## PRODUCT MANUAL



**Copper and Copper Alloy Seamless Condenser Tubes and Ferrule Stock** 

## Standard & Material

ASTM B111/B111M ASME SB111 C68700 O61

It covers the requirements for seamless tube and ferrule stock of copper and various copper alloys up to 3-1/8 inch [80mm] inclusive, in diameter, for use in surface condensers, evaporators and heat exchangers. The coppers and copper alloys are including C10100, C10200, C10300, C10800, C12000, C12200, C14200, C19200, C23000, C28000, C44300, C44500, C44500, C60800, C61300, C61400, C68700, C70400, C70600, C70620, C71000, C71500, C71520, C71640, and C72200.

## **Chemistry Composition**

Cu, % 76.0-79.0

Al, % 1.80-2.50

Pb, % 0.07 max

Fe, % 0.06 max

As, % 0.02-0.06

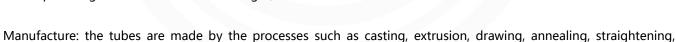
Zn, % remainder

## **Mechanical Properties**

Tensile Strength, MPa 345 min Yield Strength, MPa 125 min Expansion, % 20 min

Wall Thickness: min wall thickness or average wall thickness

Developed Length: max 25 meters each length, +10mm/-0mm



trimming, and other processes which may produce a seamless tube in the specified condition.

Heat Treatment: the tubes are heat treated as annealed (O61) temper.

Inspection & Test: chemistry composition analysis, tension test, expansion test, flattening test, residual stress test (option), NDT, surface inspection and dimension check.

Further Process: U bending tubes, fin tubes

