

Title (en)

Method for obtaining improved mechanical properties in recycled aluminium castings free of platelet-shaped beta-phases

Title (de)

Verfahren zum Erhalt verbesserter mechanischer Eigenschaften in rezykliertem Aluminiumguss ohne plättchenförmige Betaphasen

Title (fr)

Procédé pour obtenir des propriétés mécaniques améliorées dans des moulages d'aluminium recyclés dépourvus de phases bêta en forme de plaquettes

Publication

EP 2471967 B1 20140709 (EN)

Application

EP 10382360 A 20101228

Priority

EP 10382360 A 20101228

Abstract (en)

[origin: EP2471967A1] The present invention relates to iron containing aluminium alloys free of primary platelet-shaped beta-phase of the Al 5 FeSi-type in the solidified structure presenting the following chemical composition (in weight %): Si: 6.00 - 9.50; Fe: 0.15 - 0.60; Mn: 0.04 - 0.60; Mg: 0.20 - 0.70; Cr: 0.01 - 0.60; Ti: 0.05 - 0.30; Sr and/or Na: 0.001 - 0.25; V: 0.00 - 0.60; Cu: 0.01 - 0.25; Ni: 0.01 - 0.1; Zn: 0.01 - 0.1; the balance being Al and incidental impurities. The present invention relates also to a process for the preparation of this aluminium alloy and aluminium alloy casting for example as components in aeronautic, automotive and energy industry.

IPC 8 full level

C22C 21/04 (2006.01); **C22C 1/02** (2006.01); **C22C 1/03** (2006.01); **C22F 1/043** (2006.01)

CPC (source: EP)

C22C 1/026 (2013.01); **C22C 1/03** (2013.01); **C22C 21/04** (2013.01); **C22F 1/043** (2013.01)

Cited by

CN110923487A; CN116403755A; CN103290277A; CN115125418A; EP4273286A1; CN113215455A; CN110121566A; US2017121793A1; DE102019205267B3; CN111719068A; EP3124632A1; CN105063392A; US2023407446A1; US11198925B2; US11214496B2; WO2017165962A1; WO2019217319A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 2471967 A1 20120704; EP 2471967 B1 20140709; ES 2507865 T3 20141015; WO 2012089886 A2 20120705; WO 2012089886 A3 20121213

DOCDB simple family (application)

EP 10382360 A 20101228; ES 10382360 T 20101228; ES 2011070911 W 20111228