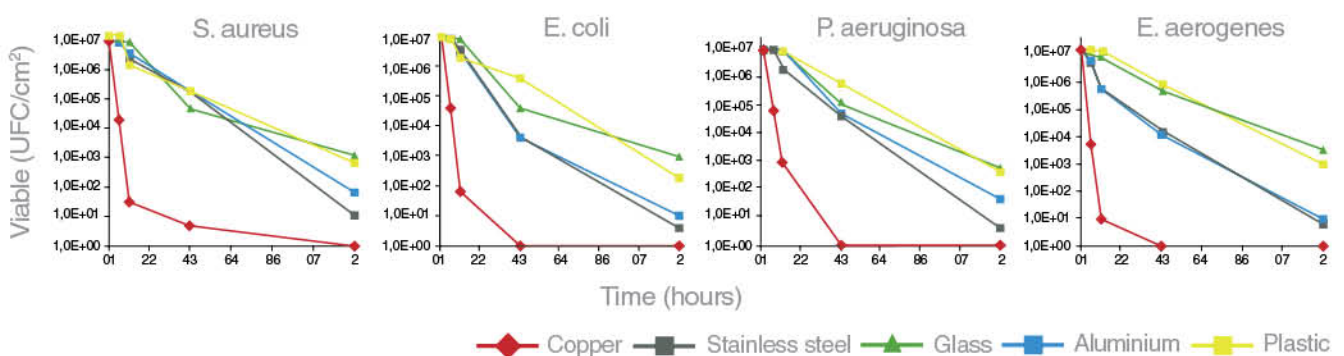
Trial demonstrating its antimicrobial properties

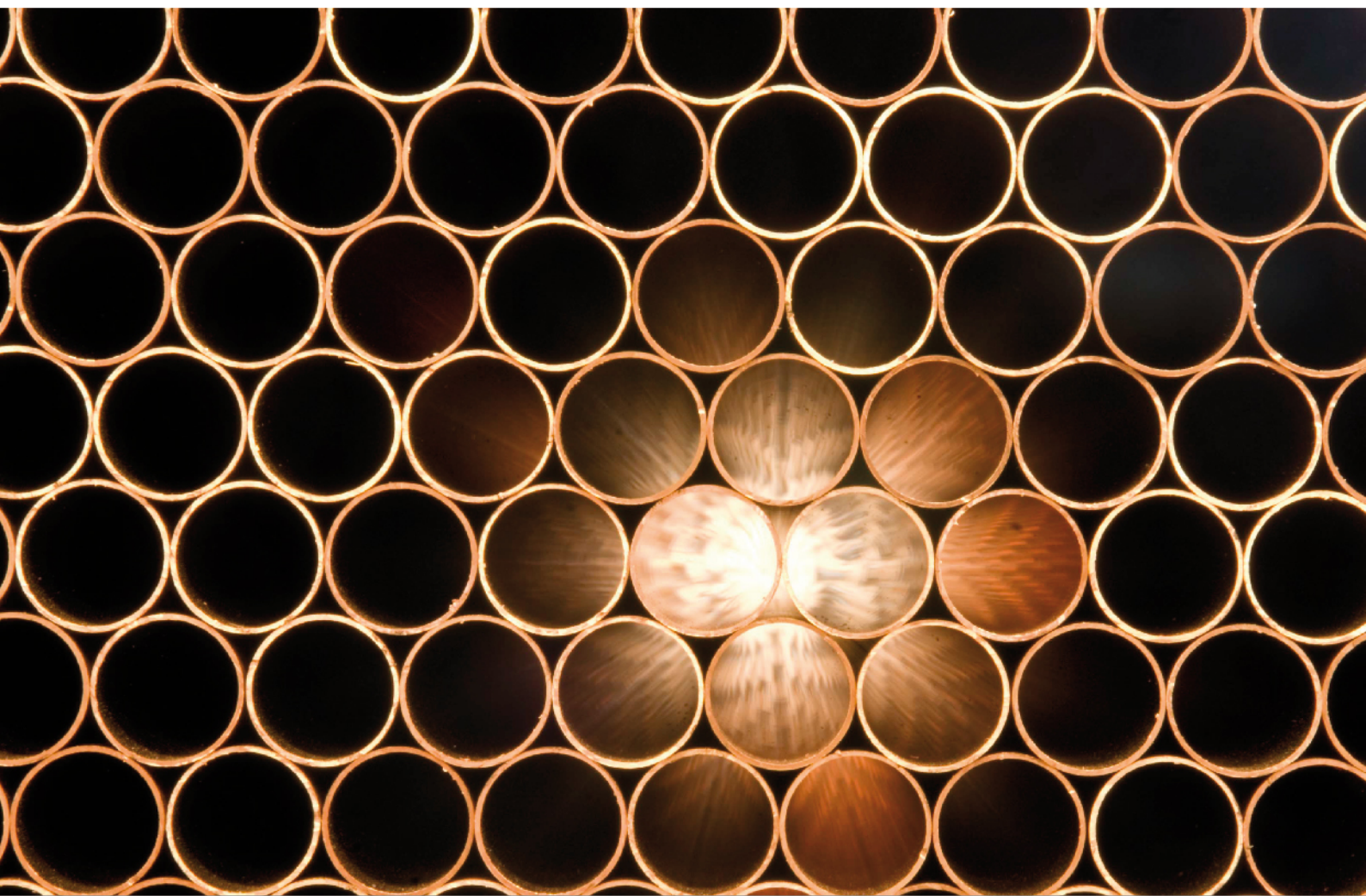
In 2013 La Farga commissioned a demonstration trial of the antimicrobial effect of copper at the University of Vic. The aims of this study were to experimentally test the antimicrobial effect of copper over time in four species of bacteria known to EPA (*E.coli*, *S.aureus*, *P.aeruginosa*, *E.aerogenes*) and to determine qualitatively and quantitatively the differences between the antimicrobial effect of the copper and that of the other 4 materials in daily use (stainless, glass, aluminium and plastic).



The conclusions that were gleaned from the trial were that copper has a high antimicrobial activity against the four micro-organisms studied, with a reduction of almost 100% after 24 hours of contact with the surface of the material.

Results obtained with the various organisms and materials at room temperature (24°C) for 72 hours.





LAFARGA 
yourcoppersolutions

Ctra. C17z Km 73,5 - 08508 Les Masies de Voltregà
(Barcelona)
Tel. +34 938 594 732
lafarga@lafarga.es
www.lafarga.es

