

Title (en)  
ALUMINUM ALLOY SHEET WITH EXCELLENT HIGH-TEMPERATURE PROPERTY FOR BOTTLE CAN

Title (de)  
BLECH AUS ALUMINIUMLEGIERUNG MIT HERVORRAGENDEM HOCHTEMPERATURVERHALTEN FÜR FLASCHENDOSE

Title (fr)  
TÔLE D'ALLIAGE D'ALUMINIUM AYANT UNE EXCELLENTE PROPRIÉTÉ DE RÉSISTANCE À HAUTE TEMPÉRATURE POUR UNE BOÎTE EN ALUMINIUM

Publication  
**EP 1870481 A4 20080528 (EN)**

Application  
**EP 06715351 A 20060307**

Priority

- JP 2006304381 W 20060307
- JP 2005089369 A 20050325
- JP 2005089370 A 20050325
- JP 2005089371 A 20050325

Abstract (en)  
[origin: EP1870481A1] An aluminum alloy sheet for bottle cans superior in high-temperature properties and capable of preventing thermal deformation thereof in coating and heat treatment and securing can strength after the heat treatment. The aluminum alloy sheet has the following composition: Mn 0.7-1.5%, Mg 0.8-1.7%, Fe 0.1-0.7%, Si 0.05-0.5%, Cu 0.1-0.6%, with the remainder being Al and inevitable impurities, and has a crystal structure elongated in a rolling direction and with an aspect ratio of crystal grains of 3 or more as determined through an examination from above of a part located at the center in the through-thickness direction. In the sheet, the amount of solute Cu is 0.05-0.3%, which means the amount of Cu in a solution separated from a precipitate exceeding 0.2 μm in particle size by the extracted residue method using hot phenol, and the amount of solute Mg is 0.75-1.6%, which means the amount of solute Mg separated from a precipitate exceeding 0.2 μm in particle size by the extracted residue method using hot phenol. The aluminum alloy sheet can have improved high-temperature properties without impairing its formability.

IPC 8 full level  
**C22C 21/06** (2006.01); **C22C 21/00** (2006.01); **C22F 1/00** (2006.01); **C22F 1/04** (2006.01); **C22F 1/047** (2006.01)

CPC (source: EP KR US)  
**C22C 21/00** (2013.01 - EP KR US); **C22C 21/06** (2013.01 - KR); **C22C 21/08** (2013.01 - EP US)

Citation (search report)

- [XD] JP 2003342657 A 20031203 - KOBE STEEL LTD
- [A] JP 2004244701 A 20040902 - KOBE STEEL LTD
- [A] JP H10310837 A 19981124 - FURUKAWA ELECTRIC CO LTD
- [A] JP H11140576 A 19990525 - FURUKAWA ELECTRIC CO LTD
- See references of WO 2006103887A1

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**EP 06715351 A 20060307**; CA 2602657 A 20060307; EP 10010378 A 20060307; EP 10010379 A 20060307; JP 2006304381 W 20060307; KR 20077021791 A 20060307; US 90966506 A 20060307