

Title (en)
ELECTRICAL STEEL SHEET WITH A COATING IMPROVING THE ELECTRICAL INSULATION AND METHOD OF ITS MANUFACTURE

Title (de)
ELEKTROBLECH MIT EINER DIE ELEKTRISCHE ISOLATION VERBESSERNDEN SCHICHT UND VERFAHREN ZU DESSEN HERSTELLUNG

Title (fr)
TÔLE D'ACIER ÉLECTRIQUE AVEC UN REVÊTEMENT POUR AMÉLIORER L'ISOLATION ÉLECTRIQUE ET PROCÉDÉ DE SA FABRICATION

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Abstract (en)
[origin: CA2911552A1] The invention relates to an electrical steel sheet (11) with a layer (14) improving the electrical insulation. According to the invention, this layer is formed from tantalum oxide or titanium oxide, wherein a diffusion zone (15) that is enriched with tantalum or titanium adjoins toward the interior of the electrical steel sheet (11). This has the advantage that the layer adheres better on the electrical steel sheet (11). Furthermore, the tantalum or titanium of the diffusion zone (15) can also be used as a depot, which has the effect of spontaneously passivating impairments of the layer (14). Therefore, corrosion protection is ensured even when there are impairments of said layer (14). The invention also relates to a method for producing an electrical steel sheet in the way described.

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