

Title (en)

GRAIN REFINEMENT OF COPPER ZINC SILICON CASTING ALLOYS WITH IRON AND BORON

Title (de)

KORNFEINUNG VON KUPFER-ZINK-SILICIUM-GUSSLEGIERUNGEN MIT EISEN UND BOR

Title (fr)

AFFINEMENT DE GRAINS D'ALLIAGES DE COULÉE CUIVRE/ZINC/SILICIUM À L'AIDE DE FER ET DE BORE

Publication

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Application

EP 17001201 A 20140703

Priority

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- EP 14735475 A 20140703
- EP 2014001832 W 20140703

Abstract (en)

[origin: WO2015010768A1] The invention relates to a copper alloy with the following composition [in % by weight]: Cu from 70.0 to 97.0%; Si from 2.0 to 4.5%; B from 0.002 to 0.03%; Fe from 0.01 to 1.0%; if desired also up to 2.0% of Sn, if desired also up to 0.4% of Ni, if desired also up to 0.2% of P, if desired also up to 0.25% of Pb, and if desired in each case also up to 0.15% of As or Sb, the remainder being Zn and unavoidable impurities. The ratio of boron content to the sum of iron content and nickel content here is at least 0.025 and at most 0.12. The invention further relates to the use of boron and iron and optionally also nickel as means for obtaining grain-refined copper-zinc-silicon alloys.

Abstract (de)

Die Erfindung betrifft die Verwendung von Bor und Eisen sowie optional noch Nickel als Kornfeinungsmittel für Kupfer-Zink-Silicium-Gusslegierungen. Dabei beträgt das Verhältnis aus Borgehalt und der Summe aus Eisen- und Nickelgehalt mindestens 0,025 und höchstens 0,12.

IPC 8 full level

C22C 9/04 (2006.01); **C22C 1/06** (2006.01)

CPC (source: EP)

C22C 1/06 (2013.01); **C22C 9/04** (2013.01)

Citation (applicant)

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- EP 1817438 B1 20081001 - KEMPER GEBR GMBH & CO KG [DE], et al
- DE 102005024037 A1 20060413 - DIEHL METALL STIFTUNG & CO KG [DE]
- CN 103114220 A 20130522 - XIAMEN LOTA INT CO LTD
- US 2009263272 A1 20091022 - UCHIDA TORU [JP]
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Citation (search report)

- [IDA] CN 103114220 A 20130522 - XIAMEN LOTA INT CO LTD
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- [A] WO 2009047919 A1 20090416 - TOTO LTD [JP], et al

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