

Title (en)
Process for making aluminium-iron alloy foil

Title (de)
Verfahren zur Herstellung von Folie aus Aluminium-Eisen-Legierung

Title (fr)
Procédé de fabrication de bandes très minces en alliage aluminium-fer

Publication
EP 1184474 B1 20060208 (FR)

Application
EP 01420178 A 20010806

Priority
FR 0011025 A 20000829

Abstract (en)
[origin: EP1184474A1] Aluminum alloy strips of thickness of at most 12 microns comprises continuous casting of a 2-10 mm thick Al alloy strip containing Si, Fe and Mn between casting cylinders, homogenizing at 450-620 degrees C for 8-40 hours, cold rolling, intermediate annealing at 200-400 degrees C for 8-15 hours, cold rolling to final thickness, and final annealing at 200-300 degrees C for at least 5 hours. Preferred Features: The aluminum alloy comprises (in weight %): 0.15-0.40 Si; 1.10-1.70 Fe; less than 0.02 Mg; 0.30-0.50 Mn; other elements less than 0.05 each and less than 0.15 in total; and the balance Al. The ultra-thin Al strip is preferably less than 9 microns thick. Fe content is less than 1.40 weight %. Intermediate annealing is preferably a single process carried out between the two rolling stages. Independent claims are given for: (a) an aluminum alloy strip manufactured by the above method and having a breaking strength (Rm) greater than 100 MPa, an elastic limit (R 0.2) greater than 80 MPa, elongation at breakage (A) greater than 3% and a porosity according to the standard EN 546-4 less than 10 holes/square dm; and (b) utilization of the strip for the fabrication of brick-type aseptic packaging for food.

IPC 8 full level
C22C 21/00 (2006.01); **B22D 11/04** (2006.01); **C22F 1/04** (2006.01)

CPC (source: EP US)
C22C 21/00 (2013.01 - EP US); **C22F 1/04** (2013.01 - EP US)

Cited by
CN113444924A

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
EP 1184474 A1 20020306; EP 1184474 B1 20060208; AR 037074 A1 20041020; AT E317459 T1 20060215; AU 8600701 A 20020313; BR 0113532 A 20030729; BR 0113532 B1 20100908; CA 2354828 A1 20020228; CA 2354828 C 20091020; CN 1226437 C 20051109; CN 1449454 A 20031015; DE 60117118 D1 20060420; DE 60117118 T2 20060803; DK 1184474 T3 20060515; ES 2257389 T3 20060801; FR 2813316 A1 20020301; FR 2813316 B1 20021018; MY 122535 A 20060429; NO 20030932 D0 20030227; NO 20030932 L 20030227; RU 2254392 C2 20050620; US 2002043310 A1 20020418; US 2003079812 A1 20030501; US 6517646 B2 20030211; WO 0218665 A1 20020307

DOCDB simple family (application)
EP 01420178 A 20010806; AR P010104099 A 20010828; AT 01420178 T 20010806; AU 8600701 A 20010824; BR 0113532 A 20010824; CA 2354828 A 20010806; CN 01814794 A 20010824; DE 60117118 T 20010806; DK 01420178 T 20010806; ES 01420178 T 20010806; FR 0011025 A 20000829; FR 0102664 W 20010824; MY PI20014032 A 20010828; NO 20030932 A 20030227; RU 2003108739 A 20010824; US 30917002 A 20021204; US 92743801 A 20010813