

Title (en)
MAGNESIUM ALLOY PLATE

Title (de)
PLATTE AUS MAGNESIUMLEGIERUNG

Title (fr)
PLAQUE EN ALLIAGE DE MAGNÉSIUM

Publication
EP 2447381 A1 20120502 (EN)

Application
EP 10791969 A 20100608

Priority
• JP 2010059710 W 20100608
• JP 2009152849 A 20090626

Abstract (en)
A magnesium alloy sheet having high impact resistance at low temperature, a magnesium alloy structural member using this sheet, and a method for producing a magnesium alloy sheet are provided. The magnesium alloy sheet is composed of a magnesium alloy containing Al and Mn. When a region from a surface of the alloy sheet to 30% of the thickness of the alloy sheet in a thickness direction of the magnesium alloy sheet is defined as a surface region and when a 50 μm 2 sub-region is arbitrarily selected from this surface region, the number of grains that are crystallized phases containing both Al and Mn is 15 or less. The maximum diameter of each of the crystallized phases is 0.1 to 1 μm and the mass ratio Al/Mn of Al to Mn is 2 to 5. This magnesium alloy sheet has high impact resistance since it contains crystallized phases that are small in size and in amount contained and cause breaking and the like, and exhibits good mechanical properties even in a low-temperature environment.

IPC 8 full level
C22C 23/02 (2006.01); **B21B 1/46** (2006.01); **B21B 3/00** (2006.01); **C22F 1/00** (2006.01); **C22F 1/06** (2006.01)

CPC (source: EP KR US)
B21B 1/46 (2013.01 - KR); **B21B 3/00** (2013.01 - KR); **C22C 23/02** (2013.01 - EP KR US); **C22F 1/00** (2013.01 - EP US);
C22F 1/06 (2013.01 - EP KR US)

Cited by
EP3208356A4; EP2351863A4

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 SE SI SK SM TR

DOCDB simple family (publication)
EP 2447381 A1 20120502; **EP 2447381 A4 20160309**; BR PI1015407 A2 20160809; CN 102803533 A 20121128; CN 102803533 B 20160120; JP 2011006754 A 20110113; KR 20120031008 A 20120329; RU 2012102620 A 20130810; TW 2011111521 A 20110401; US 2012100035 A1 20120426; WO 2010150651 A1 20101229

DOCDB simple family (application)
EP 10791969 A 20100608; BR PI1015407 A 20100608; CN 201080028074 A 20100608; JP 2009152849 A 20090626; JP 2010059710 W 20100608; KR 20117029242 A 20100608; RU 2012102620 A 20100608; TW 99120731 A 20100625; US 201013381009 A 20100608