

## Title (en)

Corrosion-resistant aluminium extrusion profile and method for manufacturing a structure component

## Title (de)

Korrosionsbeständiges Aluminiumstrangpressprofil und Verfahren zur Herstellung eines Strukturbauteils

## Title (fr)

Profilé extrudé en aluminium résistant à la corrosion et procédé de fabrication d'un composant de structure

## Publication

**EP 2175042 A1 20100414 (DE)**

## Application

**EP 09011984 A 20090921**

## Priority

DE 102008048374 A 20080922

## Abstract (en)

The corrosion-resistant multi-chamber hollow profile made of alloy of aluminum, silicon and magnesium, comprises a microstructure with form intermetallic phases, whose particles are globulistically formed. The particles of intermetallic phase have a diameter of  $\approx 1 \mu\text{m}$ . An independent claim is included for a method for the production of corrosion-resistant multi-chamber hollow profile.

## Abstract (de)

Die Erfindung betrifft ein korrosionsbeständiges Aluminiumstrangpressprofil aus einer AlSiMg-Legierung, vorzugsweise ein Mehrkammerhohlprofil und Verfahren zur Herstellung eines Strangpressprofils durch Stranggießen, Homogenisierung und eine dem Strangpressen unmittelbar anschließenden Wärmebehandlung.

## IPC 8 full level

**C22C 21/08** (2006.01); **C22F 1/047** (2006.01)

## CPC (source: EP)

**C22C 21/08** (2013.01); **C22F 1/047** (2013.01)

## Citation (applicant)

- CA 2266193 A1 19990920 - ALCAN INT LTD [CA]
- JP H11181539 A 19990706 - SUMITOMO LIGHT METAL IND
- JP 2000282162 A 20001010 - NIPPON STEEL CORP
- M. J. COUPER ET AL., EFFECT OF HOMOGENISATION TEMPERATURE AND TIME ON BILLET MICROSTRUCTURE AND EXTRUDED PROPERTIES OF ALLOY 6061
- N.C. PARSON ET AL., THE EFFECT OF HEAT TREATMENT ON THE MICROSTRUCTURE AND PROPERTIES OF 6000 SERIES ALLOY EXTRUSION INGOTS

## Citation (search report)

- [X] CA 2266193 C 20050215 - ALCAN INT LTD [CA]
- [X] JP H11181539 A 19990706 - SUMITOMO LIGHT METAL IND
- [X] JP 2000282162 A 20001010 - NIPPON STEEL CORP
- [A] EP 1808240 A1 20070718 - SHOWA DENKO KK [JP]
- [A] US 5223050 A 19930629 - BRYANT ANTHONY J [GB], et al
- [A] WO 0238821 A1 20020516 - NORSK HYDRO AS [NO], et al
- [A] US 3104189 A 19630917 - ALFON WAGNER NICHOLAS
- [A] US 6565984 B1 20030520 - WU SHUN [US], et al
- [X] COUPER, M. J. ET AL: "Effect of homogenization temperature and time on billet microstructure and extruded properties of alloy 6061", ALUMINIUM CAST HOUSE TECHNOLOGY, AUSTRALIAN ASIAN PACIFIC CONFERENCE, 7TH, HOBART, AUSTRALIA, SEPT. 23-26, 2001, 287-296. EDITOR(S): WHITELEY, PETER R. PUBLISHER: MINERALS, METALS & MATERIALS SOCIETY, WARRENDALE, PA. CODEN: 69BVQJ, 2001, XP009128629
- [X] PARSON, N. C. ET AL: "The effect of heat treatment on the microstructure and properties of 6000 series alloy extrusion ingots", LIGHT METALS (WARRENDALE, PA, UNITED STATES) 713-24 CODEN: LMPMD; ISSN: 0147-0809, 1989, XP009128616
- [A] CHOU C Y ET AL: "Effects of heat treatments on AA6061 aluminum alloy deformed by cross-channel extrusion", JOURNAL OF MATERIALS PROCESSING TECHNOLOGY, ELSEVIER, NL, vol. 202, no. 1-3, 20 June 2008 (2008-06-20), pages 1 - 6, XP022639866, ISSN: 0924-0136, [retrieved on 20071123]

## Cited by

CN103060634A; US11345980B2; US9970090B2; US10661338B2; WO2024099379A1; EP3938554B1

## Designated contracting state (EPC)

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 SE SI SK SM TR

## Designated extension state (EPC)

AL BA RS

## DOCDB simple family (publication)

**EP 2175042 A1 20100414**; **EP 2175042 B1 20150304**; DE 102008048374 B3 20100415; ES 2537781 T3 20150612

## DOCDB simple family (application)

**EP 09011984 A 20090921**; DE 102008048374 A 20080922; ES 09011984 T 20090921