

Title (en)

Magnetic hot rolled steel strip particularly suited for the production of electromagnetic lamination packs

Title (de)

Warmgewalztes magnetisches Stahlband zur Herstellung von gestapelten magnetischen Kernblechen

Title (fr)

Tole magnétique laminée à chaud pour la production de paquets de tole électromagnétiques

Publication

**EP 1662010 A1 20060531 (EN)**

Application

**EP 04425877 A 20041124**

Priority

EP 04425877 A 20041124

Abstract (en)

A hot rolled low carbon steel strip with a reduced content of silicon and thickness comprised between 0.65 and 1.5 mm can be used in a particularly advantageous way for the production of multilayer packs of cold cut lamination and all those products composed of a number of overlying steel sheets which are required to have a substantial parallelism, planarity and no burrs, providing a valid alternative solution to the cold rolled, non-oriented grain silicon steel strip which is usually employed to this purpose. Said steel strip is characterized by a silicon content < 0.03 %, a thickness preferably between about 0.65 and 1 mm, reduced tolerances of  $\pm 0.05$  mm, a parallelism rate < 0.02 mm and a fine and uniform grain structure with the 70% of the ferritic grains comprised between the grades 9 and 12 of the ASTM E 112 standard.

IPC 8 full level

**C21D 8/02** (2006.01); **C21D 8/12** (2006.01)

CPC (source: EP)

**C21D 8/1211** (2013.01); **C21D 8/1222** (2013.01); **C21D 8/1238** (2013.01); **C22C 38/04** (2013.01); **C21D 2211/005** (2013.01); **H01F 1/14791** (2013.01)

Citation (applicant)

- WO 2004013365 A1 20040212 - JFE STEEL CORP [JP], et al
- EP 1411138 A1 20040421 - JFE STEEL CORP [JP]
- WO 2004026497 A1 20040401 - ARVEDI GIOVANNI [IT]

Citation (search report)

- [A] EP 1170390 A1 20020109 - NIPPON KOKAN KK [JP]
- [AD] EP 1411138 A1 20040421 - JFE STEEL CORP [JP]
- [AD] WO 2004026497 A1 20040401 - ARVEDI GIOVANNI [IT]
- [X] PATENT ABSTRACTS OF JAPAN vol. 1999, no. 09 30 July 1999 (1999-07-30)
- [X] PATENT ABSTRACTS OF JAPAN vol. 2000, no. 13 5 February 2001 (2001-02-05)
- [A] PATENT ABSTRACTS OF JAPAN vol. 2000, no. 24 11 May 2001 (2001-05-11)
- [A] PATENT ABSTRACTS OF JAPAN vol. 2000, no. 20 10 July 2001 (2001-07-10)

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JP2016047943A; CN107962075A; CN103028599A; CN109097535A; US8137485B2; WO2013051042A1; WO2007086088A1; WO2009012963A1; WO2007086087A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LU MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

HR YU

DOCDB simple family (publication)

**EP 1662010 A1 20060531**; **EP 1662010 B1 20090107**; AT E420214 T1 20090115; DE 602004018942 D1 20090226; DK 1662010 T3 20090427; ES 2316949 T3 20090416; HR P20090096 T3 20090531; PL 1662010 T3 20090630; PT 1662010 E 20090303; RS 51272 B 20101231; SI 1662010 T1 20090430

DOCDB simple family (application)

**EP 04425877 A 20041124**; AT 04425877 T 20041124; DE 602004018942 T 20041124; DK 04425877 T 20041124; ES 04425877 T 20041124; HR P20090096 T 20090216; PL 04425877 T 20041124; PT 04425877 T 20041124; RS P20090056 A 20041124; SI 200431016 T 20041124