

Title (en)

ALUMINIUM-BASED COATING FOR STEEL SHEETS OR STEEL STRIPS AND METHOD FOR THE PRODUCTION THEREOF

Title (de)

ALUMINIUMBASIERTE BESCHICHTUNG FÜR STAHLBLECHE ODER STAHLBÄNDER UND VERFAHREN ZUR HERSTELLUNG HIERZU

Title (fr)

REVÊTEMENT À BASE D'ALUMINIUM POUR TôLES D'ACIER OU BANDES D'ACIER ET PROCÉDÉ POUR LEUR FABRICATION

Publication

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Application

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Abstract (en)

[origin: WO2017137304A1] The invention relates to an aluminium-based coating for steel sheets or steel strips, the coating comprising an aluminium-based coat applied in a hot-dip coating method, a covering layer containing aluminium oxide and/or hydroxide being arranged on the coat. The aim of the invention is to provide an aluminium-based coating which is highly suitable for hot forming and cold forming. To this end, the covering layer is produced by means of plasma oxidation and/or hot water treatment at temperatures of at least 90°C, advantageously at least 95°C, and/or steam treatment at temperatures of at least 90°C, advantageously at least 95°C. Alternatively, the covering layer containing aluminium oxide and/or hydroxide can be produced by anodic oxidation, the coat being produced in a molten bath with a Si content of between 8 and 12 wt. %, and an Fe content of between 1 and 4 wt. %, the remainder being aluminium. The invention also relates to a method therefor and to a method for producing press-hardened components therewith, and to the associated press-hardened component.

IPC 8 full level

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