

Title (en)

COMPONENT WITH INTEGRATED ALUMINUM DIFFUSION LAYER AND ALUMINUM OXIDE LAYER

Title (de)

BAUTEIL MIT INTEGRIERTER ALUMINIUMDIFFUSIONSSCHICHT UND ALUMINIUMOXIDSCHICHT

Title (fr)

COMPOSANT DOTÉ D'UNE COUCHE DE DIFFUSION D'ALUMINIUM ET D'UNE COUCHE D'OXYDE D'ALUMINIUM INTÉGRÉES

Publication

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Application

**EP 22758146 A 20220720**

Priority

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Abstract (en)

[origin: WO2023001869A1] The invention relates to a component with a part (1) which is made of low-alloy steel and/or heat-treatable steel. The part (1) is at least partly coated with an aluminum diffusion layer (10), and an aluminum oxide layer (14) is applied onto the aluminum diffusion layer (10). The layer thickness of the aluminum diffusion layer (10) equals 1 – 200 µm, and the aluminum diffusion layer (10) has an aluminum content of 10 wt.% above the aluminum content of the steel, based on the total weight of the aluminum diffusion layer, up to a maximum concentration, wherein the aluminum content in the aluminum diffusion layer (10) continuously increases from 10 wt.% to the maximum concentration in the direction of the boundary surface (12) between the aluminum diffusion layer (10) and the aluminum oxide layer (14), said maximum concentration equaling 11 – 60 wt.%.

IPC 8 full level

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