

Title (en)

ALUMINIUM ALLOY STRIP OPTIMISED FOR FORMING, AND METHOD FOR MANUFACTURING SAME

Title (de)

UMFORMOPTIMIERTES ALUMINIUMLEGIERUNGSBAND UND VERFAHREN ZUR HERSTELLUNG

Title (fr)

BANDE D'ALLIAGE D'ALUMINIUM OPTIMISÉE POUR LE FORMAGE, ET SON PROCÉDÉ DE FABRICATION

Publication

EP 4396387 A1 20240710 (DE)

Application

EP 22772912 A 20220901

Priority

- EP 21194864 A 20210903
- EP 2022074329 W 20220901

Abstract (en)

[origin: WO2023031334A1] The invention relates to an aluminium alloy strip made of an aluminium alloy, to a method for manufacturing the aluminium alloy strip, and to its preferred use. The task of providing an aluminium alloy strip, in particular for manufacturing body parts of a motor vehicle, preferably interior body parts, which aluminium alloy strip provides the necessary strengths and at the same time improved forming properties in addition to the necessary resistance to intercrystalline corrosion, is solved in that the aluminium alloy strip has an aluminium alloy having the following composition in % by weight: $\text{Si} \leq 0.10\%$, $\text{Fe} \leq 0.25\%$, $0.20\% \leq \text{Mn} \leq 0.30\%$, $4.72\% \leq \text{Mg} \leq 4.95\%$, $\text{Cu} \leq 0.10\%$, $\text{Cr} \leq 0.02\%$, $\text{Ni} \leq 0.01\%$, $\text{Zn} \leq 0.10\%$, $\text{Ti} \leq 0.04\%$, remainder Al with unavoidable impurities individually $\leq 0.05\%$, in total $\leq 0.15\%$, wherein the aluminium alloy strip has an average secondary phase density of less than 250 per 1000 μm^2 , wherein the total number of secondary phases determined in at least 10 measuring fields in relation to the total measuring area of all measuring fields examined gives the secondary phase density.

IPC 8 full level

C22C 21/06 (2006.01); **C22C 21/08** (2006.01); **C22F 1/047** (2006.01)

CPC (source: EP US)

C21D 8/0226 (2013.01 - US); **C21D 8/0236** (2013.01 - US); **C21D 8/0273** (2013.01 - US); **C22C 21/06** (2013.01 - EP); **C22C 21/08** (2013.01 - EP US); **C22F 1/047** (2013.01 - EP US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

WO 2023031334 A1 20230309; **WO 2023031334 A9 20230504**; CN 117897511 A 20240416; EP 4396387 A1 20240710; US 2024200171 A1 20240620

DOCDB simple family (application)

EP 2022074329 W 20220901; CN 202280059540 A 20220901; EP 22772912 A 20220901; US 202418587065 A 20240226