



COPPER TUBES

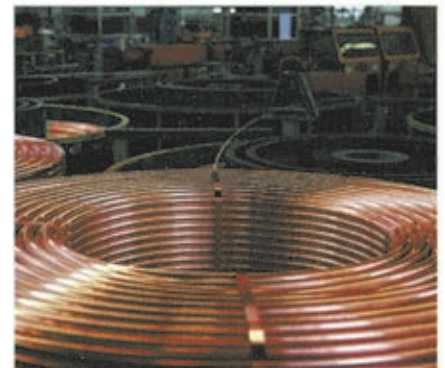
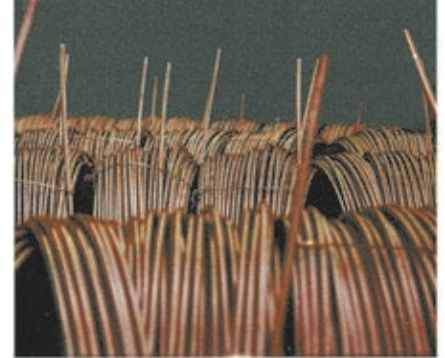
The highly conductive tube variant

Copper tubes – Being a comparatively soft metal, copper is mouldable, ductile and most of all an outstanding thermal and electrical conductor. Because of its excellent thermal conductivity and its broad range of applications, copper has been an integral part of our product range for the electrical and sanitary industries for years. It is also of importance in the automotive and HVAC&R fields.

Each year we produce more than 10.000 tube variants. With product innovations such as the "tube-in-tube"-system, we offer our customers solutions in the most diverse industrial branches and for all kinds of tasks.

We deliver serial products with diameters ranging from 1 to 54 mm in large batches as well as individual solutions for single customers.

As coils or in straight lengths, in various hardness conditions and alloys, either round or inner, respectively outer, profiled – within the multitude of our tube variants you too will find the product suited to your needs.



Dimensions

Cu- and CuNi-alloys

Alloy	Outside diameter [mm]	Wall thickness [mm]	Straight lengths [mm]	Bunch coils [kg]	Level-wound coils [kg]
Cu-DHP (SF-Cu)	2,0 - 54,0	0,15 - 4,00	50 - 6000		
Cu-DHP (SF-Cu)	1,2 - 7,0	0,15 - 1,50		5,0 - 50,0	
Cu-DHP (SF-Cu)	5,0 - 19,0	0,30 - 2,00			max. approx. 100
Cu-HCP (SE-Cu)	2,0 - 54,0	0,15 - 4,00	50 - 6000		max. approx. 100
Cu-HCP (SE-Cu)	1,2 - 7,0	0,15 - 1,50		5,0 - 50,0	
Cu-HCP (SE-Cu)	5,0 - 19,0	0,30 - 2,00			max. approx. 100
CuAg0,03	3,0 - 54,0	0,80 - 4,00	120 - 6000		
CuNi10Fe1Mn	2,0 - 19,0	0,25 - 1,00	50 - 6000	5,0 - 25,0	max. approx. 100
CuNi20	2,0 - 19,0	0,25 - 1,00	50 - 6000	5,0 - 25,0	max. approx. 100
CuNi30Mn1Fe	4,5 - 19,0	0,25 - 1,20	50 - 6000		

Further alloys, dimensions and mechanical data on request.



Profiles



Mechanical properties Cu-/CuNi-alloys (according to DIN 12449)

Alloy	Numerical	Temper		Rp _{0,2} min [MPa]	Rp _{0,2} max [MPa]	Rm min [MPa]	Rm max [MPa]	A5 min [%]
Cu-DHP	CW024A	R200	soft	-	110	200	-	40
		-	1/8 hard	80	120	220	-	30
		R250	1/2 hard	150	-	250	-	20
		R290	hard	250	-	290	-	5
		R360	spring-hard	320	-	360	-	-
Very good welding and brazing properties.								
Cu-HCP	CW021A	R200	soft	-	120	200	250	40
		R250	1/2 hard	150	-	250	300	15
		R290	hard	250	-	290	360	6
		R360	spring-hard	320	-	360	-	3
Very high electrical and thermal conductivity. Good corrosion resistance. Good welding and brazing properties. According to DIN EN 13600.								
CuAg0,03	not normed	F30	hard	250	-	300	360	7
		F37	spring-hard	320	-	360	-	3
According to DIN 17666.								
CuNi10Fe1Mn	CW352H	R290	soft	90	-	290	-	30
		R310	1/2 hard	220	-	310	-	12
		R480	hard	400	-	480	-	8
CuNi20	not normed	F30	soft	-	-	300	-	40
		F36	1/2 hard	-	-	360	-	28
According to DIN 17664.								
CuNi30Mn1Fe	CW354H	R370	soft	120	-	370	-	35
		R480	hard	300	-	480	-	12