Title (en)

Aluminium sheet for lithographic printing plate support having high resistance to bending cycles

Title (de)

Aluminiumband für lithographische Druckplattenträger mit hoher Biegewechselbeständigkeit

Title (fr)

Bande en aluminium pour support de plaque d'impression lithographique à haute résistance à la flexion alternée

Publication

EP 2192202 B2 20220112 (DE)

Application

EP 08105850 A 20081121

Priority

EP 08105850 A 20081121

Abstract (en)

[origin: EP2192202A1] The aluminum alloy (11) comprises alloy components having iron (0.4-0.65 wt.%), magnesium (0.4-0.65 wt.%), silicon (0.05-0.25 wt.%), manganese (0.08 wt.%), copper (0.04 wt.%), titanium (0.05 wt.%), zinc (0.05 wt.%), chromium (0.01 wt.%), residues of aluminum and unavoidable impurities of no more than 0.01 wt.% each and no more than 0.05 wt.% in total. Independent claims are included for: (1) an aluminum strip for producing lithographic printing plate supports; and (2) a method for producing an aluminum strip.

IPC 8 full level

C22C 21/00 (2006.01); **B41N 1/08** (2006.01); **C22C 21/06** (2006.01); **C22F 1/04** (2006.01); **C22F 1/047** (2006.01)

CPC (source: EP KR US)

B41N 1/08 (2013.01 - KR); **B41N 1/083** (2013.01 - EP US); **C22C 21/00** (2013.01 - EP KR US); **C22C 21/06** (2013.01 - EP US); **C22F 1/04** (2013.01 - EP KR US); **C22F 1/047** (2013.01 - EP US)

Citation (opposition)

Opponent :

- JP S62181190 A 19870808 - FURUKAWA ALUMINIUM, et al
- JP S5579850 A 19800616 - FURUKAWA ALUMINIUM
- WO 2007045676 A1 20070426 - HYDRO ALUMINIUM DEUTSCHLAND [DE], et al
- US 4818300 A 19890404 - ROOY ELWIN L [US], et al
- JP 2007083256 A 20070405 - FUJIFILM CORP
- JP 2005002429 A 20050106 - MITSUBISHI ALUMINIUM
- JP S63135294 A 19880607 - FURUKAWA ALUMINIUM, et al
- D.G. ALTENPOHL: "Aluminium: Technology, Applications, and Environment", May 2010, article "Chapter 7.6.3 - Fatigue strength"
- DR. CATRIN KAMMER: "Aluminium-Taschenbuch, 15. auflage, Band 1: Grundlagen und Werkstoffe", vol. 1, 1995, pages: 155
- PROF. J.A. POPE: "The Fatigue of Metals", November 1957, CHAPMAN AND HALL LTD., article G. FORREST ET AL.: "Fatigue Properties of Aluminium Alloys"
- J. C. GROSSKREUTZ ET AL.: "Critical Mechanisms in the Development of Fatigue Cracks in 2024-T4 Aluminum", TECHNICAL REPORT AFML-TR-68-137, May 1968 (1968-05-01)
- W. M. JOHNSTON: "Fracture Tests on Thin Sheet 2024-T3 Aluminum Alloy for Specimens With and Without Anti-Buckling Guides", NASA REPORT CR-2001-210832, March 2001 (2001-03-01)
- "Aluminium 1 - Bander, Bleche Platten, Folien, Butzen, Ronden, Geschweisste Rohre, Vormaterial Normen", DIN TASCHENBUCH 450, 1997
- KAMMER, CATRIN: "Aluminium-Taschenbuch, 15. auflage", 1 January 1995, ALUMINIUM VERLAG, article "Band 1. Grundlagen und Werkstoffe", pages: 522,538 - 539

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WO2017182506A1; US10696040B2

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 MT NL NO PL PT RO SE SI SK TR

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EP 2192202 A1 20100602; **EP 2192202 B1 20160706**; **EP 2192202 B2 20220112**; **EP 2192202 B9 20161130**; BR PI0922063 A2 20151215; BR PI0922063 B1 20210504; BR PI0922063 B8 20230110; CN 102308011 A 20120104; CN 102308011 B 20151125; ES 2587024 T3 20161020; JP 2012509404 A 20120419; KR 20110094317 A 20110823; US 10927437 B2 20210223; US 2011290381 A1 20111201; WO 2010057959 A1 20100527

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EP 08105850 A 20081121; BR PI0922063 A 20091119; CN 200980146724 A 20091119; EP 2009065508 W 20091119; ES 08105850 T 20081121; JP 2011536870 A 20091119; KR 20117014333 A 20091119; US 201113112588 A 20110520