GeVeR®
PRE-INSULATED COPPER TUBE
ASTM B280 and JIS H3300

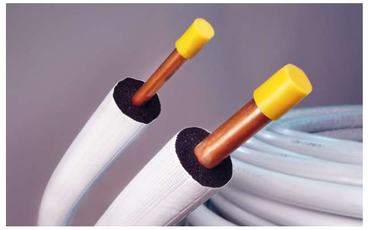
- AIR CONDITIONING
- REFRIGERATION

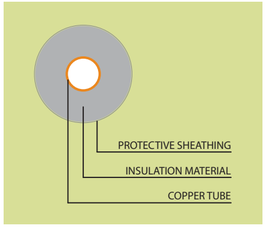
GEVER® Pre-Insulated Copper Tubes are advanced technological products of high added value and significantly superior in effectiveness compared to conventional insulation methods. Suitable for use with new generation refrigerants in the Air Conditioning and Refrigeration fields. **GEVER®** Tube Insulation is manufactured from closed cell polyethylene foam with 10mm thickness. The exterior embossed polyethylene film is stronger and more resistant to abrasion than traditional materials, enabling ease to pass through tight spaces without being torn.

Benefits Of Using Gever Pre-Insulated Copper Tube

- Easy Installation
- Significant and continuous savings
- Safe network operation
- Reduction of installation time
- Continuous coil reduces product waste
- Ease of forming
- Minimize of condensation because of jointing
- 10mm insulation thickness to prevent condensation
- Easy to bend and easily separated

Copper Pipe Technical Properties		
Description	Value	Unit
Copper Alloy No	C12200	
Copper (min)	≥ 99.90	%
Phosphorus (%)	0.015-0.040	%
Temper	060	
Tensile Strenght	≥ 205	Mpa
Elongation	≥ 40	%





Insulation Technical Properties		
Description	Value	Unit
Thermal Conductivity	0.038	W/m.k
Tensile Strenght	0.32	Mpa
Density	30	Kg/ m3
Water Absorption	0.08	mg/cm2
Heat Shrinkage Rate	6.8	%
Corrosion Resistance	No Corrosion	

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PRODUCT SPECIFICATION:

ASTM B280

Annealed Coil Copper and Insulation Tube

Product Code	Copper Tube			Length	Insulation Thickness	Description
	Size		Thickness			
	inch	mm	mm	mtr	mm	PK
GPIS06009	1/4	6.35	0.76	30	10	1/2 PK - 1 PK
	3/8	9.52	0.81			
GPIS06013	1/4	6.35	0.76	30	10	1.1/2 PK - 2 PK
	1/2	12.7	0.81			
GPIS06016	1/4	6.35	0.76	30	10	2.1/2 PK - 3 PK
	5/8	15.8	0.89			
GPIS09016	3/8	9.52	0.81	30	10	3.1/2 PK - 4 PK
	5/8	15.8	0.89			
GPIS09019	3/8	9.52	0.81	30	10	4.1/2 PK - 5 PK
	3/4	19.05	0.89			
GPIS13019	1/2	12.7	0.81	30	10	5.1/2 PK - 6 PK
	3/4	19.05	0.89			

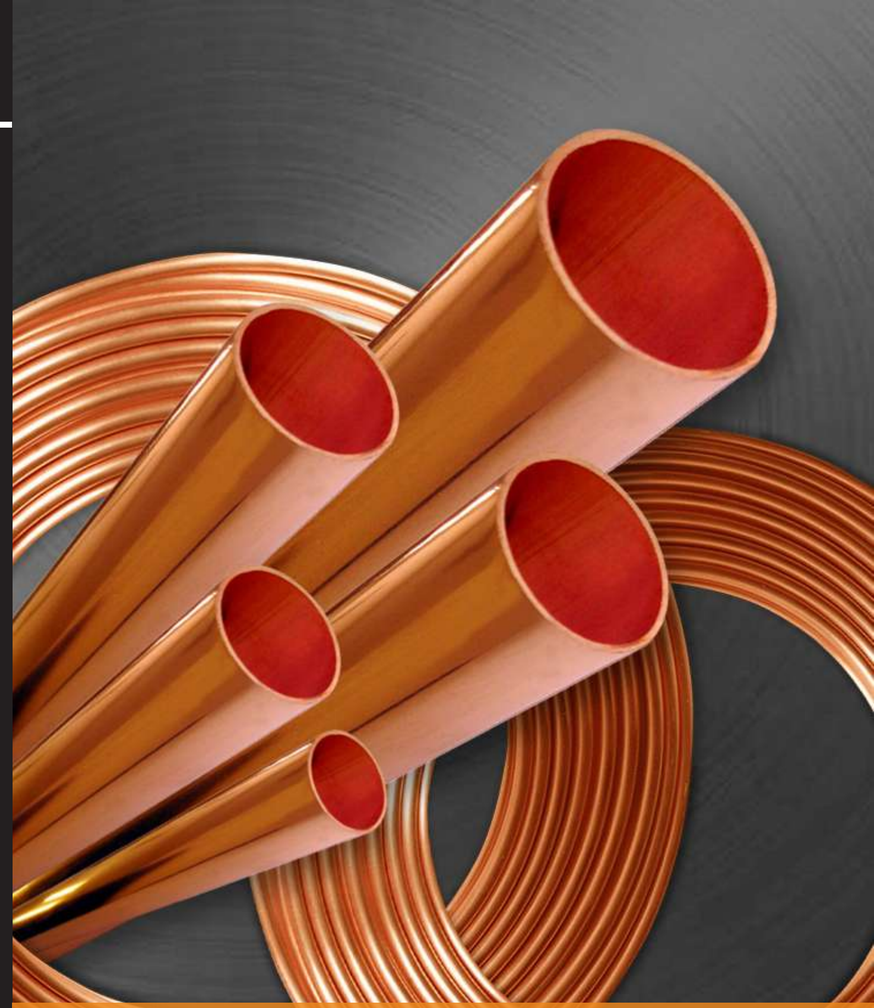
JIS H3300 : C1220T / ASTM B280

Annealed Coil Copper and Insulation Tube

Product Code	Copper Tube			Length	Insulation Thickness	Description
	Size		Thickness			
	inch	mm	mm	mtr	mm	PK
GPIM06009	1/4	6.35	0.61	30	10	1/2 PK - 1 PK
	3/8	9.52	0.61			
GPIM06013	1/4	6.35	0.61	30	10	1.1/2 PK - 2 PK
	1/2	12.7	0.65			
GPIM06016	1/4	6.35	0.61	30	10	2.1/2 PK - 3 PK
	5/8	15.8	0.65			
GPIM09016	3/8	9.52	0.61	30	10	3.1/2 PK - 4 PK
	5/8	15.8	0.65			
GPIM09019	3/8	9.52	0.61	30	10	4.1/2 PK - 5 PK
	3/4	19.05	0.71			
GPIM13019	1/2	12.7	0.65	30	10	5.1/2 PK - 6 PK
	3/4	19.05	0.71			

Features:

- High Quality annealed (soft) copper
- Individually boxed
- Inverter (R410A and R32)



AIR CONDITIONING
REFRIGERATION
MEDICAL GAS
PLUMBING

GeVeR®
Copper Tube

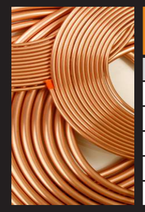
RELIABLE QUALITY

ASTM B280

Seamless Copper Tube for Air Conditioning and Refrigeration Field Service

This copper tube are widely used for heat exchangers, radiators, coolers, electro-heat-up-pipe, air conditioner and refrigerators. The straight pipes can be used for oil transportation, brake pipes, water pipes and gas pipes for construction.

Standard sizes for Annealed Coil Copper Tubes (15 metres /coil)



Standard Size	Outside Diameter	Wall Thickness	Safe Working Internal Pressures			
			150° F (65.5° C)		300° F (148° C)	
inch	inch (mm)	inch (mm)	psi	kPa	psi	kPa
1/4	0.250 (6.35)	0.030 (0.76)	1195	8239	1102	7598
3/8	0.375 (9.52)	0.032 (0.81)	836	5764	770	5309
1/2	0.500 (12.70)	0.032 (0.81)	618	4261	569	3923
5/8	0.625 (15.90)	0.035 (0.89)	525	3619	484	3337
3/4	0.750 (19.10)	0.035 (0.89)	435	2999	400	2757

Standard sizes for Hard Drawn Straight Copper Tubes (5.8 metres /lenght)

Standard Size	Outside Diameter	Wall Thickness	Safe Working Internal Pressures			
			150° F (65.5° C)		300° F (148° C)	
inch	inch (mm)	inch (mm)	psi	kPa	psi	kPa
3/8	0.375 (9.52)	0.030 (0.76)	1371	9453	1326	9142
1/2	0.500 (12.70)	0.035 (0.89)	1172	8080	1133	7812
5/8	0.625 (15.90)	0.040 (1.02)	1085	7481	1049	7232
3/4	0.750 (19.10)	0.042 (1.07)	949	6543	918	6329
7/8	0.875 (22.20)	0.045 (1.14)	875	6033	846	5833
1 1/8	1.125 (28.60)	0.050 (1.27)	743	5122	718	4950
1 3/8	1.375 (34.90)	0.055 (1.40)	660	4550	638	4399
1 5/8	1.625 (41.30)	0.060 (1.52)	614	4233	593	4088
2 1/8	2.125 (54.00)	0.070 (1.78)	546	3764	528	3640
2 5/8	2.625 (66.70)	0.080 (2.03)	504	3475	487	3357
3 1/8	3.125 (79.40)	0.090 (2.29)	476	3282	460	3171
3 5/8	3.625 (92.10)	0.100 (2.54)	455	3137	440	3033
4 1/8	4.125 (104.8)	0.110 (2.79)	440	3033	425	2930

Technical Data

Values of allowable internal working pressure for copper tube in service are based on the formula from ANSI B31 Standard Code for Pressure Piping.
This formula includes the maximum allowable stress the pipe can be under, the wall thickness and the outside diameter of the tubing and also includes a work temperature.
The value of S in the formula is the maximum allowable stress (ASME B31) for continuous long term service of the tube material.

$$P = \frac{2\,S\,tm}{D\,max - 0.8\,tm}$$

Where :
P = Allowable Pressure, Psi
S = Maximum Allowable Stress in tention, Psi
T_{min} = Wall Thickness (min), mm
D_{max} = Outside Diameter (max), mm

AS 1571

Seamless Copper Tube for Air Conditioning and Refrigeration Field Service

Gever® copper tube also manufactures another range of copper tube to comply with Australian Standards, AS/NZS 1571 Seamless Copper tubes for Air-Conditioning and Refrigeration.

Standard sizes for Annealed Coil Copper Tubes (15 metres /coil)

Standard Size	Outside Diameter	Wall Thickness	Safe Working Internal Pressures									
			50° C		55° C		60° C		65° C		70° C	
inch	inch (mm)	inch (mm)	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa
1/4	0.250 (6.35)	0.022 (0.56)	1005	6933	971	6696	937	6459	902	6222	868	5986
3/8	0.375 (9.53)	0.022 (0.56)	652	4495	630	4342	607	4188	585	4035	563	3881
1/2	0.500 (12.70)	0.024 (0.61)	528	3641	510	3517	492	3393	474	3268	456	3144
5/8	0.625 (15.88)	0.024 (0.61)	419	2888	405	2789	390	2690	376	2592	362	2493
3/4	0.750 (19.05)	0.028 (0.71)	413	2846	399	2749	385	2652	371	2554	356	2457

Standard sizes for Hard Drawn Straight Copper Tubes (5.8 metres /lenght)

Standard Size	Outside Diameter	Wall Thickness	Safe Working Internal Pressures									
			50° C		55° C		60° C		65° C		70° C	
inch	inch (mm)	inch (mm)	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa
1/2	0.500 (12.70)	0.028 (0.71)	630	4344	609	4196	587	4048	566	3899	544	3751
5/8	0.625 (15.88)	0.028 (0.71)	499	3439	482	3322	465	3204	448	3087	431	2969
3/4	0.750 (19.05)	0.028 (0.71)	413	2846	399	2749	385	2652	371	2554	356	2457
7/8	0.875 (22.23)	0.032 (0.81)	403	2781	390	2686	376	2591	362	2496	348	2401
1	1.000 (25.40)	0.036 (0.91)	396	2732	383	2639	369	2546	356	2452	342	2359
1 1/8	1.125 (28.58)	0.036 (0.91)	351	2420	339	2337	327	2254	315	2172	303	2089
1 1/4	1.250 (31.75)	0.036 (0.91)	315	2171	304	2097	293	2023	283	1949	272	1875
1 3/8	1.375 (34.93)	0.048 (1.22)	386	2662	373	2571	360	2480	347	2389	333	2298
1 5/8	1.625 (41.28)	0.048 (1.22)	325	2241	314	2164	303	2088	292	2011	281	1935
2 1/8	2.125 (53.98)	0.048 (1.22)	247	1703	239	1645	230	1586	222	1528	213	1470
2 5/8	2.625 (66.68)	0.064 (1.63)	268	1845	258	1782	249	1719	240	1656	231	1593
3 1/8	3.125 (79.38)	0.072 (1.83)	252	1738	243	1678	235	1619	226	1560	218	1500
4 1/8	4.125 (104.78)	0.095 (2.41)	251	1733	243	1674	234	1615	226	1556	217	1497

Quality Control

Values of allowable internal working pressure for copper tube in service are based on the formula from ANSI B31 Standard Code for Pressure Piping.
This formula includes the maximum allowable stress the pipe can be under, the wall thickness and the outside diameter of the tubing and also includes a work temperature.

ASTM B819 Type L

Gever® Copper Tube which used for **Medical Gas Systems** is identified as type L, manufactured by such hot working necessary to convert the billet to a tubular shape and cold worked to the finished size, furnished in the H58 (Drawn General Purpose) temper.

Standard sizes for Hard Drawn Straight Copper Tubes (5.8 metres /lenght)

Standard Size	Outside Diameter	Wall Thickness	Safe Working Internal Pressures			
			150° F (65.5° C)		300° F (148° C)	
inch	inch (mm)	inch (mm)	PSI	kPa	PSI	kPa
3/8	0.375 (9.52)	0.030 (0.76)	1363	9397	1317	9080
1/2	0.500 (12.7)	0.035 (0.89)	1189	8198	1150	7929
5/8	0.625 (15.9)	0.040 (1.02)	1087	7494	1050	7239
3/4	0.750 (19.1)	0.042 (1.07)	940	6481	909	6267
7/8	0.875 (22.2)	0.045 (1.14)	867	5977	838	5778
1	1.000 (25.40)	0.047 (1.20)	743	5122	718	4950
1 1/8	1.125 (28.6)	0.050 (1.27)	740	5102	716	4936
1 3/8	1.375 (34.9)	0.055 (1.40)	666	4592	644	4440
1 5/8	1.625 (41.3)	0.060 (1.52)	614	4233	594	4095
2 1/8	2.125 (54.0)	0.070 (1.78)	545	3757	527	3633
2 5/8	2.625 (66.7)	0.080 (2.03)	505	3481	488	3364
3 1/8	3.125 (79.4)	0.090 (2.29)	475	3275	459	3164
3 5/8	3.625 (92.1)	0.100 (2.54)	456	3144	441	3040
4 1/8	4.125 (104.8)	0.110 (2.79)	440	3033	425	2930

ASTM B88 Type K

This specification covers seamless copper water tube suitable for general plumbing, similiar applications for the conveyance of fluids and commonly used with solder, flared, or compression type fittings.

Standard sizes for Hard Drawn Straight Copper Tubes (5.8 metres /lenght)

Standard Size	Actual Dimension (inches)				Safe Working Internal Pressures			
	Outside Diameter		Wall Thickness		150° F (65.5° C)		300° F (148° C)	
inch	inch (mm)	inch	inch (mm)		PSI	kPa	PSI	kPa
1/4	0.375 (9.52)	3/8	0.030 (0.76)		1372	9459	1326	9142
3/8	0.500 (12.7)	1/2	0.035 (0.89)		1195	8239	1155	7963
1/2	0.625 (15.9)	5/8	0.040 (1.02)		1089	7508	1053	7260
5/8	0.750 (19.1)	3/4	0.042 (1.07)		945	6515	914	6302
3/4	0.875 (22.2)	7/8	0.045 (1.14)		863	5950	835	5757
1	1.125 (28.6)	1 1/8	0.050 (1.27)		743	5122	718	4950
1 1/4	1.375 (34.9)	1 3/8	0.055 (1.40)		669	4612	646	4454
1 1/2	1.625 (41.3)	1 5/8	0.060 (1.52)		612	4219	592	4081
2	2.125 (54.0)	2 1/8	0.070 (1.78)		546	3764	528	3640
2 1/2	2.625 (66.7)	2 5/8	0.080 (2.03)		504	3475	487	3357
3	3.125 (79.4)	3 1/8	0.090 (2.29)		477	3288	461	3178
3 1/2	3.625 (92.1)	3 5/8	0.100 (2.54)		455	3137	440	3033
4	4.125 (104.8)	4 1/8	0.110 (2.79)		439	3026	425	2930