

Title (en)

Method of manufacturing a structural automotive part made from a rolled Al-Zn alloy

Title (de)

Verfahren zur Herstellung eines Automobilstrukturteils aus einer gewalzten Al-Zn-Legierung

Title (fr)

Procédé de fabrication d'une pièce automobile de structure à partir d'un alliage Al-Zn laminé

Publication

EP 2479305 A1 20120725 (EN)

Application

EP 11151732 A 20110121

Priority

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Abstract (en)

The invention relates to method of manufacturing a formed aluminium alloy structural part or a body-in-white (BIW) part of a motor vehicle, the method comprising: (a) providing a rolled aluminium sheet product wherein the aluminium alloy is an AA7000 series aluminium alloy and having a gauge in a range of 0.5 to 4 mm and being subjected to a solution heat treatment and having been cooled, (b) forming the aluminium alloy sheet to obtain a three-dimensional formed part, (c) cooling of the formed part to a sub-zero temperature (T1) by immersing in a coolant, and allowing the formed part to reach equilibrium at said sub-zero temperature (T1), (d) heating of the formed part from the sub-zero temperature (T1) to a temperature T2 above 40°C, followed by cooling to ambient temperature, and (e) subjecting said motor vehicle component to a paint bake cycle.

IPC 8 full level

C22C 21/10 (2006.01); **C22F 1/053** (2006.01)

CPC (source: EP)

C22C 21/10 (2013.01); **C22F 1/053** (2013.01)

Citation (search report)

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