

Title (en)

Method for producing a grain-oriented electrical steel sheet having a mirror surface and improved core loss

Title (de)

Herstellungsverfahren eines kornorientiertes Elektrostahlbleches mit einer Spiegeloberfläche und mit geringen Eisenverlusten

Title (fr)

Procédé pour la fabrication d'une tôle d'acier électrique à grains orientés ayant une surface miroir et une faible perte dans le fer

Publication

**EP 0753588 A1 19970115 (EN)**


Application

**EP 95111069 A 19950714**

Priority

EP 95111069 A 19950714

Abstract (en)

Disclosed is a method for producing a grain-oriented electrical steel sheet having mirror surface containing 0.8 to 4.8% of Si in the form of a strip which has been subjected to a conventional series of operations including hot rolling with or without annealing, cold rolling once or at least twice with intermediate annealing to obtain a final thickness, decarburization annealing with or without nitriding treatment, coating the steel sheet with an annealing separator mainly containing non-hydrating oxide and final annealing, the improvement comprising: satisfying the relationship  $\frac{[O]}{[Si]} \leq 0.01$  where  $\frac{[O]}{[Si]}$  is the total concentration of alkali metal impurity in the annealing separator (weight %), and  $\frac{[O]}{[Si]}$  is the amount of oxygen contained in the steel sheet just prior to the final annealing (g/m<sup>2</sup>). 

IPC 1-7

**C21D 8/12**

IPC 8 full level

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CPC (source: EP)

**C21D 8/1283** (2013.01); **C22C 38/02** (2013.01)

Citation (search report)

- [A] EP 0305966 A1 19890308 - NIPPON STEEL CORP [JP]
- [A] EP 0607440 A1 19940727 - NIPPON STEEL CORP [JP]
- [AD] US 3785882 A 19740115 - JACKSON J
- [A] PATENT ABSTRACTS OF JAPAN vol. 18, no. 226 (C - 1194) 25 April 1994 (1994-04-25)
- [AD] PATENT ABSTRACTS OF JAPAN vol. 9, no. 166 (C - 290) 11 July 1985 (1985-07-11)

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