

Title (en)  
COPPER ALLOY AND METHOD FOR PRODUCTION THEREOF

Title (de)  
KUPFERLEGIERUNG UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)  
ALLIAGE DE CUIVRE ET M THODE DE PRODUCTION DE CELUI-CI

Publication  
**EP 1731624 A1 20061213 (EN)**

Application  
**EP 05719817 A 20050302**

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Abstract (en)  
A copper alloy that has a specific chemical composition, the balance being Cu and impurities, in which the relationship between the total number N and the diameter X satisfies the following formula (1). This copper alloy is obtained by cooling a bloom, a slab, a billet or an ingot in at least a temperature range from the temperature of the bloom, the slab, the billet or the ingot just after casting to 450 °C, at a cooling rate of 0.5 °C/s or more. After the cooling, working in a temperature range of 600 °C or lower and further heat treatment of holding for 30 seconds or more in a temperature range of 150 to 750 °C are desirably performed. The working and the heat treatment are most desirably performed for a plurality of times.  $\log N \neq 0.4742 + 17.629 \times \exp - 0.1133 \times X$  wherein N means the total number of precipitates and inclusions, having a diameter of not smaller than 1 μm which are found in 1 mm<sup>2</sup> of the alloy; and X means the diameter in μm of the precipitates and the inclusions having a diameter of not smaller than 1 μm.

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