

Title (en)
METHOD FOR THE PRODUCTION OF ELECTRICAL SHEET WITH NON-ORIENTED GRAINS

Title (de)
VERFAHREN ZUR HERSTELLUNG VON NICHTKORNORIENTIERTEM ELEKTROBLECH

Title (fr)
PROCEDE POUR PRODUIRE UNE TOLE ELECTRIQUE A GRAINS NON ORIENTES

Publication
EP 1444372 B1 20050223 (DE)

Application
EP 02779558 A 20021114

Priority
• DE 10156059 A 20011116
• EP 0212754 W 20021114

Abstract (en)
[origin: WO03042416A1] The invention relates to a method for the production of cold-rolled magnetic sheet or strip, with non-oriented granularity and a final thickness of ≤ 0.75 mm, comprising the following working steps: smelting a steel with (in wt. %) C: ≤ 0.01 %, Mn: ≤ 1.5 %, Si: 0.1 - 4.5 %, Al: 0.001 - 2.0 %, P: ≤ 0.1 %, Sn: ≤ 0.15 %, Sb: ≤ 0.15 %, the remainder iron and unavoidable impurities, casting the steel to give thin slabs, a heat treatment of the cast thin slab or strip following on continuously after the casting, hot-rolling of the thin slab or strip following continuously after the heat treatment to give a hot strip with a final thickness of ≤ 1.8 mm, winding the hot strip, cold-rolling the hot strip to give a cold strip with a final thickness of ≤ 0.75 mm and a final heat treatment of the cold strip. Said invention combines the effects of the application of a continuous casting and rolling unit (in-line casting and rolling) with the effects of the reduction in complexity on cold-rolling by application of continuously cast hot-rolled strip made from FeSi steels with a thickness of ≤ 1.8 mm, preferably ≤ 1.2 mm.

IPC 1-7
C21D 8/12

IPC 8 full level
B21B 1/22 (2006.01); **B21B 3/00** (2006.01); **C21D 8/12** (2006.01); **C22C 38/00** (2006.01); **C22C 38/60** (2006.01); **H01F 1/147** (2006.01); **H01F 1/16** (2006.01)

CPC (source: EP KR)
C21D 8/12 (2013.01 - EP KR); **C21D 8/1211** (2013.01 - EP); **C21D 8/1233** (2013.01 - EP)

Cited by
CN113969371A; EP1838882A4

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)
WO 03042416 A1 20030522; AT E289631 T1 20050315; DE 10156059 A1 20030528; DE 50202344 D1 20050331; EP 1444372 A1 20040811; EP 1444372 B1 20050223; ES 2238617 T3 20050901; JP 2005509738 A 20050414; KR 20050044499 A 20050512

DOCDB simple family (application)
EP 0212754 W 20021114; AT 02779558 T 20021114; DE 10156059 A 20011116; DE 50202344 T 20021114; EP 02779558 A 20021114; ES 02779558 T 20021114; JP 2003544229 A 20021114; KR 20047007481 A 20040515