

Title (en)

Method for producing a non-grain oriented electrical steel strip or sheet and a non-grain oriented electrical steel strip or sheet produced according to this method

Title (de)

Nicht kornorientiertes Elektroband oder -blech und Verfahren zur Erzeugung eines nicht kornorientierten Elektrobands oder -blechs

Title (fr)

Bande ou tôle électrique à grains non orientés et procédé de production d'une bande ou tôle électrique à grains non orientés

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2015024723A1] The invention relates to a non-grain-oriented electrical steel strip or electrical steel sheet for electrical applications, produced from a steel which, in addition to iron and unavoidable impurities, contains (in wt%) Si: 2.0 - 4.5%, Zr: 0.03 - 0.3%, Al: up to 2.0%, Mn: up to 1.0%, C: up to 0.01%, N: up to 0.01%, S: up to 0.001%, P: up to 0.015%, wherein ternary Fe-Si-Zr precipitations are present in the microstructure of the electrical steel strip or electrical steel sheet. By means of precipitation hardening or particle hardening, the ternary Fe-Si-Zr precipitations present in the microstructure of an electrical steel strip or electrical steel sheet according to the invention increase the strength of non-grain-oriented electrical steel strips or electrical steel sheets produced from steel according to the invention, without said ternary Fe-Si-Zr precipitations having a decisive influence on the electromagnetic properties. The invention further relates to a method for producing such electrical steel strips and electrical steel sheets.

IPC 8 full level

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CPC (source: EP US)

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