

Title (en)
Aluminium alloy for pressure die casting

Title (de)
Aluminium-Druckgusslegierung

Title (fr)
Alliage d'aluminium pour moulage sous pression

Publication
EP 1612286 A2 20060104 (DE)

Application
EP 05405361 A 20050526

Priority
CH 10912004 A 20040629

Abstract (en)
The aluminum alloy for die casting, especially with high ductility and expansion in the casting condition for the automotive industry, incorporates selectively 0.05-0.3 wt.% zirconium, 30-300 ppm of strontium or 5-30 ppm of sodium and/or 1-30 ppm of calcium for durable refinement of gallium phosphide and/or indium phosphide in a volume to give 1-250 ppm of phosphorus for granular refinement, and titanium and boron introduced into aluminum pre-alloy, with 1-2 wt. % titanium and 1-2 wt.% boron, for grain refining : The aluminum alloy incorporates (in wt.%) 8.0-11.5 silicon, 0.08-0.4 magnesium, 0.3-0.8 manganese, =0.1 iron, =0.1 copper, =0.1 zinc, =0.15 titanium, =0.05-0.5 molybdenum, and =0.05-0.3 zirconium.

IPC 8 full level
C22C 21/02 (2006.01); **C22C 1/06** (2006.01); **C22C 21/04** (2006.01)

IPC 8 main group level
C01F (2006.01)

CPC (source: EP KR US)
C22C 1/06 (2013.01 - EP US); **C22C 21/02** (2013.01 - EP KR US); **C22C 21/04** (2013.01 - EP US)

Cited by
DE102015007929A1; EP3235917A1; WO2017182102A1; DE102010055011A1; EP3176275A1; CN112708793A; AT511397A1; AT511397B1; DE102006032699A1; DE102006032699B4; KR20180132140A; EP3334850A4; WO2008006908A1; EP4339315A1; EP3342890A1; EP3342888A1; EP3342889A1; US11781202B1; EP3235916A1; WO2017182103A1; US11421305B2; EP3176275B1; EP3176275B2; EP3235917B1

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DOCDB simple family (publication)
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