

Title (en)

NON-GRAIN ORIENTED ELECTRICAL STEEL STRIP OR ELECTRICAL STEEL SHEET AND METHOD FOR PRODUCING THE SAME

Title (de)

NICHTKORNORIENTIERTES ELEKTROBAND ODER -BLECH UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

TOLE OU FEUILLARD MAGNETIQUE A GRAINS NON ORIENTES ET PROCEDE POUR SA PRODUCTION

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Application

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Abstract (en)

[origin: WO03097884A1] The invention relates to non-grain oriented electrical steel sheets that can be produced as finally annealed or as not finally annealed sheets in such a manner that they have improved magnetic polarization values and reduced magnetic losses as compared to values so far obtained. For this purpose, when a steel having a suitable composition is cooled off, it is subjected to a temperature range, starting from an initial temperature of not more than 1300 DEG C and with the substantially complete exception of a purely austenitic microstructure (gamma phase). In said temperature range, the steel has a austenite/ferrite two-phase mixed structure (alpha and gamma mixed phases) so that the electrical steel sheet, after hot rolling, pickling, cold rolling and annealing of the hot-rolled strip obtained after hot rolling has a magnetic polarization J2500 \geq 1.74 T measured in the longitudinal orientation of the strip or sheet at a magnetic field strength of 2500 A/m and a value P1.5 (50) of the magnetic losses of < 4.5 W/kg measured in the longitudinal orientation of the strip at J = 1.5 T and at a frequency f = 50 Hz.

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