

Title (en)

USE OF A COPPER ALLOY FOR CONTINUOUS-CASTING MOULDS

Publication

EP 0302255 B1 19920102 (DE)

Application

EP 88110843 A 19880707

Priority

DE 3725950 A 19870805

Abstract (en)

[origin: US4883112A] Continuous casting uses a mold made of copper alloy which includes from 0.01% to 0.15% boron, 0.01 to 0.2% magnesium, the remainder being copper as well as manufacture-dependent impurities and working additives; in addition, at least one additive from the group is used at stated percentages: from 0 to 0.05% silicon, from 0 to 0.5% Ni, from 0 to 0.03% iron, from 0 to 0.03% titanium, from 0 to 0.2% zirconium, from 0 to 0.04% phosphorus, at a total content not exceeding 0.6%, all percentages by weight; the silicon content should be from 0.02% to 0.04%, and the nickel content should be from 0.1 to 0.5%. The mold is made in several working and annealing steps, the last step should be a cold working step with at least 10% deformation.

IPC 1-7

B22D 11/04; **C22C 9/00**

IPC 8 full level

B22D 11/04 (2006.01); **B22D 11/059** (2006.01); **C22C 9/00** (2006.01)

CPC (source: EP KR US)

B22D 11/059 (2013.01 - EP US); **C22C 9/00** (2013.01 - EP KR US)

Cited by

EP1170074A1; EP0477121A1; FR2666757A1

Designated contracting state (EPC)

AT BE CH DE ES FR GB IT LI SE

DOCDB simple family (publication)

EP 0302255 A1 19890208; **EP 0302255 B1 19920102**; AT E71154 T1 19920115; BR 8803869 A 19890221; CA 1321293 C 19930817; DE 3725950 A1 19890216; DE 3867367 D1 19920213; ES 2039513 T3 19931001; FI 883662 A0 19880805; FI 883662 A 19890206; FI 91088 B 19940131; FI 91088 C 19940510; IN 169711 B 19911214; JP 2662421 B2 19971015; JP H01208431 A 19890822; KR 890003972 A 19890419; KR 960001714 B1 19960203; MX 169555 B 19930712; US 4883112 A 19891128; ZA 885799 B 19890927

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