

Title (en)

High strength Aluminium alloy for use in a heat exchanger

Title (de)

Hochfeste Aluminium-Legierung für Wärmetauscher

Title (fr)

Alliage d'aluminium avec une haute tenacité pour un échangeur de chaleur

Publication

EP 1505163 A3 20050216 (DE)

Application

EP 03029964 A 20031230

Priority

- EP 03029964 A 20031230
- EP 03016970 A 20030725

Abstract (en)

[origin: WO2005010223A1] The invention relates to a cold-hardened aluminium alloy for heat exchangers, a method for production of a cold-hardened aluminium strip or sheet and an aluminium strip or sheet. According to the invention, a cold-hardened aluminium alloy for heat exchangers may be provided which permits an economic application of inert gas shielded welding for the production of heat exchangers and with high resistance after a natural hardening after the welding, whereby the aluminium alloy has the following alloy components in wt. %: Si <= 0.7%, 0.1% <= Mg <= 1, Fe <= 0.3%, 0.08% <= Cu <= 0.2%, Ti <= 0.2%, Mn <= 0.1%, Cr <= 0.1%, Zn <= 0.1%, unavoidable impurities individually max. 0.1%, in total max. 0.15% and remainder aluminium.

IPC 1-7

C22C 1/02; C22F 1/05

IPC 8 full level

C22C 1/02 (2006.01); **C22C 21/06** (2006.01); **C22C 21/08** (2006.01); **C22F 1/047** (2006.01); **C22F 1/05** (2006.01)

CPC (source: EP KR)

C22C 1/02 (2013.01 - KR); **C22C 21/06** (2013.01 - EP); **C22C 21/08** (2013.01 - EP); **C22F 1/047** (2013.01 - EP); **C22F 1/05** (2013.01 - EP KR)

Citation (search report)

- [X] GB 1413719 A 19751112 - CEGEDUR
- [X] US 2002174923 A1 20021128 - TAGUCHI KYOHEI [JP], et al
- [X] EP 1158063 A1 20011128 - NORSK HYDRO AS [NO]
- [A] US 3852873 A 19741210 - CHARTET A
- [X] PATENT ABSTRACTS OF JAPAN vol. 018, no. 040 (C - 1155) 21 January 1994 (1994-01-21)
- [X] J.R.DAVIS: "ASM Speciality Handbook", March 1996, ASM INTERNATIONAL, USA, ISBN: 0-87170-496-X, XP002308401

Cited by

DE102008059450A1; US10926361B2; CN115427188A; EP4309839A3; WO2021204929A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2005010223 A1 20050203; AU 2004259849 A1 20050203; BR PI0412907 A 20060926; CA 2533428 A1 20050203; EA 200600211 A1 20060825; EP 1505163 A2 20050209; EP 1505163 A3 20050216; EP 1649070 A1 20060426; JP 2007500784 A 20070118; KR 20060030910 A 20060411

DOCDB simple family (application)

EP 2004008359 W 20040726; AU 2004259849 A 20040726; BR PI0412907 A 20040726; CA 2533428 A 20040726; EA 200600211 A 20040726; EP 03029964 A 20031230; EP 04763503 A 20040726; JP 2006521503 A 20040726; KR 20067001679 A 20060124