

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 A1 20071226 (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)
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
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CPC (source: EP KR US)
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Cited by
KR20170084285A; RU2668357C2; AU2016233621B2; RU2687791C2; US11433441B2; WO2016100800A1; US10006108B2; WO2016149061A1; WO2015107284A1; US10675669B2; WO2014184450A1; US10577683B2; EP3137641B1

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