

Title (en)  
MATERIAL FOR COLD-ROLLED STAINLESS STEEL SHEET, AND PRODUCTION METHOD THEREFOR

Title (de)  
MATERIAL FÜR KALTGEWALZTES EDELSTAHLBLECH UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)  
MATÉRIAU POUR TÔLE D'ACIER INOXYDABLE HAUTE RÉSISTANCE LAMINÉE À FROID ET PROCÉDÉ DE PRODUCTION ASSOCIÉ

Publication  
**EP 3594372 A4 20200122 (EN)**

Application  
**EP 18792138 A 20180413**

Priority  

- JP 2017086010 A 20170425
- JP 2018039385 A 20180306
- JP 2018015579 W 20180413

Abstract (en)  
[origin: EP3594372A1] A raw material for a steel sheet, the raw material being suitable for manufacturing a cold-rolled ferritic stainless steel sheet having excellent corrosion resistance, formability, and ridging resistance, and a manufacturing method therefor are provided. A raw material for a cold-rolled stainless steel sheet has a chemical composition containing, in terms of mass%, C: 0.005 to 0.030%, Si: 0.05 to 1.00%, Mn: 0.05 to 1.00%, P: 0.040% or less, S: 0.030% or less, Al: 0.001 to 0.150%, Cr: 10.8 to 14.4%, Ni: 0.01 to 2.50%, and N: 0.005 to 0.060%, with the balance being Fe and incidental impurities, in which the raw material has a structure containing 10 to 90% of a martensite phase in terms of area ratio with the balance being a ferrite phase.

IPC 8 full level  
**C22C 38/00** (2006.01); **C21D 1/18** (2006.01); **C21D 6/00** (2006.01); **C21D 8/04** (2006.01); **C21D 9/46** (2006.01); **C21D 9/48** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/40** (2006.01); **C22C 38/42** (2006.01); **C22C 38/44** (2006.01); **C22C 38/46** (2006.01); **C22C 38/48** (2006.01); **C22C 38/50** (2006.01); **C22C 38/60** (2006.01)

CPC (source: EP KR US)  
**C21D 1/185** (2013.01 - EP); **C21D 6/004** (2013.01 - EP); **C21D 8/0226** (2013.01 - US); **C21D 8/0236** (2013.01 - US); **C21D 8/0273** (2013.01 - US); **C21D 8/0463** (2013.01 - EP); **C21D 9/46** (2013.01 - EP KR US); **C21D 9/48** (2013.01 - EP); **C22C 38/00** (2013.01 - EP); **C22C 38/001** (2013.01 - EP US); **C22C 38/002** (2013.01 - US); **C22C 38/004** (2013.01 - EP); **C22C 38/005** (2013.01 - EP US); **C22C 38/008** (2013.01 - US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/06** (2013.01 - EP); **C22C 38/08** (2013.01 - US); **C22C 38/10** (2013.01 - US); **C22C 38/12** (2013.01 - US); **C22C 38/14** (2013.01 - US); **C22C 38/16** (2013.01 - US); **C22C 38/40** (2013.01 - EP KR); **C22C 38/42** (2013.01 - EP); **C22C 38/44** (2013.01 - EP); **C22C 38/46** (2013.01 - EP); **C22C 38/48** (2013.01 - EP); **C22C 38/50** (2013.01 - EP); **C22C 38/60** (2013.01 - EP KR US); **C21D 2211/005** (2013.01 - EP US); **C21D 2211/008** (2013.01 - EP US)

Citation (search report)  

- [XA] CN 105331899 A 20160217 - BAOSTEEL STAINLESS STEEL CO
- [XA] US 2016289786 A1 20161006 - ISHII TOMOHIRO [JP], et al
- [XA] JP 2015086443 A 20150507 - JFE STEEL CORP
- [XA] JP 2015101763 A 20150604 - NIPPON STEEL & SUMITOMO METAL CORP
- [A] WO 2016035235 A1 20160310 - JFE STEEL CORP [JP]
- [A] JP 2013053366 A 20130321 - NIPPON STEEL & SUMIKIN SST
- [A] WO 2015099459 A1 20150702 - POSCO [KR]
- [A] JP 2006328525 A 20061207 - NIPPON STEEL & SUMIKIN SST
- [A] PECKNER D ET AL: "HANDBOOK OF STAINLESS STEELS, PASSAGE", HANDBOOK OF STAINLESS STEELS, XX, XX, 1 January 1977 (1977-01-01), pages 14.02, XP002053955
- [A] MATTHEWS L M ET AL: "Heat treatment of a low carbon 12% chromium steel", PROCEEDINGS / 5TH INTERNATIONAL CONGRESS ON HEAT TREATMENT OF MATERIALS : OCT. 20 - 24, 1986, BUDAPEST, GEPI. TUD. EGYESULET, BUDAPEST, HU, vol. 1, 20 October 1986 (1986-10-20), pages 77 - 84, XP009517746, ISBN: 978-963-444-004-8
- See references of WO 2018198835A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3594372 A1 20200115; EP 3594372 A4 20200122**; CN 110582589 A 20191217; JP 2018184661 A 20181122; JP 6489254 B2 20190327; KR 102288000 B1 20210809; KR 20190131527 A 20191126; TW 201843319 A 20181216; TW I653344 B 20190311; US 2020385834 A1 20201210

DOCDB simple family (application)  
**EP 18792138 A 20180413**; CN 201880027575 A 20180413; JP 2018039385 A 20180306; KR 20197030950 A 20180413; TW 107113710 A 20180423; US 201816607170 A 20180413