Title (en)

ALUMINUM ALLOY AND ALUMINUM ALLOY STRIP FOR PEDESTRIAN IMPACT PROTECTION

Title (de)

ALUMINIUMLEGIERUNG UND ALUMINIUMLEGIERUNGSBAND FÜR DEN FUSSGÄNGERAUFPRALLSCHUTZ

Title (fr)

ALLIAGE D'ALUMINIUM POUR LA PROTECTION DES PIÉTONS CONTRE LA COLLISION

Publication

EP 3497256 A2 20190619 (DE)

Application

EP 17751111 A 20170815

Priority

- EP 16184151 A 20160815
- EP 2017070676 W 20170815

Abstract (en)

[origin: WO2018033537A2] The invention relates to an aluminum alloy for vehicle applications, an aluminum alloy strip made from the aluminum alloy according to the invention and a sheet-metal body part of a motor vehicle produced from the aluminum alloy strip according to the invention. The aim of the invention is to provide an aluminum alloy for vehicle applications, which can be processed using conventional process steps to form a strip, so that, with a moderate strength level, the produced strip shows only a low tendency for curing from the state T4 and that a use for pedestrian impact protection is possible. Said aim is achieved in that the aluminum alloy has the following alloying constituents (in percent by weight): 0.4 wt.% ≤ Si ≤ 0.55 wt.%, 0.15 wt.% ≤ Fe ≤ 0.25 wt.%, Cu ≤ 0.06 wt.%, 0.15 wt.% ≤ Mn ≤ 0.4 wt.%, 0.33 wt.% ≤ Mg ≤ 0.4 wt.%, Cr ≤ 0.03 wt.%, 0.01 wt.% ≤ Ti ≤ 0.10 wt.%, the remainder Al and unavoidable impurities of at most 0.05 wt.% individually and at most 0.15 wt.% in total.

IPC 8 full level

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CPC (source: EP US)

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