

Title (en)

ALUMINIUM ALLOY STRIP WHICH IS RESISTANT TO INTERCRYSTALLINE CORROSION AND METHOD FOR PRODUCING SAME

Title (de)

GEGEN INTERKRISTALLINE KORROSION BESTÄNDIGES ALUMINIUMLEGIERUNGSBAND UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

BANDE D'ALLIAGE EN ALUMINIUM RÉSISTANT À LA CORROSION INTERCRISTALLINE ET SON PROCÉDÉ DE FABRICATION

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Application

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Abstract (en)

[origin: WO2014029853A1] The invention relates to an aluminum alloy strip composed of an AA 5xxx-type aluminum alloy containing at least 4 wt.% of Mg in addition to Al and inevitable impurities. The aim of the invention is to design an AlMg aluminum alloy strip which is resistant to intergranular corrosion also at high strength and even when the alloy contains at least 4 wt.% of Mg. According to a first teaching of the present invention, said aim is achieved by an aluminum alloy strip that has a recrystallized structure, the grain size (KG) of which in mum has the following relation to the Mg content (c_Mg) in wt. %: $KG \geq 22 + 2 \cdot c_Mg$, the aluminum alloy of the aluminum alloy strip having the following composition in wt. %: Si \leq 0.2 %, Fe \leq 0.35 %, 0.04 % \leq Cu \leq 0.08 %, 0.2 % \leq Mn \leq 0.5 %, 4.35 % \leq Mg \leq 4.8 %, Cr \leq 0.1 %, Zn $<$ 0.25 %, Ti \leq 0.1 %, the remainder consisting of Al and inevitable impurities, each of which amounts to no more than 0.05 wt.% and the total amount of which amounts to no more than 0.15 wt. %.

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