

Title (en)

Strong, formable, isotropic aluminium alloys for deep drawing

Title (de)

Zum Tiefziehen geeignete hochfeste verformbare isotropische Legierungen auf Aluminiumbasis

Title (fr)

Alliages d'al pour emboutissage-étirage résistants, formables et isotropes

Publication

**EP 0504077 B1 19961009 (FR)**

Application

**EP 92420073 A 19920312**

Priority

- CA 2077315 A 19920901
- FR 9103662 A 19910314

Abstract (en)

[origin: EP0504077A1] Al-based alloys intended for deep drawing and/or drawing and exhibiting high mechanical strength characteristics as well as good isotropy (low distortion wedge content) and good cold processability. The alloys according to the invention have the following compositions by weight (%): (I) (II) Fe  $\leq$  0.25 from 0.7 to 1.5 Si  $\leq$  0.25  $\leq$  0.4 Mn from 0.8 to 1.6  $\leq$  0.8 Mg from 0.7 to 2.5 from 1.5 to 3 Cu from 0 to 0.6 from 0 to 0.6 Cr from 0 to 0.35 from 0 to 0.35 Ti from 0 to 0.1 from 0 to 0.1 V from 0 to 0.1 from 0 to 0.1 Remainder Al and unavoidable remainder Al and unavoidable impurities: impurities Each  $\leq$  0.05%  $\leq$  0.05 Total  $\leq$  0.15%  $\leq$  0.15 They are particularly well-suited for the manufacture of drawn cans, particularly beverage cans, which are lighter and/or stronger with an increased saving of material, the manufacturing range being wholly comparable with that of the conventional alloys (3004/3104), with optional omission of the intermediate annealing operations.

IPC 1-7

**C22C 21/06**; **C22C 21/00**; **C22F 1/047**

IPC 8 full level

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

CPC (source: EP)

**C22C 21/00** (2013.01); **C22C 21/06** (2013.01); **C22F 1/047** (2013.01)

Citation (examination)

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- CHEMICAL ABSTRACTS, vol. 100, no. 12, 12 Mars 1984, Columbus, Ohio, US; abstract no. 90038D, 'HARD ALUMINIUM ALLOY SHEET OF LOW EARING RATIO FOR CAN BODIES' page 268 ;colonne 1 ; & JP-A-58 126 967 (KOBELITE LTD) 28 Juillet 1983
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