Title (en)

HIGH-STRENGTH ALUMINUM ALLOY EXTRUDATE WITH EXCELLENT CORROSION RESISTANCE, DUCTILITY, AND HARDENABILITY AND PROCESS FOR PRODUCING SAME

Title (de)

HOCHFESTES ALUMINIUMLEGIERUNGSEXTRUDAT MIT HERVORRAGENDER KORROSIONSBESTÄNDIGKEIT, DUKTILITÄT UND HÄRTBARKEIT SOWIE VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

EXTRUDAT D'ALLIAGE D'ALUMINIUM À HAUTE RÉSISTANCE PRÉSENTANT UNE EXCELLENTE RÉSISTANCE À LA CORROSION, DUCTILITÉ, ET UNE TREMPABILITÉ ET SON PROCÉDÉ DE PRODUCTION

Publication

EP 2811043 B1 20160727 (EN)

Application

EP 13742883 A 20130130

Priority

- JP 2012018486 A 20120131
- JP 2013052002 W 20130130

Abstract (en)

[origin: US2014166165A1] An Al—Mg—Si-based high-strength aluminum alloy extruded shape exhibits excellent corrosion resistance and ductility, and exhibits excellent hardenability during extrusion (i.e., ensures high productivity). A method for producing the same is also disclosed. The high-strength aluminum alloy extruded shape includes 0.65 to 0.90 mass % of Mg, 0.60 to 0.90 mass % of Si, 0.20 to 0.40 mass % of Cu, 0.20 to 0.40 mass % of Fe, 0.10 to 0.20 mass % of Mn, and 0.005 to 0.1 mass % of Ti, with the balance being Al and unavoidable impurities, the aluminum alloy extruded shape having a stoichiometric Mg2Si content of 1.0 to 1.3 mass %, an excess Si content relative to stoichiometric Mg2Si of 0.10 to 0.30 mass %, and a total content of Fe and Mn of 0.35 mass % or more.

IPC 8 full level

C22C 21/06 (2006.01); **B21C 29/00** (2006.01); **C22C 21/02** (2006.01); **C22F 1/00** (2006.01); **C22F 1/05** (2006.01)

CPC (source: EP US)

C22C 21/02 (2013.01 - EP US); **C22C 21/04** (2013.01 - US); **C22C 21/08** (2013.01 - EP US); **C22F 1/00** (2013.01 - EP US); **C22F 1/043** (2013.01 - EP US); **C22F 1/047** (2013.01 - EP US); **C22F 1/05** (2013.01 - EP US)

Citation (opposition)

Opponent : Rio Tinto Alcan International Limitée

- EP 0687743 A1 19951220 - FURUKAWA ELECTRIC CO LTD [JP]
- JP 2003155535 A 20030530 - NIPPON LIGHT METAL CO
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- "Basic Metallurgy: 6000 Series Extrusion Alloys", THE METALLURGY OF HOMOGENIZATION B. RINDERER, 27 July 2011 (2011-07-27), Melbourne, Australia, XP055375637
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DOCDB simple family (publication)

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DOCDB simple family (application)

US 201314232720 A 20130130; CN 201380002929 A 20130130; EP 13742883 A 20130130; JP 2013052002 W 20130130; JP 2013556434 A 20130130