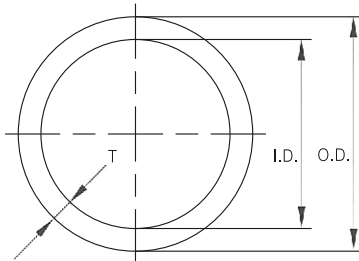


Cu-Ni 90/10
Seamless & Welded Pipes



Pipe



Seamless Pipe

Seamless TTS CuNi 90/10 to EEMUA Publication No.144 : Section 1.

Outside Diameter (O.D.)

Tube sizes 1/2" / 16mm to 4" / 108mm conform to BS 2871: Part2: Table 3 and EEMUA Publication No.144 : Section 1.

Inside Diameter (I.D.)

Tube sizes 6" / 159mm and up, conform to EEMUA Publication No. 144 : Section 1.

Wall Thickness (T)

Wall thicknesses conform to EEMUA offshore requirements for 16 and 20 bar systems. In addition the wall thicknesses for a 10 bar and 14 bar system are also indicated for pipes only.

Condition

"O" annealed properties to BS 2871 : Part 2 and EEMUA Publication.

Seam-Welded Pipe

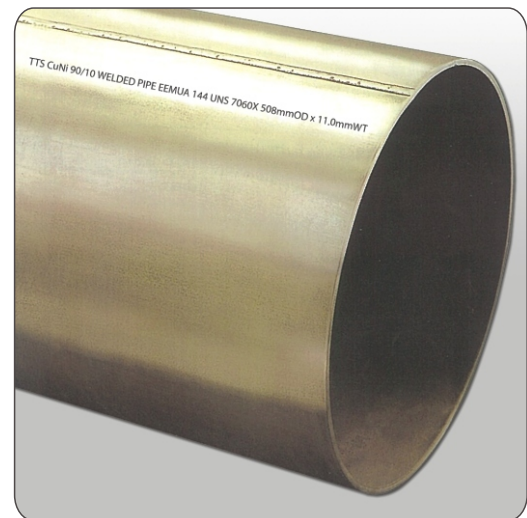
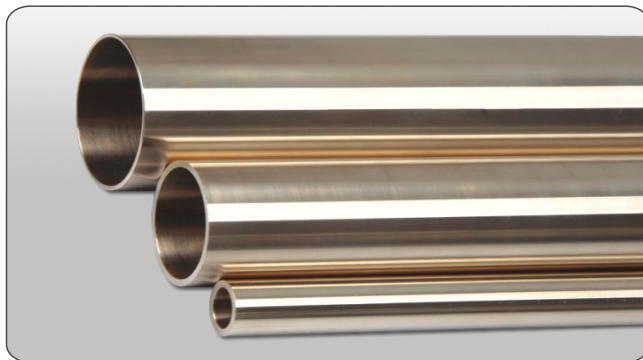
Seam-Welded TTS CuNi 90/10 to EEMUA Publication No.144 : Section 2.

Condition (Parent Sheet / Plate)

"O" annealed properties to BS 2870/2875 and EEMUA Publication.

Inspection of Welds

100% radiographic inspection to ASME Code, Section VIII, UW 51.



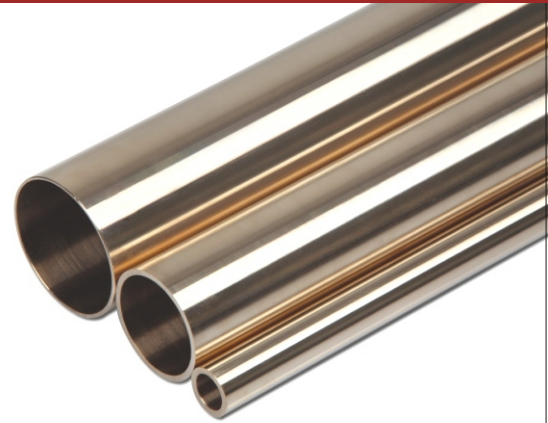
Comparison of Standard Specifications for CuNi 90/10

	TTS Alloy	DIN 17664 2.0872	DIN 86019 2.1972	BS 2871 CN 102	EEMUA 144-1987 UNS 7060X	MIL-T-16420K ASTM B 466 C70600	JIS H 3300 C7060T
Ni %	10.0 - 11.0	9.0 - 11.0	9.0 - 11.0	10.0 - 11.0	10.0 - 11.0	9.0 - 11.0	9.0 - 11.0
Fe %	1.5 - 1.8	1.0 - 2.0	1.5 - 1.8	1.0 - 2.0	1.5 - 2.0	1.0 - 1.8	1.0 - 1.8
Mn %	0.6 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	max. 1.0	0.2 - 1.0
C %	max. 0.05	max. 0.05	max. 0.05	max. 0.05	max. 0.05	max. 0.05	
Pb %	max. 0.01	max. 0.03	max. 0.01	max. 0.01	max. 0.01	max. 0.02	max. 0.05
S %	max. 0.005	max. 0.02	max. 0.005	max. 0.05	max. 0.02	max. 0.02	
P %	max. 0.02	max. 0.02	max. 0.02		max. 0.02	max. 0.02	
Zn %	max. 0.05	max. 0.50	max. 0.05		max. 0.20	max. 0.50	max. 0.50
other imp. %	max. 0.20	max. 0.30	max. 0.20	max. 0.30	max. 0.30		
Cu %	rem.	rem.	rem.	rem.	rem.	rem.	+Ni+Fe+Mn min. 99.5

European Standards

Outside diameter of pipe ØD			10bar		14bar		16bar		20bar	
nominal		actual	Wall thickness	Theoretical weight	Wall thickness	Theoretical weight	Wall thickness	Theoretical weight	Wall thickness	Theoretical weight
inch	ND	mm	actual mm	Kg/m	actual mm	Kg/m	actual mm	Kg/m	actual mm	Kg/m
SEAMLESS										
1/8		10	1.0	0.26	1.0	0.26	1.0	0.26	1.0	0.26
1/4		12	1.0	0.31	1.0	0.31	1.0	0.31	1.0	0.31
3/8	10	16	1.0	0.42	1.0	0.42	2.0	0.79	2.0	0.79
1/2	15	20	1.0	0.53	1.5	0.53	2.0	1.01	2.0	1.01
3/4	20	25	1.5	0.99	1.5	0.99	2.0	1.30	2.0	1.30
1	25	30	1.5	1.20	1.5	1.20	2.5	1.93	2.5	1.93
1 1/4	32	38	1.5	1.54	1.5	1.54	2.5	2.50	2.5	2.50
1 1/2	40	44.5	1.5	1.81	1.5	1.81	2.5	2.95	2.5	2.95
2	50	57	1.5	2.34	1.5	2.34	2.5	3.83	2.5	3.83
2 1/2	65	76.1	2.0	4.16	2.0	4.16	2.5	5.17	2.5	5.17
3	80	88.9	2.0	4.88	2.5	6.07	2.5	6.07	2.5	6.07
4	100	108	2.5	7.41	2.5	7.41	3.0	8.85	3.0	8.85
5	125	133	2.5	9.16	2.5	9.16	3.0	10.95	3.0	10.95
6	150	159	2.5	10.99	2.5	10.99	3.0	13.14	3.5	15.29
7	175	193.7	3.0	16.07	3.5	18.70	3.5	18.70	3.5	18.70
8	200	219.1	3.0	18.21	3.5	21.19	4.0	24.17	4.5	27.12
10	250	267	3.0	22.24	4.0	29.55	4.5	33.18	5.5	40.39
12	300	323.9	4.0	35.94	5.0	44.78	5.5	49.18	7.0	62.30
14	350	368	4.0	40.89	5.5	56.00	6.5	65.99	8.0	80.89
SEAM WELDED										
16	400	419	4.0	46.62	6.0	69.60	7.0	81.00	9.0	103.64
18	450	457.2	4.0	50.91	7.0	88.20	8.0	100.93	9.5	119.45
20	500	508	4.5	63.63	7.5	105.10	8.5	119.24	11.0	153.54
24	600	610	5.0	84.96	9.0	151.40	10.5	176.79	13.0	217.97
28	700	711	6.0	118.80	10.5	205.90	12.0	235.58	15.0	293.22
32	800	813	6.0	135.99	12.0	269.10	13.5	303.14	17.0	380.06
36	900	914	8.0	203.57	13.5	340.40	15.5	391.14	19.0	477.60

U.S Standards



Outside diameter of pipe ØD			Wall thickness		Theoretical weight	
nominal inch	actual inch	actual mm	actual inch	actual mm	Lb/Ft	Kg/m
SEAMLESS						
1/8	0.405	10.29	0.058	1.47	0.24	0.36
1/4	0.540	13.72	0.065	1.65	0.38	0.56
3/8	0.675	17.15	0.065	1.65	0.48	0.72
1/2	0.840	21.34	0.065	1.65	0.61	0.91
3/4	1.050	26.67	0.065	1.65	0.78	1.16
1	1.315	33.40	0.065	1.65	0.99	1.47
1 1/4	1.660	42.16	0.072	1.83	1.39	2.07
1 1/2	1.900	48.26	0.072	1.83	1.60	2.39
2	2.375	60.32	0.083	2.11	2.32	3.45
2 1/2	2.875	73.03	0.083	2.11	2.82	4.20
3	3.500	88.90	0.095	2.41	3.93	5.85
3 1/2	4.000	101.60	0.095	2.41	4.51	6.71
4	4.500	114.30	0.109	2.77	5.83	8.68
5	5.563	141.30	0.125	3.18	8.29	12.34
6	6.625	168.30	0.134	3.40	10.58	15.75
8	8.625	219.10	0.134	3.40	13.83	20.59
10	10.750	273.05	0.134	3.40	17.29	25.74
12	12.750	323.90	0.156	3.96	23.90	35.58
14	14.000	355.60	0.165	4.19	27.78	41.35
SEAM WELDED						
16	16.000	406.40	0.165	4.19	31.80	47.33
18	18.000	457.20	0.180	4.57	39.03	58.10
20	20.000	508.00	0.180	4.57	43.41	64.62
24	24.000	609.60	0.180	4.57	52.17	77.66
30	30.000	762.00	0.250	6.35	90.54	134.77

U.S Standards

Outside diameter of pipe ØD			Schedule 5S				Schedule 10S			
			Wall thickness		Theoretical weight		Wall thickness		Theoretical weight	
nominal inch	actual inch	actual mm	actual inch	mm	Lb/Ft	Kg/m	actual inch	mm	Lb/Ft	Kg/m
SEAMLESS										
1/8	0.405	10.29					0.049	1.24	0.19	0.28
1/4	0.540	13.72					0.065	1.65	0.33	0.49
3/8	0.675	17.15					0.065	1.65	0.42	0.63
1/2	0.840	21.34	0.065	1.65	0.54	0.80	0.083	2.11	0.67	1.00
3/4	1.050	26.67	0.065	1.65	0.69	1.03	0.083	2.11	0.86	1.28
1	1.315	33.40	0.065	1.65	0.87	1.30	0.109	2.77	1.40	2.09
1 1/4	1.660	42.16	0.065	1.65	1.11	1.65	0.109	2.77	1.81	2.70
1 1/2	1.900	48.26	0.065	1.65	1.28	1.91	0.109	2.77	2.09	3.11
2	2.375	60.32	0.065	1.65	1.61	2.40	0.109	2.77	2.64	3.93
2 1/2	2.875	73.03	0.083	2.11	2.48	3.69	0.120	3.05	3.53	5.26
3	3.500	88.90	0.083	2.11	3.03	4.51	0.120	3.05	4.33	6.45
3 1/2	4.000	101.60	0.083	2.11	3.48	5.18	0.120	3.05	4.97	7.40
4	4.500	114.30	0.083	2.11	3.92	5.84	0.120	3.05	5.61	8.36
5	5.563	141.30	0.109	2.77	6.36	9.47	0.134	3.40	7.77	11.57
6	6.625	168.30	0.109	2.77	7.60	11.32	0.134	3.40	9.29	13.84
8	8.625	219.10	0.109	2.77	9.93	14.79	0.148	3.76	13.40	19.96
10	10.750	273.05	0.134	3.40	15.19	22.63	0.165	4.19	18.65	27.78
12	12.750	323.90	0.156	3.96	20.98	31.25	0.180	4.57	24.17	36.00

Outside diameter of pipe ØD			Schedule 40S				Schedule 80S			
			Wall thickness		Theoretical weight		Wall thickness		Theoretical weight	
nominal inch	actual inch	actual mm	actual inch	mm	Lb/Ft	Kg/m	actual inch	mm	Lb/Ft	Kg/m
SEAMLESS										
1/8	0.405	10.29	0.068	1.73	0.24	0.37	0.095	2.41	0.31	0.47
1/4	0.540	13.72	0.088	2.24	0.42	0.63	0.119	3.02	0.54	0.80
3/8	0.675	17.15	0.091	2.31	0.57	0.84	0.126	3.20	0.74	1.10
1/2	0.840	21.34	0.109	2.77	0.85	1.27	0.147	3.73	1.09	1.62
3/4	1.050	26.67	0.113	2.87	1.13	1.69	0.154	3.91	1.47	2.20
1	1.315	33.40	0.133	3.38	1.68	2.50	0.179	4.55	2.17	3.24
1 1/4	1.660	42.16	0.140	3.56	2.27	3.39	0.191	4.85	3.00	4.47
1 1/2	1.900	48.26	0.145	3.68	2.72	4.05	0.200	5.08	3.63	5.41
2	2.375	60.32	0.154	3.91	3.65	5.44	0.218	5.54	5.02	7.48
2 1/2	2.875	73.03	0.203	5.16	5.79	8.63	0.276	7.01	7.66	11.41
3	3.500	88.90	0.216	5.49	7.58	11.29	0.300	7.62	10.25	15.27
3 1/2	4.000	101.60	0.226	5.74	9.11	13.57	0.318	8.08	12.51	18.63
4	4.500	114.30	0.237	6.02	10.79	16.07	0.337	8.56	14.98	22.32
5	5.563	141.30	0.258	6.55	14.62	21.77	0.375	9.53	20.78	30.97
6	6.625	168.30	0.280	7.11	18.97	28.26	0.432	10.97	28.57	42.56
8	8.625	219.10	0.322	8.18	28.55	42.55	0.500	12.70	43.39	64.64
10	10.750	273.05	0.365	9.27	40.48	60.31	0.500	12.70	54.74	96.01
12	12.750	323.90	0.375	9.53	49.56	73.88	0.500	12.70	65.42	132.08

U.S Navy Standards

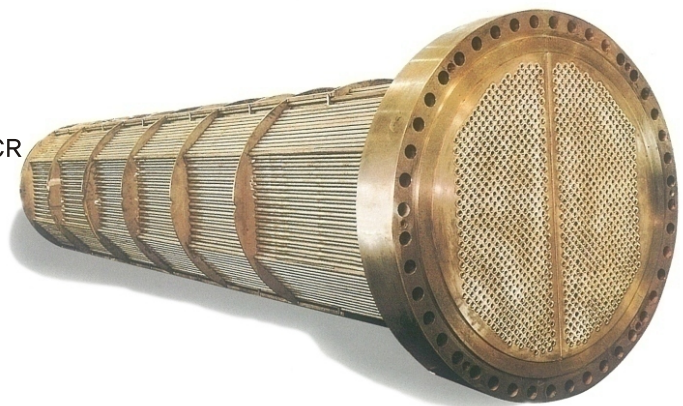
Outside diameter of pipe ØD			Class 200				Class 700			
			Minimum Wall thickness		Theoretical weight		Minimum Wall thickness		Theoretical weight	
nominal inch	actual inch	actual mm	actual inch	mm	Lb/Ft	Kg/m	actual inch	mm	Lb/Ft	Kg/m
SEAMLESS										
	0.250	6.35	0.035	0.89	0.09	0.14				
	0.500	12.70	0.035	0.89	0.20	0.29	0.065	1.65	0.34	0.51
1/8	0.540	13.72	0.065	1.65	0.38	0.56	0.065	1.65	0.38	0.56
3/8	0.675	17.15	0.065	1.65	0.48	0.72	0.072	1.83	0.53	0.79
1/2	0.840	21.34	0.065	1.65	0.61	0.91	0.072	1.83	0.67	1.00
3/4	1.050	26.67	0.065	1.65	0.78	1.16	0.083	2.11	0.98	1.45
1	1.315	33.40	0.065	1.65	0.99	1.47	0.095	2.41	1.41	2.10
1 1/4	1.660	42.16	0.072	1.83	1.39	2.07	0.095	2.41	1.81	2.69
1 1/2	1.900	48.26	0.072	1.83	1.60	2.39	0.109	2.77	2.38	3.54
2	2.375	60.32	0.083	2.11	2.32	3.45	0.120	3.05	3.30	4.91
2 1/2	2.875	73.03	0.083	2.11	2.82	4.20	0.134	3.40	4.47	6.65
3	3.500	88.90	0.095	2.41	3.93	5.85	0.165	4.19	6.70	9.97
3 1/2	4.000	101.60	0.095	2.41	4.51	6.71	0.180	4.57	8.37	12.45
4	4.500	114.30	0.109	2.77	5.83	8.68	0.203	5.15	10.61	15.78
	5.000	127.00	0.120	3.05	7.14	10.62	0.203	5.15	11.84	17.62
5	5.563	141.30	0.125	3.18	8.29	12.34	0.220	5.59	14.32	21.30
6	6.625	168.30	0.134	3.40	10.58	15.75	0.259	6.58	20.08	29.89
7	7.625	193.70	0.134	3.40	12.21	18.17	0.284	7.21	25.38	37.76
8	8.625	219.10	0.148	3.76	15.28	22.74	0.340	8.64	34.32	51.07
	9.625	244.48	0.187	4.75	21.49	31.98	0.340	8.64	38.46	57.23
10	10.750	273.05	0.187	4.75	24.05	35.79	0.380	9.65	47.96	71.37
12	12.750	323.90	0.250	6.35	38.05	56.63	0.454	11.53	67.97	101.15
SEAM WELDED										
			Class 50				Class 700			
14	14.000	355.60	0.165	4.19	27.78	41.35	0.473	12.01	77.90	115.87
	15.000	381.00					0.503	12.77	88.80	132.04
16	16.000	406.40	0.165	4.19	31.80	47.32	0.534	13.56	101.00	149.58
18	18.000	457.20	0.180	4.57	39.03	58.10				
20	20.000	508.20	0.180	4.57	43.41	64.62				
22	22.000	588.80	0.180	4.57	47.80	71.12				
	22.750	577.85	0.180	4.57	49.50	73.57				
30	30.000	762.00	0.250	6.35	90.54	134.77				
40	40.000	1016.00	0.312	7.92	150.70	224.19				

Japanese Maritime Specification

NOMINAL DIAMETER		Metric size			NAVY DIMENSION inch Size						M.M.(NDS) Size		
ND	inch	Outside diam. mm	Wall thick. mm	Theore. weight kg/m	5K			10K			Outside diam. mm	Wall thick. mm	Theore. weight kg/m
					Outside diam. mm	Wall thick. mm	Theore. weight kg/m	Outside diam. mm	Wall thick. mm	Theore. weight kg/m			
SEAMLESS													
6A	1/8							6.35	0.89	0.14			
10A	3/8	16	1.0	0.42				12.71	0.89	0.29	15	1.5	0.57
15A	1/2	20	1.0	0.53	15.14	1.21	0.47	15.14	1.65	0.62	20	1.5	0.78
20A	3/4	25	1.5	0.99	21.49	1.21	0.69	21.49	1.65	0.92	25	1.5	0.99
25A	1	30	1.5	1.20	28.25	1.42	1.07	28.25	1.65	1.23	30	1.5	1.20
32A	1 1/4	38	1.5	1.54	34.60	1.42	1.32	34.60	1.65	1.53	38	2.0	2.02
40A	1 1/2	44.5	1.5	1.81	40.95	1.42	1.58	40.95	1.83	2.01	45	2.0	2.41
50A	2	57	1.5	2.34	54.05	1.62	2.39	54.05	2.11	3.08	55	2.0	2.98
65A	2 1/2	76.1	2.0	4.16	66.75	1.62	2.96	66.75	2.41	4.35	70	2.0	3.82
80A	3	88.9	2.5	6.07	79.86	1.82	3.99	79.86	2.41	5.24	85	2.0	6.91
90A	3 1/2										95	3.0	7.75
100A	4	108	2.5	7.41	106.27	2.33	6.80	106.27	2.77	8.05	110	3.0	9.02
125A	5	133	2.5	9.16	131.67	2.33	8.46	131.67	3.18	11.47	130	3.0	10.70
150A	6	159	2.5	10.99	157.68	2.64	11.49	157.68	3.40	14.73	160	4.0	17.52
175A	7										180	4.0	19.77
200A	8	219.1	3.0	18.21	208.48	2.64	15.26	208.48	3.76	21.61	210	4.0	23.14
225A	9										230	4.0	25.39
250A	10	267	3.0	22.24	260.50	3.25	23.48	260.50	4.75	34.11	260	4.5	32.29
300A	12	323.9	4.0	35.94	312.11	3.68	31.87	312.11	6.35	54.52	310	5.5	47.03
350A	14	368	4.0	40.89									
SEAM WELDED													
400A	16	419	4.0	46.62									
450A	18	457.2	4.0	50.91									
500A	20	508	4.5	63.63									
600A	24	610	5.0	84.96									
700A	28	711	6.0	118.80									



- The tubes are produced in copper and copper alloys to national and international specifications in addition to the world-renowned TTS trade names,
- for those applications using fresh, brackish or seawater as the coolant, copper and copper alloy seamless tubes still remain a preferred choice where long-term reliability, Cost-effectiveness and proven performance are prime considerations.
- Condenser, cooler and heat exchanger plain tubes can be made in the following copper & copper alloy types ;
 - Copper
 - Copper Nickel 90/10, 70/30
 - Aluminium brass
 - Admiralty brass
 - Brass
- Applications for condenser, Heat Exchanger and ACR
 - Desalination plants
 - Power plants
 - Marine Vessels
 - Chemical, Petro-Chemical plants
 - Processing Industries



- Chemical Composition

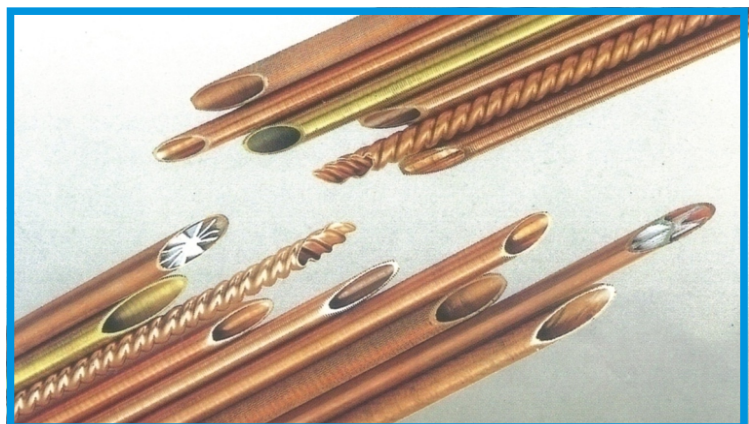
classification	class	Chemical Composition(%)											Related Standards				
		Cu	Zn	Pb	Fe	P	Sn	Ni	Mn	Al	As	Other	KS	JIS	ASTM	BS	DIN
Tough Pitch Copper	1	99.9 min.											D 5301 C 1100	H 3300 C 1100	B 88 C 11000	2871 C 101 C 102	1787 ECu58 ECu57
Phosphorus Deoxidized Copper	1A	99.9 min.				0.004-0.015							D 5301 C 1201	H 3300 C 1201	B 75 C 12000	2871 C 106	1787 SW-Cu
						0.015-0.040							C 1220	C 1220	C 12200	C 106	SF-Cu
Brass	1	68.5-71.5	Rem.	0.05 max.	0.05 max.								D 5301 C 2600	H 3300 C 2600	B 135 C 26000	2871 Cz 126	17660 CuZn30
	2	63.0-67.0	Rem.	0.05 max.	0.05 max.								C 2700	C 2700	C 27000		CuZn36
	3	59.0-63.0	Rem.	0.10 max.	0.07 max.								C 2800	C 2800	C 28000	Cz 119	CuZn40
Al-Brass	1	70.0-73.0	Rem.	0.05 max.	0.05 max.		0.9-1.2					0.02-0.06	D 5301 C 4430	H 3300 C 4430	B 111 C 44300	2871 Cz 111	1785 CuZn28Sn
	2	76.0-79.0	Rem.	0.05 max.	0.05 max.					1.8-2.5		0.02-0.06 Si 0.02-0.50	C 6871	C 6871	C 68700	Cz 110	CuZn20Al
	3	76.0-79.0	Rem.	0.05 max.	0.05 max.			0.20-1.0	0.20-max.	1.8-2.5		0.02-0.06 Cr 0.10 max.	C 6872	C 6872	C 68700	Cz 110	CuZn20Al
	4	76.0-79.0	Rem.	0.05 max.	0.05 max.					1.8-2.5		0.02-0.06	C 6870	C 6870	C 68700	Cz 110	CuZn20Al
Cu-Ni Tube	1	Rem.	0.05 max.	0.05 max.	1.0-1.8			9.0-11.0	0.20-1.0			Cu+Ni+Fe+Mn 99.5min.	D 5301 C 7060	H 3300 C 7060	B 111 C 70600	2871 CN 102	17664 CuNi10Fe
	2	Rem.	0.05 max.	0.05 max.	0.5-1.0			19.0-23.0	0.20-1.0			Cu+Ni+Fe+Mn 99.5min.	C 7100	C 7100	C 71000	CN 107	CuNi20Fe
	3	Rem.	0.05 max.	0.05 max.	0.40-1.0			29.0-33.0	0.20-1.0			Cu+Ni+Fe+Mn 99.5min.	C 7150	C 7150	C 71500	CN 106	CuNi30Mn
Copper Capillary		99.9				0.015-0.040							D 5301 C 1220	H 3300 C 1220	B 68 B 75 B 360 C 12200	2871 C 106	1787 SF-Cu

Mechanical Properties & Applications

classification	class	Alloy No.	Temper	Tensile Test				Hardness Test		Application		
				Outside diameter(mm)	Thickness (mm)	Tensile Strength	Elongation (%)	Rockwell				
								HR30T	HR15T			
Tough-pitch Copper	1	C1100T	O	5-250	0,5-30	21Min.	40Min.	-	-	Electric parts, Chemical Industry, etc.		
			1/2H	5-250	0,5-25	25-33	-	30-60	-			
			H	5-100	0,5-6 6-10	28Min. 27Min.	-	-	-			
Phosphorus Deoxidized Copper	1A	C1201T	O	4-250	0,3-30	21Min.	40Min.	-	60Max	Heat Exchanger, water/oil/gas line Air conditioning M/c, etc.		
			OL	4-250	0,3-30	21Min.	40Min.	-	65Max			
			1/2H	4-250	0,3-25	25-33	-	30-60	-			
	1B	C1220T	H	25-50	0,3-3	32Min	-	55Min.	-			
				50-100	1,5-6			-	-			
Gilding Metal	2	C2200T	O	10-150	0,5-15	23Min.	35Min.	30Max.	-	Machinery Parts, Heat Exchanger, etc.		
			OL	10-150	0,5-15	23Min.	35Min.	37Max.	-			
			1/2H	10-150	0,5-6	28Min.	15Min.	38Min.	-			
			H	10-100	0,5-6	37Min.	-	55Min.	-			
	3	C2300T	O	10-150	0,5-15	28Min.	35Min.	36Max.	-			
			1/2H	10-150	0,5-6	31Min.	20Min.	43Min.	-			
Brass	1	C2600T	O	4-250	0,3-15	28Min.	45Min.	40Max.	-	Antenna, Machinery Parts, decoration parts, hygiene line farm implements, etc.		
			OL	4-250	0,3-15	28Min.	45Min.	60Max.	-			
			1/2H	4-100	0,3-6	38Min.	20Min.	53Min.	-			
				100-250	2,0-10	36Min.	20Min.	53Min.	-			
			H	4-100	0,3-6	46Min.	-	70Min.	-			
				100-250	2,0-10	40Min.	-	70Min.	-			
	2	C2700T	O	4-250	0,3-15	30Min.	40Min.	40Max.	-			
			OL	4-250	0,3-15	30Min.	40Min.	60Max.	-			
			1/2H	4-100	0,3-6	38Min.	20Min.	53Min.	-			
	100-250	2,0-10		36Min.	20Min.	53Min.	-					
	3	C2800T	H	4-100	0,3-6	46Min.	-	70Min.	-			
				100-250	2,0-10	40Min.	-	70Min.	-			
				O	10-250	1-15	32Min.	35Min.	-		-	
	Aluminium Brass	1	C4430T	O61	5-250	0,8-10	32Min.	30Min.	-		-	Steam Power generation and Atomic Power generation condenser, etc.
		2	C6871T	O61	5-250	0,8-10	36Min.	40Min.	-		-	
3		C6872T	O61	5-250	0,8-10	36Min.	40Min.	-	-			
4		C6870T	O61	5-250	0,8-10	38Min.	40Min.	-	-			
Copper Nickel	1	C7060T	O61	5-250	0,8-5	28Min.	30Min.	-	-	Chemical Industry, Hot water heater, Fresh water generator Condenser for marine, etc.		
	2	C7100T	O61	5-50	0,8-5	32Min.	30Min.	-	-			
	3	C7150T	O61	5-50	0,8-5	37Min.	30Min.	-	-			

Other items are also available

- Rods, Bars and Bus bars
- Finned tubes
 - Low finned tube
 - inner grooved tube
 - floral tube
 - spiral tube
 - Thermoexcel tube
 - ripple tube
 - corrugated tube, etc
- Accumulators

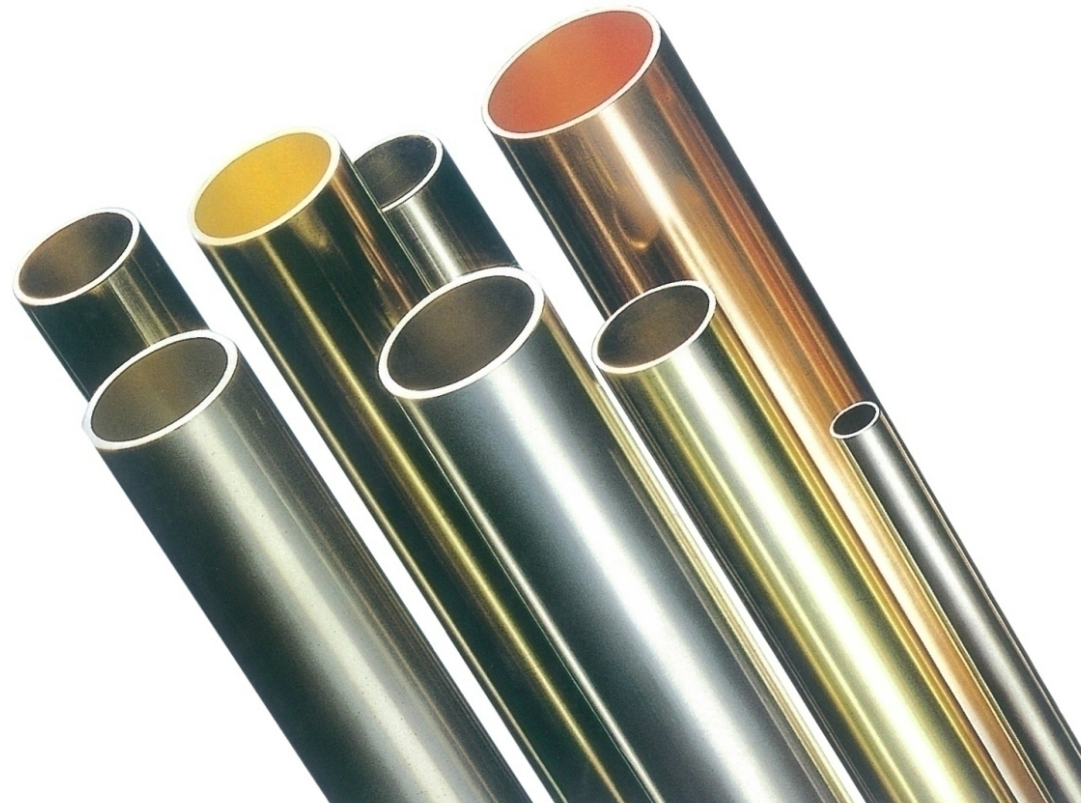


Comparable foreign standards

PRODUCTION	ALLOY NO.				
	ASTM B111	JIS H3300	BS2871 (Part2)	DIN Mat. No.	AS1569 AS1572
Copper Nickel 90/10 tube/pipe	C70600	C7060T	CN102	DIN17664 CuNi10Fe1Mn 2,0872	C70610
Copper Nickel 70/30 tube/pipe	C71500	C7150T	CN107	DIN17664 CuNi30Mn1Fe 2,0882	C71500
Copper tube/pipe	C12200	C1220T	C106	DIN1787 SFCu 2,0090	C12200
Al-Brass tube/pipe	C68700	C6870T	CZ110	DIN17660 CuZn20Al2 2,0460	C68700
Brass tube/pipe	C27000	C2700T	CZ107	DIN17660 CuZn36 2,0335	
Admiralty Brass tube/pipe	C44300	C4430T	CZ111	DIN17660 CuZn28Sn1 2,0470	C44300

Tubes Standards

※Certificates to be supplied to DIN 50049 / EN 10204 3.1B



Manufacturing Process

