

HoCoL SEAMLESS COPPER TUBE

Technical Specification

Standard	JIS H3300	
Materials Grade	C1220	
Chemical Composition	Cu (Copper) + Ag (Silver) %	≥ 99.90
	P (Phosphorus) %	0.015 – 0.040
Mechanical Properties	Temper	Annealed O - H
	Tensile Strength (Mpa)	Over 205
	Elongation (%)	Over 40 (50mm)
	Rockwell Hardness	HR15T: Below 60
	Grain Size (mm)	0.025 ~ 0.060
	Nondestructive (All: size of drill hole)	Ø 4 - 10 : 0.9 mm
		Ø 10 - 20 : 1.0 mm
		Ø 20 - 30 : 1.1 mm



The **HoCoL** seamless copper tubes are manufactured to various of outside diameter and thickness combination to meet the desired application in air conditioning industry. The input materials are entirely used the Cathode Copper purity 99.90% to ensure a de-oxidizing atmosphere to enable correct soldering and brazing.

Eddy Current Testing

HoCoL seamless copper tubes integrity is well defined by fact that all tubes meet the standard of ASTM E243 or JIS H0502 and conduct 100% eddy current tested to ensure Free Defect or leakage detrimental to practical use.

Micro Structure

The grain size is tested as the standard of JIS H 0501 to ensuring the **HoCoL** seamless copper tubes do not crack when being brazed, bent or expanded.

Other Lab Facilities

HoCoL Seamless copper tubes also comprehensive in-house lab facilities to measure other important scope such as :

- Chemical Composition
- Mechanical Properties and Physical Properties Test (Ultimate Tensile Strength, Yield Strength Hardness and Elongation)
- Flareability
- Flattenability
- Non-Destructive
- Hydrostatic

Safe Working Pressure Calculation

The safe working pressure for **HoCoL** seamless copper tubes have engineered from the temperature range from 40°C to 200°C for various tube temper (O or H).

Formulation for Safe Working Pressure Calculation :

$$P = \frac{2S \times t}{D - 0.8t}$$

P : Test Hydrostatic Pressure (Mpa)
S : Design Stress Value
t : Minimum Wall Thickness, mm
D : Outer Diameter, mm

Note:

1 bar = 14.5 psi

1 bar = 0.1 Mpa

1 Mpa = 145 psi

S = 41 N/mm²

The calculation provided as references, kindly contact Superlon for precise calculations.

HoCoL SEAMLESS COPPER TUBE

Standard Dimension Seamless Copper Tube

Pancake Copper Coil		JIS H3300 C1220-O				Length (m)	Packing Coil / Ctn
Outside Diameter		Wall Thickness (mm)					
Inch	mm	0.61	0.71	0.81	0.91		
1/4"	6.35	0	0	0	0	15	12
3/8"	9.52	0	0	0	0	15	9
1/2"	12.70	0	0	0	0	15	7
5/8"	15.88	0	0	0	0	15	5
3/4"	19.05	0	0	0	0	15	4
Copper Straight Pipe		JIS H3300 C1220-H				Length (m)	Packing Coil / Ctn
Outside Diameter		Wall Thickness (mm)					
Inch	mm	0.71	0.81	0.91	1.02	1.22	
1/4"	6.35	0	0	0	0	0	5.8
3/8"	9.52	0	0	0	0	0	5.8
1/2"	12.70	0	0	0	0	0	5.8
5/8"	15.88	0	0	0	0	0	5.8
3/4"	19.05	0	0	0	0	0	5.8
7/8 "	22.22	0	0	0	0	0	5.8
1 "	25.40	0	0	0	0	0	5.8
1 1/8"	28.58	0	0	0	0	0	5.8
1 1/4"	31.75	0	0	0	0	0	5.8
1 3/8"	34.93	0	0	0	0	0	5.8
1 1/2"	38.10	0	0	0	0	0	5.8
1 5/8"	41.28	0	0	0	0	0	5.8
2 1/8"	53.98			0	0	0	5.8

Note: Sizes with marking "o" indicate those are common sizes to be supplied. Odd sizes with special requirements can be tailor-made against order. Kindly contact SUPERLON for further information.



COPPER FITTINGS ASME B 16.22



COUPLING C x C

SIZE	PACKING (PCS / BAG)
1/4"	25
3/8"	25
1/2"	25
5/8"	25
3/4"	25
7/8"	25
1"	10
1 1/8"	10
1 1/4"	10
1 3/8"	10
1 5/8"	10
2 1/8"	2
2 5/8"	2
3 1/8"	2



90° ELBOW C x C

SIZE	PACKING (PCS / BAG)
1/4"	25
3/8"	25
1/2"	25
5/8"	25
3/4"	25
7/8"	25
1"	10
1 1/8"	10
1 1/4"	10
1 3/8"	10
1 5/8"	10
2 1/8"	2
2 5/8"	2
3 1/8"	2



45° ELBOW C x C

SIZE	PACKING (PCS / BAG)
1/4"	25
3/8"	25
1/2"	25
5/8"	25
3/4"	25
7/8"	25
1 1/8"	10
1 3/8"	10
1 5/8"	10
2 1/8"	2
2 5/8"	2
3 1/8"	2

SUPERLON SOLUTIONS SDN BHD

LOT 2567, JALAN SG JATI, 41200 KLANG,
SELANGOR, MALAYSIA.
TEL NO.: +603-3382 1688
FAX NO.: +603-3381 5788
Email : inquiry@superlon.com.my
Website : www.superlon.com.my

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HoCoL SEAMLESS COPPER TUBE



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