

Title (en)

Process for preparation of grain-oriented electrical steel sheet having superior magnetic properties.

Title (de)

Verfahren zum Herstellen kornorientierter Elektrobleche mit verbesserten magnetischen Eigenschaften.

Title (fr)

Procédé pour produire de tôle d'acier électrique à grain orienté possédant des caractéristiques magnétiques améliorées.

Publication

EP 0392535 A2 19901017 (EN)

Application

EP 90107030 A 19900412

Priority

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Abstract (en)

A silicon steel slab comprising 0.05 to 0.8% by weight of Mn and up to 0.014% by weight of S + 0.405Se is heated at a temperature lower than 1280 DEG C and hot-rolled under such conditions that the hot rolling-finish temperature is 700 to 1150 DEG C, the cumulative reduction ratio at the final three passes is at least 40%, and the reduction ratio at the final pass is at least 20%, or this silicon steel slab is hot-rolled at a hot rolling-finish temperature of 750 to 1150 DEG C while adopting the above-mentioned reduction ratio according to need, is maintained at a temperature not lower than 700 DEG C for at least 1 second, and wound at a winding temperature lower than 700 DEG C. The hot-rolled sheet is subjected to the hot-rolled sheet annealing, finally cold-rolled at a reduction ratio of at least 80%, subjected to the decarburization annealing, and then subjected to the final finish annealing. According to this process, a grain-oriented electrical steel sheet having superior magnetic properties is obtained.

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