

Title (en)

HIGH-RIGIDITY HIGH-STRENGTH THIN STEEL SHEET AND METHOD FOR PRODUCING SAME

Title (de)

HOCHSTEIFES HOCHFESTES DÜNNES STAHLBLECH UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

FEUILLE MINCE D'ACIER A HAUTE RIGIDITE ET HAUTE RESISTANCE ET PROCEDE DE FABRICATION DE LADITE FEUILLE

Publication

**EP 1731626 A1 20061213 (EN)**

Application

**EP 05727349 A 20050331**

Priority

- JP 2005006288 W 20050331
- JP 2004106721 A 20040331
- JP 2004347025 A 20041130

Abstract (en)

There is provided a high-stiffness high-strength thin steel sheet having a tensile strength of not less than 590 MPa and a Young's modulus of not less than 225 GPa, which comprises C: 0.02-0.15%, Si: not more than 1.5%, Mn: 1.5-4.0%, P: not more than 0.05%, S: not more than 0.01%, Al: not more than 1.5%, N: not more than 0.01% and Nb: 0.02-0.40% as mass%, provided that C, N and Nb contents satisfy  $0.01 \leq C + (12/14) \times N - (12/92.9) \times Nb \leq 0.06$  and  $N \leq (14/92.9) \times (Nb - 0.01)$  and the remainder being substantially iron and inevitable impurities, and has a texture comprising a ferrite phase as a main phase and having a martensite phase at an area ratio of not less than 1%.

IPC 8 full level

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CPC (source: EP KR US)

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