

Title (en)
Heat resistant aluminium alloy

Title (de)
Warmfeste Aluminiumlegierung

Title (fr)
Alliage d'aluminium résistant à la chaleur

Publication
EP 1757709 A1 20070228 (DE)

Application
EP 06405085 A 20060228

Priority
CH 13712005 A 20050822

Abstract (en)
Heat resistant Al alloy of type AlMgSi of long lasting heat resistance for production of thermally and mechanically strained cast components, where the contents of alloying elements Mg and Si in wt.% in a Cartesian coordinate system is restricted by a polygon A with specific coordinates and the alloy contains (wt.%):Mn (0.1-1), and maximum amounts of Fe (1.0), Cu (3.0), Ni (2.0), Cr (0.5), Co (0.6), Zn (0.2), Ti (0.2), Zr (0.5), Be (0.008), V (.5), remainder Al and impurities to an individual maximum of 0.05 wt.5 and total maximum of 0.2 wt.%.

IPC 8 full level
C22C 21/08 (2006.01)

CPC (source: EP KR NO US)
C22C 21/06 (2013.01 - KR); **C22C 21/08** (2013.01 - EP KR NO US); **C22F 1/05** (2013.01 - EP US)

Citation (applicant)

- US 3868250 A 19750225 - ZIMMERMANN PAUL
- WO 9615281 A1 19960523 - RHEINFELDEN ALUMINIUM GMBH [DE], et al
- WO 0043560 A1 20000727 - ALUMINIUM LEND GMBH [AT], et al
- EP 1234893 A1 20020828 - ALCAN TECH & MAN AG [CH]
- F. J. FEIKUS: "GIESSEREI-PRAXIS", 1999, article "Optimierung von Aluminium-Silicium- Gusslegierungen für Zylinderköpfe", pages: 50 - 57

Citation (search report)

- [AD] US 3868250 A 19750225 - ZIMMERMANN PAUL
- [AD] EP 1234893 A1 20020828 - ALCAN TECH & MAN AG [CH]
- [A] ZIMMERMANN P ET AL: "WARMFESTE ALUMINIUM-MAGNESIUM-SILIZIUM-GUSSLEGIERUNGEN FUER TEMPARATURWECHSELBEANSPRUCHTE GUSSSTÜCKE HEAT-RESISTANT ALUMINUM-MAGENSIUM-SILICON CASTING ALLOYS FOR CASTINGS SUBJECT TO FLUCTUATING THERMAL STRESS", ALUMINIUM, ALUMINIUM VERLAG, DUESSELDORF, DE, vol. 56, no. 5, May 1980 (1980-05-01), pages 323 - 328, XP009054856, ISSN: 0002-6689
- [AD] FEIKUS F J: "OPTIMIERUNG VON ALUMINIUM-SILICIUM-GUSSLEGIERUNGEN FUER ZYLINDERKOEPFEN", GIESSEREI-PRAXIS, SCHIELE & SCHON. BERLIN, DE, vol. 2, 1999, pages 50 - 57, XP009054925

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Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA HR MK YU

DOCDB simple family (publication)
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DOCDB simple family (application)
EP 06405085 A 20060228; AT 06405085 T 20060228; BR PI0603394 A 20060822; CA 2556645 A 20060821; CN 200610143179 A 20060822; DE 502006000145 T 20060228; JP 2006222957 A 20060818; KR 20060079102 A 20060822; MX PA06009523 A 20060822; NO 20063736 A 20060821; US 50676506 A 20060818