

Title (en)
HIGH-STRENGTH STEEL PLATE AND METHOD FOR PRODUCING HIGH-STRENGTH STEEL PLATE

Title (de)
HOCHFESTE STAHLPLATTE UND VERFAHREN ZUR HERSTELLUNG VON HOCHFESTEM STAHLBLECH

Title (fr)
TÔLE D'ACIER À HAUTE RÉSISTANCE ET PROCÉDÉ DE PRODUCTION DE TÔLE D'ACIER À HAUTE RÉSISTANCE

Publication
EP 3109330 A4 20170322 (EN)

Application
EP 15751393 A 20150203

Priority

- JP 2014028030 A 20140218
- JP 2015000460 W 20150203

Abstract (en)
[origin: EP3109330A1] Provided are a high-strength steel sheet that has excellent chemical conversion treatability and corrosion resistance after electrodeposition coating even when the content of Si or Mn is high and a method for manufacturing the high-strength steel sheet. When a steel sheet containing, by mass%, 0.03% to 0.35% C, 0.01% to 0.50% Si, 3.6% to 8.0% Mn, 0.01% to 1.0% Al, 0.10% or less P, and 0.010% or less S, the remainder being Fe and inevitable impurities is continuously annealed, the steel sheet is heated at a heating rate of 7 °C/s or more in a temperature range corresponding to an annealing furnace inside temperature of 450°C to A°C (where 500 ≤ A ≤ 600), the maximum end-point temperature of the steel sheet in an annealing furnace is 600°C to 700°C, the transit time of the steel sheet in a temperature range corresponding to a steel sheet temperature of 600°C to 700°C is 30 seconds to 10 minutes, and the concentration of hydrogen in an atmosphere is 20% by volume or more in a heating step.

IPC 8 full level
C21D 9/46 (2006.01); **C21D 1/76** (2006.01); **C22C 38/00** (2006.01); **C22C 38/06** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP KR US)
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Citation (search report)

- [XA] WO 2014017010 A1 20140130 - JFE STEEL CORP [JP]
- [XA] WO 2013140729 A1 20130926 - JFE STEEL CORP [JP]
- [XA] JP 2013194271 A 20130930 - JFE STEEL CORP
- [A] JP 2010255110 A 20101111 - JFE STEEL CORP
- [A] EP 2623631 A1 20130807 - JFE STEEL CORP [JP]
- [A] JP 2013124382 A 20130624 - JFE STEEL CORP
- See references of WO 2015125422A1

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US11421296B2

Designated contracting state (EPC)
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