ICE COPPER TUBE

silmet S.P.A.

ICE, the ideal choice for refrigeration and air-conditioning plants.

Manufactured according to the most modern technologies available on today's world market, in observance of European standard EN 12735-1, it is the result of scientific studies and tests that guarantee maximum compatibility with the latest generation of cooling liquids available on the market.

EN 12735-1
Copper and copper alloys – Seamless, round copper tubes for air conditioning and refrigeration – Tubes for piping systems

TECHNICAL CHARACTERISTICS OF ICE COPPER TUBE

Alloy – Rif. EN 1976	Cu-DHP CW024A (Cu = 99,90% min. - P = 0,015 ÷ 0,040%)		
Physical state according to EN 12735-1	Annealed R220	Half-Hard R250	Hard R290
Unit tensile strength – R min.	220 N/mm²	250 N/mm²	290 N/mm²
Percentage elongation – A min.	40%	20% o 30%	3%
Total carbon	C ≤ 0,20 mg/dm², lower than expected to standard EN 12735-1		
Internal surface	glossy		
Marking on tube[1]	SILMET EN 12735-1 Cu 99.9 Ø X wt year quarter III[2] ICE ⧺[2] ICE		
Dimensions and tolerances	According to EN 12735-1 standard		
Internal surface roughness	RA - 1/10 di micron		
Linear thermal expansion coefficient	0,00168 mm/m °C		
Thermal conductivity at 20°C	364 W/m · K		
[1] Products with marking, dimensional tolerances and various lengths can be prepared on specific Customer request.			
[2] the symbol ⧺ is present only in the half-hard physical state			

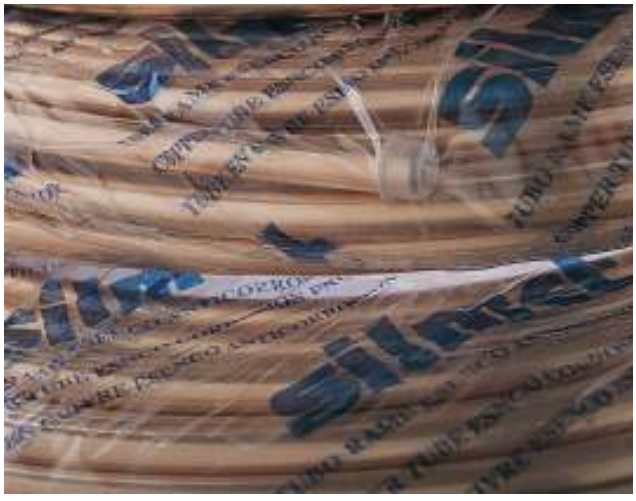

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TABLE OF DIMENSIONS

external nominal diameter *d*			nominal thickness e mm						
metric series	imperial series								
mm	mm	in	0,8	1	1,25	1,5	1,65	2	2,5
	3,18	1/8	●						
	3,97	5/32	●	●					
	4,76	3/16	●						
6			▬●	●					
	6,35	1/4	●	●					
	7,94	5/16	●	●					
8			▬●	●					
	9,52	3/8	●	●					
10			▬●	▬●					
12				▬●					
	12,70	1/2	●	▬●					
15				▬●					
	15,87	5/8		▬●					
18				▬●					
	19,05	3/4		●	▬				
22				▬●					
	22,22	7/8		●	▬				
	25,40	1		▬					
28						▬			
	28,57	1 1/8		▬	▬				
	34,92	1 3/8			▬				
35						▬			
	41,27	1 5/8			▬				
42						▬			
	53,97	2 1/8			▬		▬		
54								▬	
64								▬	
	66,67	2 5/8			▬		▬	▬	
76,1								▬	
	79,37	3 1/8					▬		▬
	88,90	3 1/2						▬	
	92,07	3 5/8					▬		▬
	104,77	4 1/8					▬		▬
108									▬
133									▬
▬	straight lengths								
●	coils								

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STANDARD DIMENSIONS - THICKNESS 0.80 mm – COILS

diameter mm	diameter in	thickness mm	water content/m l/m	bursting pressure MPa	operating pressure MPa
6,00	-	0,80	0,0152	59,84	14,96
6,35	1/4	0,80	0,0177	56,54	14,14
7,94	5/16	0,80	0,0316	45,22	11,30
8,00	-	0,80	0,0322	44,88	11,22
9,52	3/8	0,80	0,0493	37,71	9,43
10,00	-	0,80	0,0554	35,90	8,98
12,00	-	0,80	0,0849	29,92	7,48
12,70	1/2	0,80	0,0968	28,27	7,07

STANDARD DIMENSIONS - THICKNESS 1.00 mm – COILS

diameter mm	diameter in	thickness mm	water content/m l/m	bursting pressure MPa	operating pressure MPa
6,00	-	1,00	0,0126	74,80	18,70
6,35	1/4	1,00	0,0149	70,68	17,67
7,94	5/16	1,00	0,0277	56,52	14,13
8,00	-	1,00	0,0283	56,10	14,03
9,52	3/8	1,00	0,0444	47,14	11,79
10,00	-	1,00	0,0503	44,88	11,22
12,00	-	1,00	0,0785	37,40	9,35
12,70	1/2	1,00	0,0899	35,34	8,83
15,00	-	1,00	0,1327	29,92	7,48
15,87	5/8	1,00	0,1511	28,28	7,07
18,00	-	1,00	0,2011	24,93	6,23
19,05	3/4	1,00	0,2286	23,55	5,89
22,00	-	1,00	0,3142	20,40	5,10

PALLETISATION

diameter mm	diameter in	thickness mm	coils per pallet n	meters per pallet m	approx. gross weight kg
6,00	-	0,80	44	2.200	274
6,35	1/4	0,80	44	2.200	300
7,94	5/16	0,80	36	1.800	333
8,00	-	0,80	36	1.800	304
9,52	3/8	0,80	28	1.400	298
10,00	-	0,80	28	1.400	302
12,00	-	0,80	22	1.100	289
12,70	1/2	0,80	20	1.000	287
6,00	-	1,00	44	2.200	339
6,35	1/4	1,00	44	2.200	361
7,94	5/16	1,00	36	1.800	380
8,00	-	1,00	36	1.800	383
9,52	3/8	1,00	28	1.400	364
10,00	-	1,00	28	1.400	383
12,00	-	1,00	22	1.100	368
12,70	1/2	1,00	20	1.000	354
15,00	-	1,00	18	900	379
15,87	5/8	1,00	16	800	359
18,00	-	1,00	14	700	357
19,05	3/4	1,00	10	500	277
22,00	-	1,00	14*	350*	230

* meter coils