

Title (en)
GRAIN-ORIENTED ELECTRICAL STEEL STRIP AND METHOD FOR ITS PRODUCTION

Title (de)
KORNORIENTIERTES ELEKTROBAND UND VERFAHREN ZU DESSEN HERSTELLUNG

Title (fr)
BANDE D'ACIER ÉLECTRIQUE À GRAINS ORIENTÉS ET SON PROCÉDÉ DE FABRICATION

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Abstract (en)
The invention relates to a grain-oriented electrical steel sheet having a peak magnetic polarization of ≥ 1.3 T at an external field of 100 A/m and an excitation of 1000 Hz and comprising: a cold-rolled steel core layer consisting of Fe, Si and optionally further alloying elements, the steel core layer having two outer surfaces, a forsterite layer on at least one of the two outer surfaces of the cold-rolled steel core layer wherein the grain-oriented electrical steel sheet has a bending radius of 9 mm or less, determined using a taper mandrel bending device and bending a specimen of the grain oriented electrical steel continuously 180° around a taper mandrel with a taper base of 30 mm and a taper tip of 5 mm, the bending radius being the radius at which visible cracks appear in the grain-oriented electrical steel sheet. The invention further relates to a method of producing a grain-oriented electrical steel sheet of the invention, to laminated stacks of grain-oriented electrical steel sheets, wherein the stack comprises at least two grain-oriented electrical steel sheets according to the invention laminated together with a resin and to the use of the grain-oriented electrical steel sheet of the invention as material for the production of parts for electric motors, for electric transformers or for other electric devices.

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Citation (applicant)

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