

Title (en)
METHOD FOR PRODUCING GRAIN ORIENTED ELECTRIC SHEETS AND USE OF A STEEL FOR ELECTRIC SHEETS

Title (de)
VERFAHREN ZUR HERSTELLUNG VON KORNIORIENTIERTEM ELEKTROBLECH UND VERWENDUNG EINES STAHL FÜR ELEKTROBLECH

Title (fr)
PROCEDE DE FABRICATION DE TOLES ELECTRIQUES A GRAINS ORIENTES ET UTILISATION D'UN ACIER POUR TOLES ELECTRIQUES

Publication
EP 0998587 A1 20000510 (DE)

Application
EP 98945171 A 19980806

Priority
• DE 19735062 A 19970813
• EP 9805008 W 19980806

Abstract (en)
[origin: WO9909221A1] The invention relates to a method for producing grain oriented electric sheets. In this method, a steel slab is first of all heated to a temperature below the solubility temperature of manganese sulphide but above the solubility temperature of copper sulphide, then heated through and finally hot-rolled at an initial temperature of at least 960 DEG C and a final temperature of 880-1000 DEG C, until a final thickness of the hot-rolled sheet of 1.5-7.0mm is obtained. The hot-rolled sheet is then annealed for 100-600s at a temperature of 880-1150 DEG C, cooled and cold-rolled. The cold-rolled band is annealed, during which decarbonization and recrystallization take place. After applying an MgO-containing separating agent, the cold-rolled band is annealed at high temperature, and, after applying an insulating coating, subjected to final annealing. The invention is characterized in that a steel slab with fine grain globulite structure is used, in which at least 90 % of the grains have a diameter of not more than 1/25 of the slab thickness, and an extension factor of at least 0.5.

IPC 1-7
C21D 8/12

IPC 8 full level
C21D 8/12 (2006.01); **C21D 3/04** (2006.01)

CPC (source: EP KR)
C21D 6/008 (2013.01 - KR); **C21D 8/1205** (2013.01 - EP); **C21D 8/1211** (2013.01 - KR); **C21D 8/1222** (2013.01 - EP KR); **C21D 8/1233** (2013.01 - KR); **C21D 8/1255** (2013.01 - KR); **C21D 8/1261** (2013.01 - KR); **C21D 8/1272** (2013.01 - KR); **C21D 8/1283** (2013.01 - KR); **C22C 38/02** (2013.01 - KR); **C21D 3/04** (2013.01 - EP); **C21D 8/1261** (2013.01 - EP)

Cited by
WO2009117959A1

Designated contracting state (EPC)
AT BE DE ES FI FR GB IT NL SE

DOCDB simple family (publication)
WO 9909221 A1 19990225; AT E199403 T1 20010315; BR 9811935 A 20000829; DE 19735062 A1 19990218; DE 59800501 D1 20010405; EP 0998587 A1 20000510; EP 0998587 B1 20010228; ES 2156033 T3 20010601; KR 20010022777 A 20010326

DOCDB simple family (application)
EP 9805008 W 19980806; AT 98945171 T 19980806; BR 9811935 A 19980806; DE 19735062 A 19970813; DE 59800501 T 19980806; EP 98945171 A 19980806; ES 98945171 T 19980806; KR 20007001377 A 20000210