Title (en)

HIGH TEMPERATURE STABLE ALUMINIUM ALLOY

Title (de)

HOCHTEMPERATURSTABILE ALUMINIUMLEGIERUNG

Title (fr)

ALLIAGE D'ALUMINIUM STABLE À HAUTE TEMPÉRATURE

Publication

EP 2553131 A4 20170405 (EN)

Application

EP 11763104 A 20110330

Priority

- NO 20100474 A 20100330
- NO 2011000111 W 20110330

Abstract (en)

[origin: WO2011122958A1] The present invention relates to Al-Mg-Si-Cu alloy optimised for high temperature stability The alloy is characterized in that its content of Mg and Si lies within a polygon defined by the following coordinates of an Mg-Si diagram: a1 - a2 - a3 - a4 -a1 where in wt.% a1 = 0.60Mg,0.60Si, a2 = 0.90Mg, 0.90Si, a3 = 1.30 Mg, 0.60 Si and a4 = LOOMg, 0.30Si, and with the additional alloying elements: - Cu between 0.20 and 0.50 wt.% - Fe between 0.08 and 0.40 wt.%, and where at least one of the following elements are added for the purpose of grain structure control during processing of the alloy - Mn between 0 and 0.80 wt.% - Cr between 0 and 0.30 wt.% - Zr between 0 and 0.30 wt.%, and optionally Ti up to 0, 1 wt% and B up to 0,1 wt% as grain refining elements, and further optionally Ge between 0 and 0.20 wt.% and Ag between 0 and 0.20 wt. %, rest Al, including incidental impurities. In the alloy as defined above the L-phase is the dominant precipitate type as regards number density upon over-ageing.

IPC 8 full level

C22C 21/08 (2006.01)

CPC (source: EP)

C22C 21/08 (2013.01)

Citation (search report)

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- See references of WO 2011122958A1

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