

Title (en)
Zinc alloys suitable for zinc die casting or pressure die casting and production process thereof

Title (de)
Zinklegierungen für den Zinkguss oder Zinkdruckguss und Verfahren zu deren Herstellung

Title (fr)
Alliage de zinc pour le moulage ou le moulage sous pression et son procédé de fabrication

Publication
EP 1270752 A1 20030102 (DE)

Application
EP 02011128 A 20020518

Priority
DE 10131344 A 20010628

Abstract (en)
[origin: DE10131344C1] Zinc alloy contains (in wt. %): 0.01-6 aluminum, 0.01-1.5 copper, 0.001-0.06 magnesium, 0.001-0.2 silicon, 0.002-0.05 titanium, and 0.0002-0.005 boron, and a balance of zinc. An Independent claim is also included for a process for the production of the zinc alloy in the form of pigs, sheets, strips or wires, comprising reacting a fine zinc alloy containing (in wt.%) 0.1-4.2 aluminum, 0.03-1.5 copper, 0.001-0.06 magnesium and 0.002-0.04 silicon with an aluminum-titanium-boron pre-alloy and optionally a silicon and/or chromium alloy and then processing to pigs, sheets, strips or wires. Preferred Features: The zinc alloy contains additionally contains up to 0.2 wt.% chromium. The alloy preferably contains 0.004-0.07 titanium, and 0.0002-0.005 boron.

Abstract (de)
Die Zinklegierung für den Zinkguss oder Zinkdruckguss enthalten außer Zink und den darin enthaltenden unvermeidlichen Verunreinigungen 0,01 bis 6 Gew.-% Aluminium, 0,01 bis 1,5 Gew.-% Kupfer, 0,001 bis 0,06 Gew.-% Magnesium, 0,001 bis 0,2 Gew.-% Silizium sowie 0,002 bis 0,05 Gew.-% Titan, 0,002 bis 0,005 Gew.-% Bor und ggf. bis zu 0,2 Gew.-% Chrom.

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C22C 1/02; **C22C 18/00**

IPC 8 full level
C22C 1/03 (2006.01); **C22C 18/04** (2006.01)

CPC (source: EP)
C22C 1/03 (2013.01); **C22C 18/04** (2013.01)

Citation (search report)

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- [Y] US 4166153 A 19790828 - FERCKE WILHELM [DE]
- [A] DE 2142685 A1 19730301 - METALLGESELLSCHAFT AG
- [XY] PATENT ABSTRACTS OF JAPAN vol. 015, no. 038 (C - 0800) 30 January 1991 (1991-01-30)
- [XA] PORTER, FRANK C.: "Zinc Handbook : properties, processing, and use in design", 1991, MARCEL DEKKER, INC., NEW YORK, ISBN: 0-8247-8340-9, XP002205317
- [A] SKENAZI, A. F. ET AL: "Some recent developments in the improvement of the mechanical properties of zinc foundry alloys", METALL (BERLIN) (1983), 37(9), 898-902, XP001098179

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