

Title (en)

HEAT CONDUCTIVE ALUMINIUM ALLOY AND USE THEREOF

Title (de)

WÄRMELEITENDE ALUMINIUMLEGIERUNG UND VERWENDUNG DAVON

Title (fr)

ALLIAGE D'ALUMINIUM THERMOCONDUCTEUR ET SON UTILISATION

Publication

EP 3546607 A1 20191002 (EN)

Application

EP 17874325 A 20171025

Priority

- CN 201611038514 A 20161123
- CN 2017107692 W 20171025

Abstract (en)

The present disclosure discloses a thermally conductive aluminum alloy and application thereof. The thermally conductive aluminum alloy contains alloying elements, unavoidable impurities and the balance of an aluminum element. Based on the total weight of the thermally conductive aluminum alloy, the alloying elements include: 5.0 to 11.0 wt% of Si, 0.4 to 1.0 wt% of Fe, 0.2 to 1.0 wt% of Mg, less than 0.1 wt% of Zn, less than 0.1 wt% of Mn, less than 0.1 wt% of Sr and less than 0.1 wt% of Cu. The thermally conductive aluminum alloy prepared by the present disclosure has a tensile strength of not less than 250 MPa, a yield strength of not less than 150 MPa, an elongation of not less than 3.5%, and a thermal conductivity of not less than 150 W/(m•K).

IPC 8 full level

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

CPC (source: CN EP KR US)

C22C 21/02 (2013.01 - CN EP US); **C22C 21/04** (2013.01 - KR); **F28F 21/08** (2013.01 - CN KR US); **F28F 21/084** (2013.01 - US); **C22C 2202/00** (2013.01 - US)

Cited by

CN113528899A

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3546607 A1 20191002; **EP 3546607 A4 20200129**; CN 108085541 A 20180529; CN 108085541 B 20200424; JP 2020500265 A 20200109; KR 20190073465 A 20190626; US 2021108290 A1 20210415; WO 2018095186 A1 20180531

DOCDB simple family (application)

EP 17874325 A 20171025; CN 201611038514 A 20161123; CN 2017107692 W 20171025; JP 2019527302 A 20171025; KR 20197014544 A 20171025; US 201716463426 A 20171025