

Title (en)
ALUMINIUM ALLOY FOR CASTING, HAVING HIGH RIGIDITY AND LOW LINER EXPANSION COEFFICIENT

Title (de)
ALUMINIUMGUSSLEGIERUNG MIT HOHER STEIFIGKEIT UND KLEINEM LINEAREM AUSDEHNUNGSKOEFFIZIENTEN

Title (fr)
ALLIAGE D'ALUMINIUM POUR LE MOULAGE, POSSEDANT UNE RIGIDITE ELEVEE ET UN COEFFICIENT DE DILATATION LINEIQUE FAIBLE

Publication
EP 1728882 B1 20130918 (EN)

Application
EP 05726972 A 20050323

Priority
• JP 2005005225 W 20050323
• JP 2004084256 A 20040323

Abstract (en)
[origin: EP1728882A2] [Objectives] An aluminum alloy for casting that realizes high rigidity and a low linear expansion coefficient, and at the same time, does not have a high cost, and has few restrictions at the time of recycling. [Means for Achieving Objectives] An aluminum alloy for casting with excellent rigidity and having a low coefficient of linear expansion containing 13-25% by mass of silicon, 2-8% by mass of copper, 0.5-3% by mass of iron, 0.3-3% by mass of manganese, 0.001-0.02% by mass of phosphorus, and the remainder comprising aluminum and inevitable impurities, wherein the total amount of iron and manganese is 3.0% by mass or greater. Said alloy may further contain 0.5-6% by mass of nickel, and the total amount of iron, manganese, and nickel may be 3.0% by mass or greater. Further, said alloy may further contain one or more of 0.1-1.0% by mass of chromium, 0.05-1.5% by mass of magnesium, 0.01-1.0% by mass of titanium, 0.0001-1.0% by mass of boron, 0.1-1.0% by mass of zirconium, 0.1-1.0% by mass of vanadium, or 0.01-1.0% by mass of molybdenum.

IPC 8 full level
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Cited by
CN111926222A; CN105838934A; CN103231038A; US2015315688A1; US9834828B2; WO2013050356A1

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