

Title (en)

Processing copper-magnesium alloys and improved copper alloy wire

Title (de)

Herstellung von Kupfer-Magnesium-Legierungen und verbesserter Kupfer-Draht

Title (fr)

Fabrication d'alliages de cuivre-magnésium et fil de cuivre amélioré

Publication

EP 1482063 A1 20041201 (EN)

Application

EP 03292667 A 20031024

Priority

US 44571703 A 20030527

Abstract (en)

A copper alloy wire comprises copper alloy containing 0.05-0.9 wt.% magnesium and more than 15 ppm impurities. It has a single end diameter of 0.01 inches, tensile strength of ≥ 100 ksi and an electroconductivity of $>60\%$ international annealed copper standard. An independent claim is also included for a process for manufacturing a copper alloy wire comprising: (a) providing a base material formed from a copper alloy; (b) cold working the base material into a wire having $\geq 40\%$ reduction in original cross-section area; (c) performing a restructuring anneal after the cold working step; and (d) cold working the annealed material into a wire having a final gage of not >0.01 inches.

IPC 1-7

C22C 9/00; **C22F 1/08**

IPC 8 full level

C22C 9/00 (2006.01); **C22F 1/00** (2006.01); **C22F 1/08** (2006.01)

CPC (source: EP US)

C22C 9/00 (2013.01 - EP US); **C22F 1/08** (2013.01 - EP US)

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