

Title (en)

HIGH PERFORMANCE AISIMGCU CASTING ALLOY

Title (de)

HOCHLEISTUNGS-ALSIMGCU-GUSS-LEGIERUNG

Title (fr)

ALLIAGE DE MOULAGE PAR COULÉE D'ALSIMGCU À HAUTE PERFORMANCE

Publication

EP 2771493 A2 20140903 (EN)

Application

EP 12787267 A 20121026

Priority

- US 201161628321 P 20111028
- US 2012062250 W 20121026

Abstract (en)

[origin: WO2013063488A2] An aluminum casting alloy has 8.5 - 9.5 wt. % silicon, 0.5 - 2.0 wt. % copper (Cu), 0.27 - 0.53 wt. % magnesium (Mg), wherein the aluminum casting alloy includes copper and magnesium such that $4.7 < (Cu+Mg) < 5.8$, and other elements, the balance being aluminum. Selected elements may be added to the base composition to give resistance to degradation of tensile properties due to exposure to heat. The thermal treatment of the alloy is calculated based upon wt. % composition to solutionize unwanted phases having a negative impact on properties and may include a three level ramp-up and soak to a final temperature followed by cold water quenching and artificial aging.

IPC 8 full level

C22C 21/02 (2006.01); **C22C 21/04** (2006.01)

CPC (source: CN EP)

C22C 21/02 (2013.01 - CN EP); **C22C 21/04** (2013.01 - EP); **C22F 1/043** (2013.01 - CN EP)

Citation (search report)

See references of WO 2013063488A2

Cited by

EP3342890A1; EP3342888A1; EP3342889A1

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DOCDB simple family (publication)

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