

Title (en)
SHEET MADE OF ALUMINUM ALLOY FOR THE STRUCTURE OF A MOTOR VEHICLE BODY

Title (de)
KAROSSERIETEIL AUS ALUMINIUMLEGIERUNG FÜR KAROSSERIESTRUKTUR EINES KRAFTFAHRZEUGS

Title (fr)
TOLE EN ALLIAGE D'ALUMINIUM POUR STRUCTURE DE CAISSE AUTOMOBILE

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Application
EP 17162984 A 20140709

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Abstract (en)
[origin: WO2015004340A1] The invention relates to the use of a sheet made of an aluminum alloy for manufacturing a stamped bodywork or structural part of a motor vehicle body, also referred to as a blank body, wherein said sheet has a yield strength Rp0.2 no lower than 60 MPa and a tensile elongation Ag0 no lower than 34%. The invention also relates to a method for making such a stamped bodywork or structural part for a motor vehicle body, made from said sheet and selected in the group including inner panels or linings for car doors, a passenger compartment floor, a boot floor, a spare wheel housing, or even a passenger compartment side.

Abstract (fr)
L'invention a pour objet l'utilisation d'une tôle en alliage d'aluminium pour fabriquer une pièce emboutie de carrosserie ou structure de caisse automobile encore appelée « caisse en blanc », ladite tôle présentant une limite d'élasticité Rp 0,2 supérieure ou égale à 60 MPa et un allongement en traction uni axiale A 80 supérieur ou égal à 34 %. L'invention a également pour objet le procédé de fabrication d'une telle pièce emboutie de carrosserie ou structure de caisse automobile fabriquée à partir de ladite tôle et choisie par exemple dans le groupe comprenant les panneaux intérieurs ou doublures de portières, plancher d'habitacle, plancher de coffre, logement de roue de secours ou encore côté d'habitacle.

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Citation (applicant)
• EP 1305179 B1 20050928 - NOTHELDER GMBH [DE]
• EP 1601478 B1 20071017 - ALCAN RHENALU [FR]
• JP 2003305503 A 20031028 - MITSUBISHI ALUMINIUM
• J.R.DAVIS: "Aluminum and Aluminum Alloys - ASM Specialty Handbook", 1993, article "Chapter: Properties of Wrought Aluminum and Aluminum Alloys"
• ISO 6892-1, 2009, pages 19
• R. THOMPSON: "The LDH test to evaluate sheet metal formability - Final Report of the LDH Committee of the North American Deep Drawing Research Group", SAE CONFERENCE, 1993

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