

Title (en)

NON-GRAIN ORIENTED ELECTRIC SHEET STEEL OR STRIP AND METHOD FOR THE PRODUCTION THEREOF

Title (de)

NICHTKORNORIENTIERTES ELEKTROBLECH ODER -BAND UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

TOLE OU BANDE MAGNETIQUE A GRAINS NON ORIENTES ET PROCEDE DE FABRICATION DE LADITE TOLE OU BANDE

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Application

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Abstract (en)

[origin: WO03014404A1] The invention relates to a non-grain oriented electric sheet steel or strip obtained from a steel melt of the following composition (in wt. %): Si: ≤ 1.8 %, Al: < 1 %, C: ≤ 0.0200 %, Mn < 0.5 %, Sn: ≤ 0.03 %, Sb: ≤ 0.1 %, P: ≤ 0.1 %, S: < 0.02 %, Ti: ≤ 0.0100 %, N: ≤ 0.0100 %, O: ≤ 0.0100 %, B: ≤ 0.0100 % and, as the remainder, iron and unavoidable impurities, whereby the electric sheet steel or strip, over the course of a cooling starting from a temperature of at least 1150 DEG C, firstly has an austenitic structure and then a mixed structure consisting of austenite and ferrite, and finally it has a ferritic structure after reaching a temperature less than 1050 DEG C. The electric sheet steel or strip has, at a polarization of 1.5 T and a frequency of 50 Hz, a hysteresis loss P1.5 that is less than 4.7 W/kg, at a magnetic field strength of 2500 A/m, a magnetic polarization B25 equal to at least 1.60 T and, at a frequency of 50 Hz, a magnetic permeability μ 1.5 of at least 1500. The electric sheet steel or strip constituted in such a manner has, at the same time, low hysteresis losses and a good saturation magnetization, which is expressed in a higher permeability μ , and can be easily produced.

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