



AFERKO
— BUILD —





LEVEL WOUND COIL (LWC) COPPER TUBE

The LWC Copper Tube (Cu-Ohp 99,9%) is mostly applied to air conditioning, refrigeration and general engineering applications. LWC Copper Tube is produced according to the EN 12735-1 standard and it's also comply with the ASTM 8280 specifications.

PRODUCT RANGE															
W.T. O.D.	mm	0.3	0.35	0.4	0.45	0.5	0.55	0.6	0.63	0.7	0.76	0.8	0.9	1	1.2
mm	inch	0.012	0.014	0.016	0.018	0.020	0.022	0.024	0.025	0.028	0.030	0.031	0.035	0.039	0.047
4	....			y	y	y	y	y	y	y	y				
4.76	3/16			y	y	y	y	y	y						
6.35	1/4		y	y	y	y	y	y	y	y	y	y			
7.93	5/16	✓	y	y	y	y	y	y	y	y	y	y	y		
9.52	3/8	✓	y	y	y	y	y	y	y	y	y	y	y		
12	....		y	y	y	y	y	y	y	y	y	y	y		
12.7	1.2		y	y	y	y	y	y	y	y	y	y	y	y	
15.87	5.8			y	y	y	y	y	y	y	y	y	y	y	
16	....					y	y	y	y	y	y	y	y		
18	....							y	y	y	y	y	y		
19.05	3/4							y	y	y	y	y	y		y

General Specifications								
Sizes		Material		Temper		Coil Weight	Form of packing	
Outside diameter (mm) 4 - 19.05	Wall Thickness (mm) 0,28 - 1,10	Cu:99,90% Phosphorous: 0,015-0,040%		Light Annealed (0 50)	Soft Annealed (080)	80 • 250 kg	With Bobbin	Bobbin-less
		Ct 2200 GHP 75, TM 868.)	Cardboard & Wooden Reels				Cardboard	
		Cu • DHP J ; 12735, EN)		Also Can be supplied as Hard Drawn Tube			Stacked on pallets and shrink wrapped	



STRAIGHT COPPER TUBE

The *straight* copper tubes are used for air conditioning & refrigeration industries, electrical industries and sanitary purposes. Cu-OHP 99,9% copper pipe (EN 12735-1) sealed ends and dehumidified, R290 non-annealed and R220 annealed in straight form, high resistance to pitting corrosion.

Soft Straight Copper Tubes

Mechanical properties according to EN 12735-1 for soft copper tubes

Temper	Temper designation	Tensile strength (N/mm ²)	Elongation (%) A5	Hardness HV5 (approximately)
Soft	R220	min.220	40	40-70

Delivery conditions and packaging for soft copper tubes

Temper designation	Outer Diameter (mm)	Wall thickness (mm)	Delivery Condition	Packaging
R220	5-108	0,5-2,5	up to 6 m, straight length	Wooden Box

Hard Straight Copper Tubes

Mechanical properties according to EN 12735-1 for hard copper tubes

Temper	Temper designation	Tensile strength (N/mm ²)	Elongation (%) A5	Hardness HV5 (approximately)
Hard	R290	min.290	3	min.100

Delivery conditions and packaging for soft copper tubes

Temper designation	Outer Diameter (mm)	Wall thickness (mm)	Delivery Condition	Packaging
R290	5-108	0,5-2,5	up to 6 m, straight length	in bundles wrapped in plastic foil



PANCAKE COPPER TUBE CO/L

The *Pancake Copper Tube* (Cu-Dhp 99,9% copper pipe (EN 12735-1) end-capped, R220 annealed in coil form, high resistance to pitting corrosion) is mainly applied to air conditioning and refrigeration industry and installation. According to the EN standard the Pancake tube has good bending properties for usage in utility supplies such as plumbing installations, gas transport networks, air conditioning systems and refrigerant piping. These products are supplied in the annealed form. All coils are cleaned and capped to keep contaminants from entering the tube. Then they are individually labeled, shrink wrapped and boxed in cardboard cartons for ease of handling and distribution.

PANCAKE COPPER TUBES

Mechanical properties according to EN 12735-1 for pancake copper tubes

Temper	Temper designation	Tensile strength (N/mm ²)	Elongation(%)A5	Hardness HV5 (approximately)
Soft	R220	min.220	40	40-70

Delivery condition and packaging for soft copper tubes

Temper designation	Outer Diameter (mm)	Wall thickness (mm)	Delivery Condition	Packaging
R220	5-22	0,5-2,0	25 and 50m coils	Cardboard boxes on pallets
R220	6-20	0,28-1,0	LW coil, 120-400 kg weight	Cardboard boxes on pallets



PE-INSULATED COPPER TUBE

Suitable for air conditioning, refrigeration and industrial systems. Cu-Ohp 99,9% cooper pipe *insulated* with an expanded polyethylene tube, *closed cell* and an *external* LDPE fail. Maximum Fire Safety with *self-extinguishing* DiN 4102-81, SBI BL S1DO. Nontoxic gases and resistant ta *external* chemical agents and ultra-violet rays.



Sustainability



Fulf/recyclable



Specificities

Unique aesthetical appearance
Excellent mechanical strength



Fire

Exceient flame extinguishing properties
SBI BLS1 DO



Health

Produced without(H)CFC
Complies to REACH
Complies to VOC (Volatileorganic components)
Complies to RoHS (Restriction of Hazardous Substances)



Certificates

Compliant wi1hthe German EnEV
CE system 3 certified



Service temperatures

Wideservice temperature range
Minimum -80°C
Maximum 95°C (EN 14707)



Additional Information
Standart Thickness : 6,10,13,19

TECHNICAL SPECS OF COPPER PIPE

Chemical Composition	99,9% Cu-Dhp
Conformly	EN 12735-1
Unit Breaking Load	Min. R=220n/mm ²
Elongation%	A% min = 45%
Physical Condition	Annealed
InternaSurface	Glossy, perfectly clean, conforming ASTM B-280 legislation
Heat Conductor at 20°C	364W/mK
Condition	Sealed ends, dehumified

Water

Closed celli structure for good water vapor barrier
wa1er vapor resistance M-value ≥ 5000 (EN13469)
Wa1er absorption WS05 (EN 13472)

Insulation

Semi-flexible themnoplasticfoam
Excellent insulation properties
Lambda 0.040 W/mK at 40°C (EN iso 8497)
Lambda 0.036 W/mK at 0°C (EN ISO 8497)



Loading

line Truck Can be loaded be1ween
40.000--60.000 meters regarding insulation size



TWIN INSULATED COPPER TUBE


PipeDiameterinch	1/4 + 3/8	1/4 + 1/2	1/4 + 1/2	1/4 + 5/8	3/8 + 5/8	3/8 + 3/4	1/2 + 3/4
PipeThicknessmm	0,8+0,8	0,8 + 0,8	0,8 + 0,9	0,8+ 1	0,8+ 1	0,8+ 1	0,8+ 1
InsulationThicknessmm	6-9-13-19	6-9-13-19	6-9-13-19	6-9-13-19	6-9-13-19	6-9-13-19	6-9-13-19
OperaliorPressurebar	134-89	134-72	134-84	134-62	90-62	90-52	72-52
CoilLengthmeler	15-50	15-50	15-50	15-50	15-50	15-50	15-50








PE-/INSULATED COPPER TUBE


Suitable for air conditioning, refrigeration and industrial systems. Cu-Dhp 99,9% copper pipe insulated with an expanded polyethylene tube, closed cell and an external LDPE foil. Maximum Fire Safety with self-extinguishing DiN 4102-B1, SBI BL S1DO. Nontoxic gases and resistant to external chemical agents and ultra-violet rays.

 Sustainability
Fully recyclable


 Specificities
Unique aesthetical appearance
Excellent mechanical strength

 Fire
Excellent flame extinguishing properties
SBI BL S1 DO


 Health
Produced without (H)CFC
Complies to REACH
Complies to VOC (Volatile organic components)
Complies to RoHS (Restriction of Hazardous Substances)


 Certificates
Compliant with the German EnEV
CE system 3 certified


 Service temperatures
Wide service temperature range
Minimum -80 °C
Maximum 95 °C (EN 14707)

 Additional information
Standard Thickness : 6,10,13,19

TECHNICAL SPECS	OF COPPER PIPE
Chemical Composition	99,9% Cu-Dhp
Conformity	EN 12735-1
Unit Breaking Load	Min. R=220n/mm'
Elongation%	A% min= 45%
Physical Condition	Annealed
Internal Surface	Glossy, perfectly clean, conforming ASTM B-280 legislation
Heat Conduction at 20° C	364W/mK
Condition	Sealed ends, dehumidified

 Water
Closed cell structure for good water vapor barrier
Water vapor resistance μ -value ≥ 5000 (EN13469)
Water absorption WS05 (EN 13472)

 Insulation
Semi-flexible thermoplastic foam
Excellent insulation properties
Lambda 0.040 W/mK at 40° C (EN iso 8497)
Lambda 0.036 W/mK at 0° c (EN iso 8497)

 Loading
Line Truck Can be loaded between
40.000-60.000 meters regarding insulation size



SINGLE SIZE INSULATED COPPER TUBE

Pipe Diameter inch	1/4	3/8	1/2	1/2	5/8	3/4	7/8
Pipe Thickness mm	0,8	0,8	0,8	0,9	1	1	1,2
Insulation Thickness mm	6-9-13-19	6-9-13-19	6-9-13-19	6-9-13-19	6-9-13-19	6-9-13-19	6-9-13-19
Operation Pressure bar	134	89	72	84	62	52	42
Coil Length meter	15/50	15/50	15/50	15/50	15/50	15/50	15/50





PE-INSULATED COPPER TUBE

Suitable for air conditioning, refrigeration and industrial systems. Cu-Dhp 99,9% copper pipe insulated with an expanded polyethylene tube, a closed cell and an external LDPE foil. Maximum Fire Safety with self-extinguishing DiN 4102-B1, SBI BL S100. Nontoxic gases and resistant to external chemical agents and ultra-violet rays.



Sustainability

Fully recyclable
Environmental Product Declaration (EPD) available



Fire

Excellent flame extinguishing properties
BS 476 part 6 class 0
DiN 4102 B1
SBI BL, s1, d0
IMO FTP Code res. MSC.61(67) smoke generation according to ISO 5659-2 (1994)
ASTM E 84 25/50 • UL 94



Health

Produced without (H)CFC • Complies to REACH
Complies to VOC (Volatile organic compounds)
Complies to RoHS (Restriction of Hazardous Substances)



Certificates

CE system 1 certified (including 3rd party control)
Bureau Veritas approved for shipbuilding
Approved for Airbus



Service temperatures

Wide service temperature range
Minimum -30°C • Maximum 95°C (EN 14707)



Additional information

Standard Thickness : 6, 10, 13, 19

TECHNICAL SPECS OF COPPER PIPE

Chemical Composition	99,9% Cu-Dhp
Conformity	EN 12735-1
Unit Breaking Load	Min. R=220n/mm ²
Elongation%	A% min = 45%
Physical Condition	Annealed
Internal Surface	Glossy, perfectly clean, conforming to ASTM B-280 legislation
Heat Conduction at 20°C	364W/mK
Condition	Sealed ends, dehumidified



UV UV resistance tested per ISO 4895-2 Xenon-arc

Water

Classified structure for excellent water vapor barrier
Water vapor resistance M-value ≥ 10.000 (EN 13469)
Water absorption WS01 (EN 13472)



Insulation

Flexible thermoplastic foam
Excellent insulation properties
Lambda 0.038 W/mK at 40°C (EN ISO 8497)
Lambda 0.034 W/mK at 0°C (EN ISO 8497)

Loading

One Thick Can be loaded between 40.000-60.000 meters regarding insulation size



SINGLE SIZE INSULATED COPPER TUBE

Pipe Diameter inch	1/4	3/8	1/2	1/2	5/8	3/4	7/8
Pipe Thickness mm	0,8	0,8	0,8	0,9	1	1	1,2
Insulation Thickness mm	6-9-13-19	6-9-13-19	6-9-13-19	6-9-13-19	6-9-13-19	6-9-13-19	6-9-13-19
Operation Pressure bar	134	89	72	84	62	52	42
Coil Length meter	15/50	15/50	15/50	15/50	15/50	15/50	15/50





PE-INSULATED COPPER TUBE

Suitable for air conditioning, refrigeration and *industrial* systems. Cu-Ohp 99,9% copper pipe insulated with an expanded polyethylene tube, closed cell and an external LDPE foil. Maximum Fire Safety with self-extinguishing DiN 4102-B1, SBI BL S100. Nontoxic gases and resistant to external chemical agents and ultra-violet rays.



Sustainability

Fully recyclable
Environmental Product Declaration (EPD) available



Fire

Excellent flame extinguishing properties
BS 476 part 6 class 0
DiN 4102 B1
SBI BL, s1, d0
IMO FrP Code res. MSC.61 (67) smoke generation according ISO 5659-2 (1994)
ASTM E 84 25/50 • UL 94



Health

Produced without (H)CFC • Complies to REACH
Complies to VOC (Volatile organic components)
Complies to RoHS (Restriction of Hazardous Substances)



Certificates

CE system 1 certified (including 3rd party control)
Bureau Veritas approved for shipbuilding
Approved for Airbus



Service temperatures

Wide service temperature range
Minimum -80 °C - Maximum 95 °C (EN 14707)



Additional information

Standard Thickness: 6,10,13,19

TECHNICAL SPECS OF COPPER PIPE

Chemical Composition	99,9% Cu-Dhp
Conformity	EN 12735-1
Unit Breaking Load	Min. R=220n/mm ²
Elongation%	A% min= 45%
Physical Condition	Annealed
Internal Surface	Glossy, perfectly clean, conforming ASTM B-280 legislation
Heat Conduction at 20°C	364W/mK
Condition	Sealed ends, dehumidified



UV UV resistance tested
per ISO 4895-2 Xenon-arc

Water

Closed cell structure for excellent water vapor barrier
Water vapor resistance M -value ≥ 10.000 (EN 13469)
Water absorption WS01 (EN 13472)



Insulation

Flexible thermoplastic foam
Excellent insulation properties
Lambda 0.038 W/mK at 40 °C (EN 15497)
Lambda 0.034 W/mK at 0 °C (EN 15497)



Loading

One truck can be loaded between
40.000-60.000 meters regarding insulation size



TWIN INSULATED COPPER TUBE

PipeDiameterinch	1/4 + 3/8	1/4 + 1/2	1/4 + 1/2	1/4 + 5/8	3/8 + 5/8	3/8 + 3/4	1/2 + 3/4
PipeThicknessmm	0,8+0,8	0,8 + 0,8	0,8 + 0,9	0,8 + 1	0,8 + 1	0,8 + 1	0,8 + 1
InsulationThicknessmm	6-9-13-19	6-9-13-19	6-9-13-19	6-9-13-19	6-9-13-19	6-9-13-19	6-9-13-19
OperationPressurebar	134-89	134-72	134-84	134-62	90-62	90-52	72-52
CoilLengthmeter	15-50	15-50	15-50	15-50	15-50	15-50	15-50





RUBBER FOAM INSULATED COPPER TUBE

Effective solutions for cooling, air conditioning and industrial systems. Gets a maximum saving with low coefficient of thermal conductivity (0,034W/mK). Maximum Fire Safety with EN 13501-1 B-s2 d0. Nontoxic gases and smokes during the fire. Rubber Insulated Copper Tube is suitable for food industry, subways and submarines. Environmentally friendly, not contain HCFC - GFC.

TECHNICAL SPECS OF RUBBER INSULATION

Heat Transfer Coefficient EN 12667	0,030W/mK(-20°C)
	0,034 W/mK (0°C)
	0,035W/mK(+25°C)
Water Vapor Diffusion Resistance Coefficient EN 13469(μ)	> 7.000
Fire Classification EN 13501-1	B-s2-d0
Fire Classification BS476	classo
Corrosion Risk	DiN1988/7 Certified
Temperature Resistance °C	- 200 / + 116(Pipe)

TECHNICAL SPECS OF COPPER PIPE

Chemical Composition	99,9% CuDhp
Conformity	EN 12735-1
Unit Breaking Load	Min. R=220n/mm²
Elongation%	A5 min= 40%
Physical Condition	Annealed
Internal Surface	Glossy, perfectly clean, conforming ASTM 8-280 legislation
Heat Conduction at 20°C	364W/mK
Condition	Sealed ends, dehumidified

• Loading
 ○ ○ One Truck Can be loaded between
 40.000-60.000 meters regarding insulation size



RUBBER FOAM INSULATED COPPER TUBE

Pipe Diameter inch	1/4	3/8	1/2	1/2	5/8	3/4	7/8
Pipe Thickness mm	0,8	0,8	0,81	0,9	1	1	1,2
Insulation Thickness mm	6/9/13	6/9/13	6/9/13	6/9/13	6/9/13	6/9/13	6/9/13
Operation Pressure bar	134	95	72	84	70	58	52
Coil Length meter	15-50	15-50	15-50	15-50	15-50	15-50	15-50





PE - INSULATED COPPER TUBE - MONTAGE KIT

ideal solution for air conditioning and refrigeration systems: Ottocool "Ready to Use" Montage Kit. Closed-cell expanded Polyethylene. Gets a Maximum saving with low coefficient of thermal conductivity (0,036 W/mK). Maximum Fire Safety with self-extinguishing CL. 1 - DIN4102 B2. White external extruded PE-Layer, nontoxic gases and resistant to external chemical agents and ultra-violet rays.

TECHNICAL SPECS OF PE INSULATION

Heat Conductivity Coefficient DIN 52613 and 52612	0,036 W/mK (0°C)
Water Vapor Diffusion Resistance Coefficient (μ)	>5000
Fire Classification DIN 4102-82	Class 1
Insulation density	35 kg/m ³
Operating Temperature Range	-80°C / + 95°C

TECHNICAL SPECS OF COPPER PIPE

Chemical Composition	99,9% Cu-Dhp
Conformity	EN 12735-1
Unit Breaking Load	Min. R=220n/mm ²
Ekingation%	A% min = 45%
Physical Condition	Annealed
Internal Surface	Glossy, perfectly clean, conforming ASTM 8-280 legislation
Heat Conduction at 20° C	364W/mK
Condition	Sealed ends, dehumidified



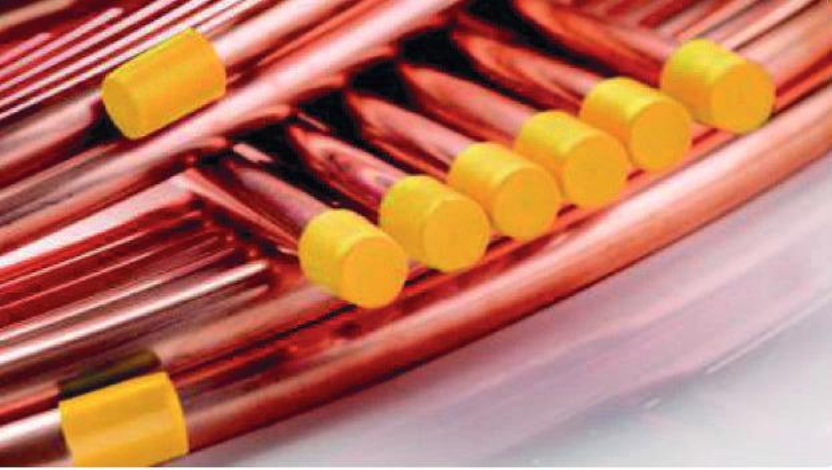
COPPER FITTINGS

Copper Fittings provide ideal solutions for Health Care Facilities Gas and Vacuum Systems and the Compressed Gas Association, Pamphlet with the Standards ANSI/ASME 816.22 and EN 12541.

Metrical diameter: Sizes varies between 6mm and 133mm

Inch diameter: Sizes varies between 1/4" and 4.1/8"





MEDICAL COPPER TUBES

The *Medical Copper Tube (Cu-Dhp 99,9%)* is suitable for medical/gas system, gas mixture, air system and vacuum systems as well as anesthetic evacuation gases in accordance with the corresponding standards. Medical Copper Tube is subjected to a rigorous internal cleaning process according to the technical specifications provided by the EN 13348.

Medical Copper Tube According to EN 13348

Diameter (mm)	Wall Thickness (mm)	Packing
8	1,00	
10	0,60	
10	1,00	straight
12	0,60	lengths
12	1,00	of 5m
15	0,70	
15	1,00	
22	1,00	
22	1,50	
28	1,00	

Diameter (mm)	Wall Thickness (mm)	Packing
28	1,50	
35	1,00	
35	1,50	straight
42	1,00	lengths
42	1,50	of 5m
54	1,50	
54	2,00	
76	1,50	
76	2,00	
108	2,50	

Refrigerant



Refrigerant



Refrigerant



Refrigerant



Refrigerant



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