

Title (en)

Process for manufacturing painted automotive body parts from aluminium alloy

Title (de)

Verfahren zur Herstellung lackierter Automobil-Karosserieteile aus einer Aluminiumlegierung

Title (fr)

Procédé de fabrication d'éléments de carrosserie automobile peints à partir d'un alliage d'aluminium

Publication

**EP 1297903 B1 20060809 (DE)**

Application

**EP 01810950 A 20010928**

Priority

EP 01810950 A 20010928

Abstract (en)

[origin: EP1297903A1] Production of lacquered car chassis parts made from aluminum alloy comprises: cold working a hot-rolled strip; solution annealing the strip; cooling at specified rate; aging to produce the heat treatment state T4; cold rolling to a final thickness having a thickness reduction of 1.5-18%; applying a conversion layer to strip; applying one or more lacquer layers; and deforming to form chassis parts. <??>Production of lacquered car chassis parts made from an aluminum alloy containing alloying additions of 0.3-0.9 wt.% magnesium and 0.5-1.2 wt.% silicon comprises: cold working a hot-rolled strip; solution annealing the rolled strip for 10-100 seconds at 540-575 degrees C; cooling at a rate of 20-300 degrees C/second to 200 degrees C or less; aging to produce the heat treatment state T4; cold rolling to a final thickness having a thickness reduction of 1.5-18%; applying a conversion layer to the strip; applying one or more lacquer layers; and deforming to form the chassis parts. <??>Preferred Features: A surface texture is applied to the finished strip using a working roller roughened according electrical discharge texturing.

IPC 8 full level

**B05D 7/14** (2006.01); **B05D 3/12** (2006.01); **C22F 1/05** (2006.01); **B05D 3/02** (2006.01)

CPC (source: EP)

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Cited by

CN115011848A; US11213870B2; US11426777B2; US11638941B2

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