

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-étrirage résistants, formables et isotropes.

Publication

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Application

EP 92420073 A 19920312

Priority

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- FR 9103662 A 19910314

Abstract (en)

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.

Abstract (fr)

L'invention concerne des alliages à base d'Al destinés à l'emboutissage et/ou à l'étrirage et présentant des caractéristiques mécaniques de résistance élevées ainsi qu'une bonne isotropie (faible taux de cornes) et une bonne formabilité à froid. Les alliages selon l'invention possèdent les compositions pondérales suivantes (%) : <IMAGE> Ils sont particulièrement bien adaptés pour la fabrication de boîtes étirées, particulièrement de boîtes-boissons, plus légères et/ou plus résistantes avec une économie de matière accrue, la gamme de fabrication étant tout à fait comparable à celle des alliages classiques (3004/3104), avec omission éventuelle des recuits intermédiaires. <IMAGE>

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IPC 8 full level

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CPC (source: EP)

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

Citation (search report)

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