

## Title (en)

HIGH STRENGTH STEEL SHEET HAVING EXCELLENT BRITTLE CRACK RESISTANCE AND METHOD FOR MANUFACTURING SAME

## Title (de)

HOCHFESTES STAHLBLECH MIT HERVORRAGENDEM SPRÖDIGKEITSBRUCHWIDERSTAND UND HERSTELLUNGSVERFAHREN DAFÜR

## Title (fr)

TÔLE D'ACIER À HAUTE RÉSISTANCE PRÉSENTANT UNE EXCELLENTE RÉSISTANCE AUX FISSURES FRAGILES ET PROCÉDÉ DE FABRICATION DE CELLE-CI

## Publication

**EP 2520683 A4 20150311 (EN)**

## Application

**EP 10841181 A 20101222**

## Priority

- KR 20090131740 A 20091228
- KR 2010009222 W 20101222

## Abstract (en)

[origin: EP2520683A2] Provided is a steel plate having excellent resistance to brittle crack initiation in a parent material zone and a weld heat affected zone. More particularly, the present invention relates to a high-strength steel sheet having excellent resistance to brittle crack initiation which includes 0.02 wt% to 0.06 wt% of carbon (C), 0.1 wt% or less of silicon (Si), 1.5 wt% to 2.0 wt% of manganese (Mn), 0.012 wt% or less of phosphorous (P), 0.003 wt% or less of sulfur (S), 0.5 wt% to 1.5 wt% of nickel (Ni), 0.003 wt% to 0.015 wt% of aluminum (Al), 0.005 wt% to 0.02 wt% of titanium (Ti), 0.005 wt% to 0.015 wt% of niobium (Nb), 0.002 wt% to 0.006 wt% of nitrogen (N), and iron (Fe) as well as unavoidable impurities as a remainder, and has a value of C+0.5Si-0.1Ni+6Al+3Nb of 0.1% or less, and a method of manufacturing the high-strength steel sheet.

## IPC 8 full level

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## CPC (source: EP KR)

**B21B 3/02** (2013.01 - KR); **C21D 8/02** (2013.01 - KR); **C21D 8/0221** (2013.01 - EP); **C21D 8/0226** (2013.01 - EP); **C22C 38/001** (2013.01 - EP); **C22C 38/04** (2013.01 - EP KR); **C22C 38/06** (2013.01 - EP); **C22C 38/08** (2013.01 - EP); **C22C 38/12** (2013.01 - EP); **C22C 38/14** (2013.01 - EP); **C21D 9/50** (2013.01 - EP); **C21D 2201/05** (2013.01 - EP); **C21D 2211/002** (2013.01 - EP); **C21D 2211/005** (2013.01 - EP)

## Citation (search report)

- [A] EP 2128293 A1 20091202 - POSCO [KR]
- See references of WO 2011081349A2

## Cited by

JP2018504520A; JP2020509165A; JP2018503744A; JP2018504524A; CN103695807A; JP2018504523A; JPWO2017145651A1; CN113166888A; EP3889295A4; US10883159B2; US10822671B2; US11649518B2; WO2017145651A1

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