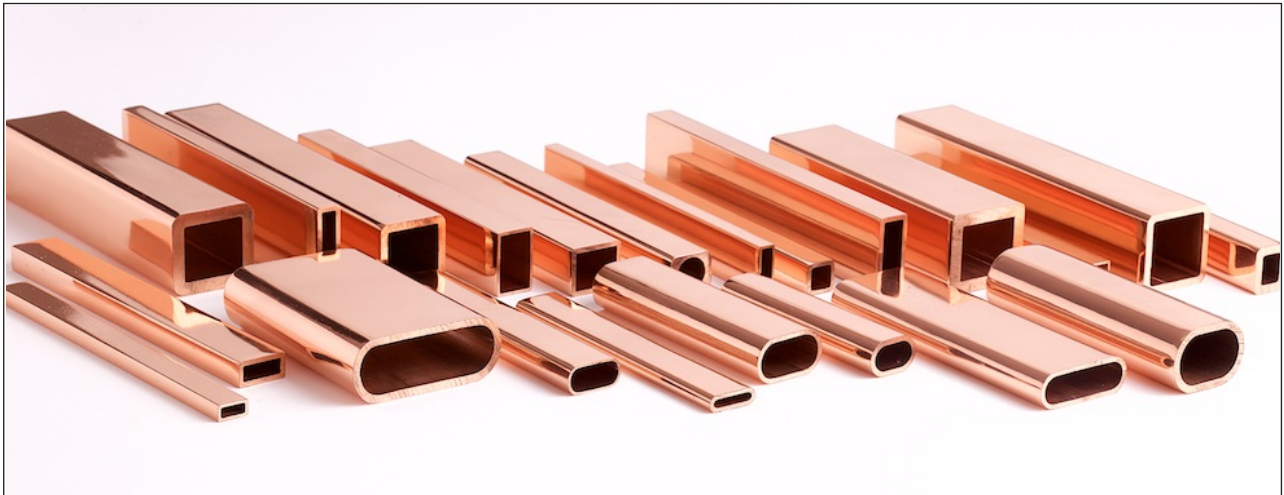


Engineering Copper Tubes Data Sheet



Made to order so contact our Sales department with FULL enquiry. Average manufacturing time is 4 weeks.

We manufacture/distribute to the following European Specifications (American ASTM can also be offered):

BS EN 12449:2023 BS EN 12451:2012 BS EN 13600:2021

BS EN 12449 Seamless, round tubes for general purposes.

Material Analysis (C106)

Material Grade Phosphorus de-oxidised copper; Cu-DHP or CW024A as defined in BS EN 1976.

Minimum Copper Content 99.90 % (including silver)

Phosphorus 0.015-0.040 %

Total Impurity Maxima 0.060 % (excluding phosphorus and silver)

Mechanical Properties

BS EN 12449 Seamless, round tubes for general purposes



Material Temper	Tensile Strength min. (N/mm2)	Elongation min.(%)	Hardness (Indicative) HV5 VPN
R200 (soft)	200	35	35-65
R250 (Half Hard)	250	15	65-95
R290 (Hard)	290	5	90-110

BS EN 12451 Seamless, round tubes for heat exchangers

Material Analysis

Material Grade Phosphorus de-oxidised copper; Cu-DHP or CW024A as defined in BS EN 1976.

Minimum Copper Content 99.90 % (including silver)

Phosphorus 0.015-0.040 %

Total Impurity Maxima 0.060 % (excluding phosphorus and silver)

Mechanical Properties

BS EN 12451 Seamless, round tubes for heat exchangers



Material Temper	Tensile Strength min. (N/mm2)	Elongation min. (%)	Hardness (Indicative) HV5 VPN
R250 (Half Hard)	250	30	75-100
R290 (Hard)	290	5	Over 100

BS EN 13600 Seamless, round tubes for electrical purposes

Material Analysis (HC C101)

Material Grade Phosphorus de-oxidised copper; Cu-ETP or CW004A as defined in BS EN 1976.

Minimum Copper Content min 99.90 % (including silver)

Max Oxygen – 0.060 % is permitted, subject to agreement between the purchaser and Lawton Tubes

Max Lead – 0.005 %

Total Impurity Maxima 0.030 % (excluding oxygen, lead and silver)

Material Analysis (HC C103)

Material Grade Phosphorus de-oxidised copper; Cu-OF or CW008A as defined in BS EN 1976.

Minimum Copper Content min 99.95 % (including silver)

Max Lead – 0.005 %

Total Impurity Maxima 0.030 % (excluding lead and silver)

Mechanical Properties

BS EN 13600 Seamless, round tubes for electrical purposes

Material Temper	Tensile Strength min. (N/mm2)	Elongation min. (%)	Hardness (Indicative) HV5 VPN
R200 (soft)	200	35	35-65
R250 (Half Hard)	250	15	65-95
R290 (Hard)	290	5	90-110