



# Copper Tube



SEAMLESS  
COPPER TUBE

**TO AUSTRALIAN  
STANDARD  
AS1432**

- Plumbing
- Gas Fittings
- Drainage

[www.kembla.com.au](http://www.kembla.com.au)



# Copper Tube TO AS 1432

MM Kembla has been providing our customers with the highest quality and most reliable products and services for over 100 years. Established in 1916, MM Kembla is Australia's only copper tube manufacturer. Still operating from its original site at Port Kembla, NSW Australia, MM Kembla remains the most highly regarded supplier of copper products including tube, fittings and accessories. Extensive technical knowledge combined with stringent in-house quality controls and testing with an ISO 9001 certified quality management system, MM Kembla has developed a renowned reputation for quality, reliability and service.



## KEMBLA® COPPER TUBE

Kembla copper tube manufactured to Australian Standard AS1432 is suitable for use in pressure and non-pressure plumbing, gas fitting and drainage applications.

Seamless copper tube is available in sizes 6.35mm up to 254mm. The Kembla range of copper tube is available as "Hard Drawn" straight lengths, "Bendable Quality" (BQ) straight lengths and annealed coils. Tubes are available and in a variety of wall thickness to meet the safe working pressure requirements for varying applications.

Kembla copper tube to AS1432 is also available in pre-lagged straights and coils suitable for a variety of end-use applications.

All Kembla tubes are lead-free, Watermark Certified and meet the stringent testing requirements of AS 4020: Materials in Contact with Drinking Water.

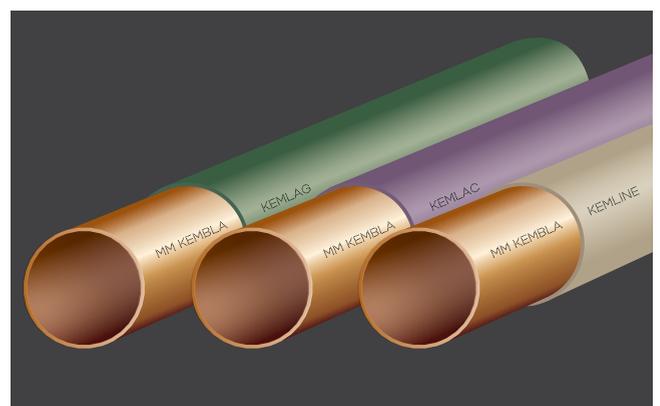
## PRE-LAGGED COPPER TUBE

Kembla copper tubes are available in 3 different types of pre-insulated polyethylene covered copper tube for a variety of applications.

**KEMLAG** pre-insulated copper tube is available with a UV resistant green plastic sheathing for use in short un domestic hot water lines, burying in corrosive soils and laying under floors and concrete slabs (where approved)

**KEMLAG RECYCLED WATER** pre-lagged tubes are available in a lilac coloured lagging for the purpose of differentiating between drinking water pipes and those used for recycled water.

**KEMLINE** biscuit colour pre-insulated annealed copper tube coils are used in LP gas pipelines for vehicle engines and satisfies the requirements of AS1425.

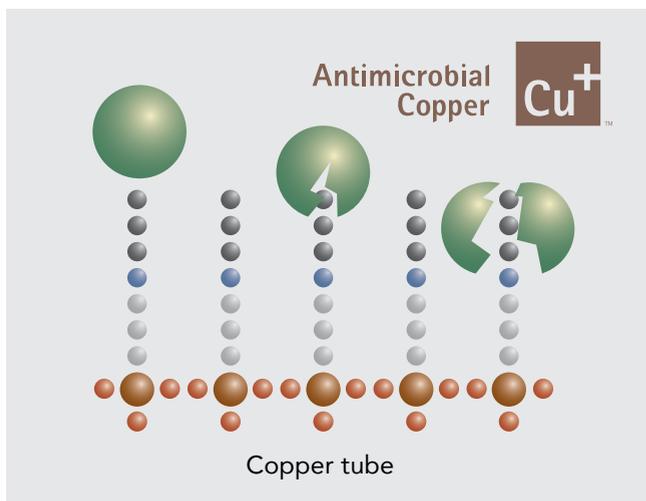


# Copper Tube TO AS 1432

## BENEFITS OF USING COPPER TUBE FOR PLUMBING APPLICATIONS

### OPTIMAL PERFORMANCE & DESIGN

- Ability to handle high working pressures
- Suitable for extreme high and low temperatures - Max service temperature of 200°C
- Superior flow rates due to low surface roughness and full flow fittings that don't reduce the bore of the tube
- Minimal linear expansion and space requirements
- Less bracketing/support required
- Excellent thermal conductivity – perfect for exchanging heat or cold fluids and energy efficiency



### HYGIENIC

Copper fights and inhibits the proliferation of harmful bacteria and pathogens, ensuring your drinking water is free from nasties that could lead to illness.

Tube is made of 99.90% copper and contains no additives, volatile organic compounds (VOC's) or pigments or synthetic compounds inside it, providing the safest and cleanest drinking water to Australian homes, hospitals and offices for decades.

### STRONG & RELIABLE

The inherent strength of copper tube provides protection to external damage, puncture, abrasion, vibration and excellent corrosion resistance meaning you reduce the risk of a costly system failure.

Copper has a tensile strength of 220MPa on annealed tube and up to 380MPa on hard drawn tube, making it up to 10 times stronger than plastic piping materials. In addition copper does not harden or soften with age and is UV resistant meaning it's suitable for use in direct sunlight.



### EASY TO USE

Copper tube is easy to install and many quick and easy connection methods are available for joining copper tube:

- Press fittings
- Compression
- Push fittings
- Swaging & Flaring
- Brazing
- Roll grooving
- Threaded
- Branch forming

### SAFE & FIRE RESISTANT

Copper is the safest material to use in plumbing system, providing the following benefits:

- Copper is not permeable to gases or air, meaning no leakage or contamination from outside is possible
- Does not leech dangerous metals or toxins into drinking water
- Copper tube does not burn or support combustion, spread flame or emit toxic fumes during fire
- Resistant to vermin attack

### PROVEN TRACK RECORD

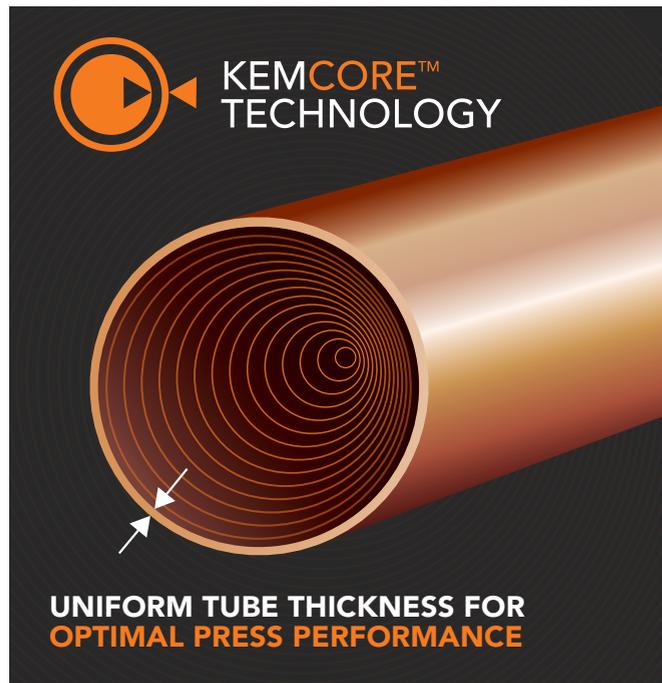
Copper has been used to convey water all over the world for thousands of years. The first known installation was laid in an ancient Egyptian temple almost 5,000 years so. Copper tube has a proven track record in plumbing and a design life of 50 years.



# Copper Tube TO AS 1432

## WHY USE KEMBLA® COPPER TUBE? IT'S THE KEMBLA DIFFERENCE

All copper tube may look the same, but the rich history and manufacturing know-how of MM Kembla developed over 100 years means when you use a length of Kembla copper tube there's a difference. That's the Kembla Difference.



### KEMCORE™ – ECCENTRICITY CONTROL

Eccentricity is the variation of tube wall thickness that occurs during the manufacture of tube. The higher the eccentricity found in a length of tube, the more likely it will cause you an issue when installing, particularly when using press fittings as uneven wall thickness can lead to weak points on the tube.

Kembla's unique KEMCORE™ Technology ensures the final product is concentric with superior wall thickness control for long term tube performance and optimal press conditions when used with press fittings.



### 25 YEAR WARRANTY

Kembla Copper Tube is supported by a trusted local 25 year warranty.

## AUSTRALIA'S ONLY COPPER TUBE MANUFACTURER

MM Kembla is Australia's only seamless copper tube manufacturer, operating out of its original site in Port Kembla, NSW since 1916.

For over 100 years MM Kembla has been manufacturing and supplying copper tube that has been the lifeblood of Australian homes, offices, hospitals and buildings delivering essential services to generations of Australians. Kembla Copper Tube is stocked across Australia as part of MM Kembla's vast national distribution network and sold by Australia's largest plumbing distributors.

## STRICT QUALITY MANAGEMENT SYSTEMS



- ISO9001 certified quality management system
- Kembla internal quality controls that go above and beyond standard requirements
- World's best practice and commitment to process control in ensuring product quality
- Comprehensive system to track and resolve quality issues and continuous improvement

## LOCAL TECHNICAL SUPPORT

MM Kembla has a dedicated technical support team and laboratory to assist you with the following:

- Technical assistance & enquiries
- Design advice and product support
- Investigative analysis and reporting
- On-site training and inspection



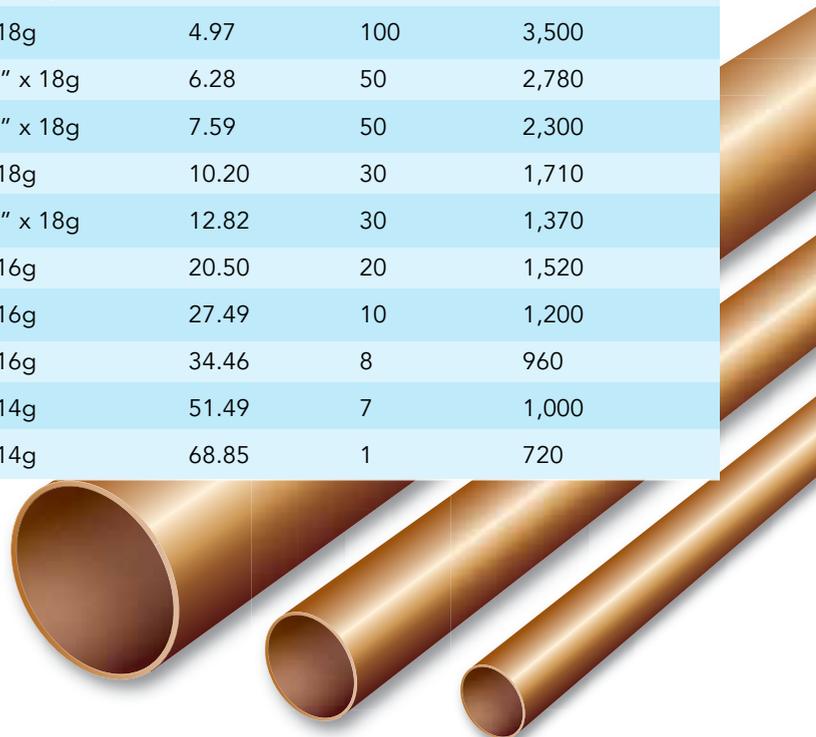
# Copper Tube TO AS 1432

## TYPE A

Item Code	Nom. Size	Actual Tube Size (Metric)	Actual Tube Size (Imperial)	kg per 6m length	Pack Qty.	*Safe Working Pressure (kPa)
T10472	DN6	6.35 x 0.91	1/4" x 20g	0.83	200	11,320
T89630	DN15	•12.70 x 1.02	1/2" x 19g	2.01	100	6,100
T79928	DN18	•15.88 x 1.22	5/8" x 18g	3.00	100	5,750
T67512	DN20	•19.05 x 1.42	3/4" x 17g	4.22	100	5,560
T79847	DN25	25.40 x 1.63	1" x 16g	6.53	100	4,750
T79812	DN32	31.75 x 1.63	1 1/4" x 16g	8.28	50	3,750
T79782	DN40	38.10 x 1.63	1 1/2" x 16g	10.03	50	3,100
T79715	DN50	50.80 x 1.63	2" x 16g	13.52	30	2,310
T89958	DN65	63.50 x 1.63	2 1/2" x 16g	17.01	30	1,840
T89931	DN80	76.20 x 2.03	3" x 14g	25.39	20	1,900
T89851	DN100	101.60 x 2.03	4" x 14g	34.09	10	1,500
T19151	DN125	127.00 x 2.03	5" x 14g	42.79	8	1,200
T19542	DN150	152.40 x 2.64	6" x 12g	66.68	7	1,300
T20078	DN200	203.20 x 2.64	8" x 12g	89.27	1	910

## TYPE B

Item Code	Nom. Size	Actual Tube Size (Metric)	Actual Tube Size (Imperial)	kg per 6m length	Pack Qty.	*Safe Working Pressure (kPa)
T79987	DN10	9.52 x 0.91	3/8" x 20g	1.32	200	7,220
T89621	DN15	•12.70 x 0.91	1/2" x 20g	1.81	100	5,290
T58769	DN18	•15.88 x 1.02	5/8" x 19g	2.56	100	4,810
T83356	DN20	•19.05 x 1.02	3/4" x 19g	3.10	100	3,970
T79839	DN25	25.40 x 1.22	1" x 18g	4.97	100	3,500
T79804	DN32	31.75 x 1.22	1 1/4" x 18g	6.28	50	2,780
T79774	DN40	38.10 x 1.22	1 1/2" x 18g	7.59	50	2,300
T79707	DN50	50.80 x 1.22	2" x 18g	10.20	30	1,710
T89940	DN65	63.50 x 1.22	2 1/2" x 18g	12.82	30	1,370
T89923	DN80	76.20 x 1.63	3" x 16g	20.50	20	1,520
T89842	DN100	101.60 x 1.63	4" x 16g	27.49	10	1,200
T19208	DN125	127.00 x 1.63	5" x 16g	34.46	8	960
T19607	DN150	152.40 x 2.03	6" x 14g	51.49	7	1,000
T20094	DN200	203.20 x 2.03	8" x 14g	68.85	1	720



# Copper Tube TO AS 1432

## TYPE C

Item Code	Nom. Size	Actual Tube Size (Metric)	Actual Tube Size (Imperial)	kg per 6m length	Pack Qty.	*Safe Working Pressure (kPa)
T79031	DN10	9.52 x 0.71	3/8" x 22g	1.06	200	5,520
T89460	DN15	•12.70 x 0.71	1/2" x 22g	1.43	100	4,070
T22438	DN18	•15.88 x 0.91	5/8" x 20g	2.30	100	4,180
T81434	DN20	•19.05 x 0.91	3/4" x 20g	2.78	100	3,450
T79456	DN25	25.40 x 0.91	1" x 20g	3.76	100	2,560

## TYPE D

Item Code	Nom. Size	Actual Tube Size (Metric)	Actual Tube Size (Imperial)	kg per 6m length	Pack Qty.	*Safe Working Pressure (kPa)
T89672	DN32	31.75 x 0.91	1 1/4" x 20g	4.73	50	2,040
T79766	DN40	38.10 x 0.91	1 1/2" x 20g	5.71	50	1,690
T79693	DN50	50.80 x 0.91	2" x 20g	7.66	30	1,260
T89761	DN65	63.50 x 0.91	2 1/2" x 20g	9.61	30	1,010
T89915	DN80	76.20 x 1.22	3" x 18g	15.43	20	1,130
T89834	DN100	101.60 x 1.22	4" x 18g	20.65	10	890
T19658	DN150	152.40 x 1.63	6" x 16g	41.45	7	800

## OTHER STRAIGHT LENGTHS

Item Code	Actual Tube Size (Metric)	Actual Tube Size (Imperial)	Length	Pack Qty
T79880	19.05 x 1.22	3/4" x 18g	6m	100
T74964	19.05 x 1.63	3/4" x 16g	6m	100
T89745	101.60 x 0.91	4" x 20g	6m	10
T19691	152.40 x 0.91	6" x 20g	6m	5
T20418	254.00 x 2.64	10" x 12g	6m	1

## LAGGED COILS FOR GAS

Item Code	Actual Tube Size (Metric)	Actual Tube Size (Imperial)	Length	Pack Qty.
T68631	6.35 x 0.91	1/4" x 20g	18m	1
T24447	7.94 x 0.91	5/16" x 20g	30m	1
T90548	9.52 x 0.91	3/8" x 20g	18m	1

## KEMLAG STRAIGHTS

Item Code	Actual Tube Size (Metric)	Actual Tube Size (Imperial)	Length	Pack Qty.
<b>TYPE A</b>				
T70459	•12.70 x 1.02	1/2" x 19g	6m	25
T10642	•19.05 x 1.42	3/4" x 17g	6m	25
<b>TYPE B</b>				
T70475	•12.70 x 0.91	1/2" x 20g	6m	25
T70531	•15.88 x 1.02	5/8" x 19g	6m	25
T70581	•19.05 x 1.02	3/4" x 19g	6m	25
T70696	25.40 x 1.22	1" x 18g	6m	25
T58556	31.75 x 1.22	1 1/4" x 18g	6m	150
T20991	38.10 x 1.22	1 1/2" x 18g	6m	100
T63312	50.80 x 1.22	2" x 18g	6m	75
T09938	101.60 x 1.63	4" x 16g	6m	15
<b>TYPE C</b>				
T70572	•15.88 x 0.91	5/8" x 20g	6m	25
T70688	•19.05 x 0.91	3/4" x 20g	6m	25
T70718	25.40 x 0.91	1" x 20g	6m	25

## LAGGED TUBES FOR RECYCLED WATER

Item Code	Actual Tube Size (Metric)	Actual Tube Size (Imperial)	Length	Pack Qty.
T12467	12.70 x 0.91	1/2" x 20g	6m	25
T12408	19.05 x 1.02	3/4" x 19g	6m	25
T12425	25.40 x 1.22	1" x 18g	6m	25
T78336	31.75 x 1.22	1 1/4" x 18g	6m	150
T58785	38.10 x 1.22	1 1/2" x 18g	6m	100
T15900	50.80 x 1.22	2" x 18g	6m	75
T15905	63.50 x 1.22	2 1/2" x 18g	6m	60
T15910	76.20 x 1.63	3" x 16g	6m	40
T90093	101.60 x 1.63	4" x 16g	6m	15

## KEMLAG ANNEALED COILS

Item Code	Actual Tube Size (Metric)	Actual Tube Size (Imperial)	Length	Pack Qty.
<b>TYPE A</b>				
T44466	12.70 x 1.02	1/2" x 19g	18m	1
<b>TYPE B</b>				
T47171	12.70 x 0.91	1/2" x 20g	18m	1
T70271	15.88 x 1.02	5/8" x 19g	18m	1
T70327	19.05 x 1.02	3/4" x 19g	18m	1
<b>TYPE C</b>				
T70301	19.05 x 0.91	3/4" x 20g	18m	1

## ANNEALED COILS

Item Code	Actual Tube Size (Metric)	Actual Tube Size (Imperial)	Length	Pack Qty.
<b>TYPE A</b>				
T32328	6.35 x 0.91	1/4" x 20g	30m	5
T89770	7.94 x 0.91	5/16" x 20g	30m	5
T79651	12.70 x 1.02	1/2" x 19g	18m	4
T79618	19.05 x 1.42	3/4" x 17g	18m	2
T79570	25.40 x 1.63	1" x 16g	18m	1
<b>TYPE B</b>				
T79677	9.52 x 0.91	3/8" x 20g	18m	6
T79642	12.70 x 0.91	1/2" x 20g	18m	4
T79626	15.88 x 1.02	5/8" x 19g	18m	3
T79596	19.05 x 1.02	3/4" x 19g	18m	3
T79561	25.40 x 1.22	1" x 18g	18m	2
<b>TYPE C</b>				
T79049	15.88 x 0.91	5/8" x 20g	18m	3
T79588	19.05 x 0.91	3/4" x 20g	18m	3

- \* Safe Working Pressures applicable up to 50°C.
- Generally supplied as "BQ" – bendable quality.

## MAXIMUM ALLOWABLE VELOCITIES

The below are maximum velocities, consideration should be given to variable flows and peak operating periods during design to not exceed maximum velocities for extended periods.

### Piping

Circulatory (flow)  
 Non-circulatory (flow)  
 Circulatory return line

### Maximum Velocity

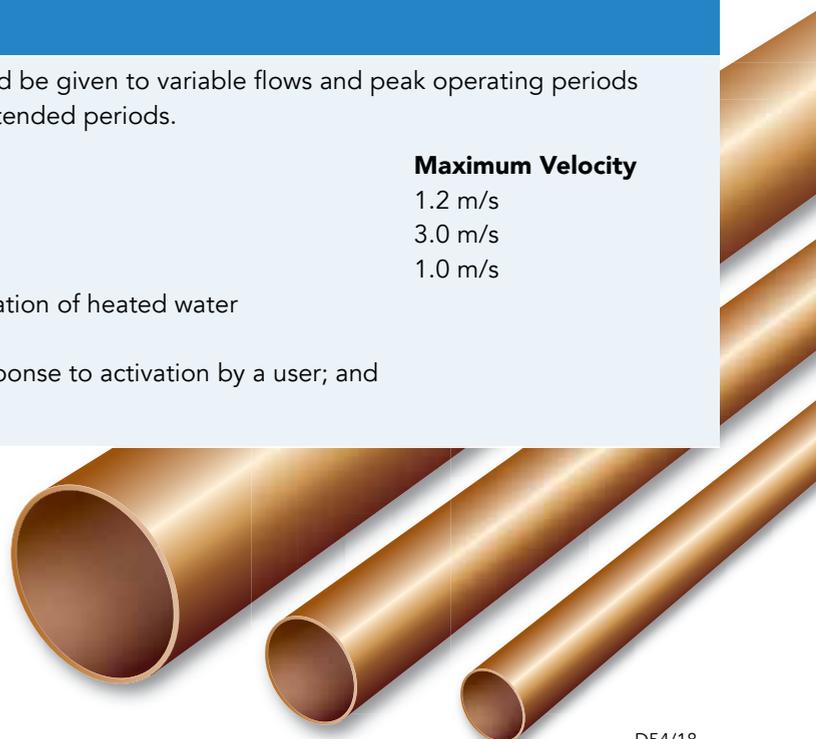
1.2 m/s  
 3.0 m/s  
 1.0 m/s

1. Circulatory means piping where there is forced circulation of heated water
2. Circulatory piping does not include -
  - (a) systems where the circulatory flow only occurs in response to activation by a user; and
  - (b) primary circulation in a solar water heater



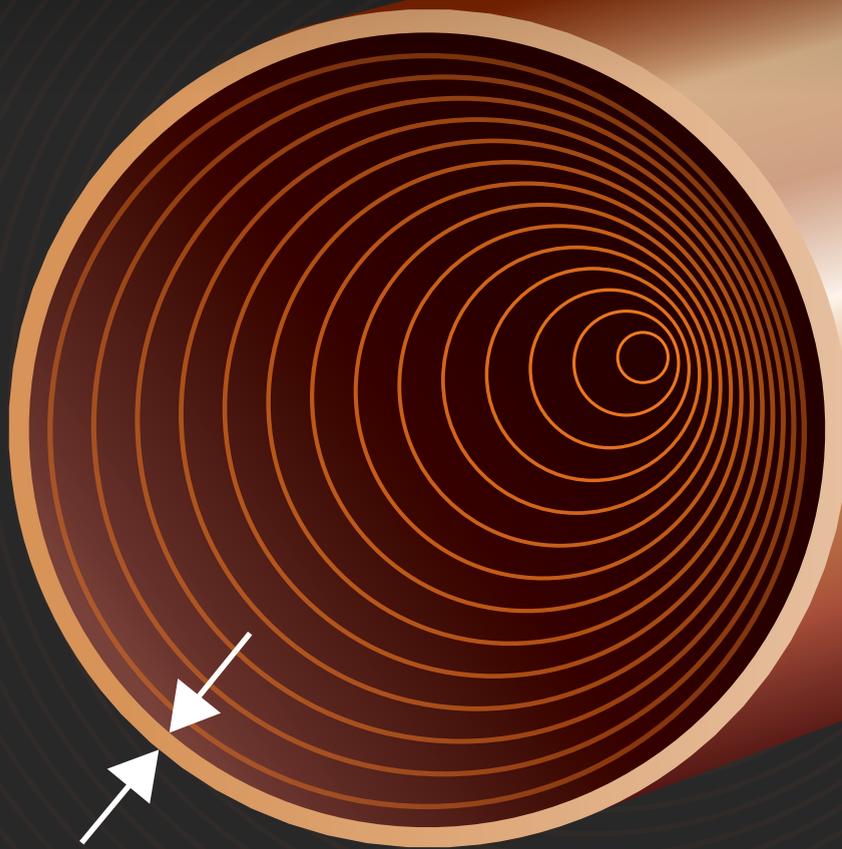
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TECHNOLOGY



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THICKNESS FOR  
OPTIMAL PRESS  
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