

Title (en)

Al-Mg-Si based aluminum alloy extrusion

Title (de)

Stranggepresste Al-Mg-Si Legierung auf Aluminium Basis

Title (fr)

Extrusion d'un alliage de Al-Mg-Si à base d'aluminium

Publication

EP 0997547 A1 20000503 (EN)

Application

EP 99120845 A 19991026

Priority

- JP 30561698 A 19981027
- JP 5636899 A 19990304

Abstract (en)

An Al-Mg-Si based aluminum alloy extrusion having large strength, absorbable impact energy and resistance against compressing cracking, wherein the average size of Mg₂Si precipitation in the $\bar{A}1\ 0\ 0\bar{U}$ and $\bar{A}0\ 1\ 0\bar{U}$ directions of the (1 0 0) plane inside grains is 20 nm or more, the distribution density of the Mg₂Si precipitation in the $\bar{A}0\ 0\ 1\bar{U}$ direction of the (1 0 0) plane is 100 or more per μm^2 , and the size of precipitations on grain boundaries is 1000 nm or less. Alternatively, in the Al-Mg-Si based aluminum alloy extrusion, a tensile strength obtained from a tensile test performed at a strain rate of 1000 per second is from 150 to 400 N/mm² (both inclusive).

IPC 1-7

C22C 21/02; **C22C 21/04**; **C22C 21/06**; **C22C 21/08**; **C22F 1/05**

IPC 8 full level

C22C 21/02 (2006.01); **C22C 21/08** (2006.01); **C22F 1/05** (2006.01)

CPC (source: EP US)

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

Citation (search report)

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- [X] EP 0687743 A1 19951220 - FURUKAWA ELECTRIC CO LTD [JP]
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- [X] PATENT ABSTRACTS OF JAPAN vol. 1995, no. 04 31 May 1995 (1995-05-31)
- [X] PATENT ABSTRACTS OF JAPAN vol. 1997, no. 01 31 January 1997 (1997-01-31)
- [X] PATENT ABSTRACTS OF JAPAN vol. 1997, no. 03 31 March 1997 (1997-03-31)
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