

Title (en)  
FERRITIC STAINLESS STEEL SHEET

Title (de)  
BLECH AUS EINEM FERRITISCHEN EDELSTAHL

Title (fr)  
TÔLE D'ACIER INOXYDABLE FERRITIQUE

Publication  
**EP 3438310 A4 20190206 (EN)**

Application  
**EP 17773922 A 20170224**

Priority  
• JP 2016065695 A 20160329  
• JP 2017006973 W 20170224

Abstract (en)  
[origin: EP3438310A1] Provided is a ferritic stainless steel sheet that has low susceptibility to exfoliation of black spots on a weld bead (in a TIG weld zone, in particular) during bending. The ferritic stainless steel includes, in mass%, C: 0.020% or less, Si: 0.05 to 0.50%, Mn: 0.05 to 0.50%, P: 0.040% or less, S: 0.030% or less, Al: 0.001 to 0.150%, Cr: 18.0 to 25.0%, Ti: 0.01 to 0.50%, Ca: 0.0001 to 0.0015%, O (oxygen): 0.0015 to 0.0040%, and N: 0.025% or less, with the balance being Fe and incidental impurities. The ferritic stainless steel sheet further satisfies formula (1), below:  $0.5 \leq \frac{PBI}{\#} \leq 20.0$  ... (1) (where  $PBI = (7Al + 2Ti + Si + 10Zr + 130Ca) \times O$  (oxygen)  $\times 1000$ , and Al, Ti, Si, Zr, Ca, and O (oxygen) in the formula each represent a content [mass%] of a corresponding element in the ferritic stainless steel sheet, and the content of an element not included in the ferritic stainless steel sheet is 0).

IPC 8 full level  
**C22C 38/00** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/20** (2006.01); **C22C 38/22** (2006.01); **C22C 38/24** (2006.01); **C22C 38/26** (2006.01); **C22C 38/28** (2006.01); **C22C 38/30** (2006.01); **C22C 38/32** (2006.01); **C22C 38/42** (2006.01); **C22C 38/46** (2006.01); **C22C 38/48** (2006.01); **C22C 38/50** (2006.01); **C22C 38/52** (2006.01); **C22C 38/54** (2006.01); **C22C 38/60** (2006.01)

CPC (source: EP KR US)  
**C21D 6/004** (2013.01 - EP US); **C21D 6/005** (2013.01 - EP US); **C21D 6/007** (2013.01 - EP US); **C21D 6/008** (2013.01 - EP US); **C21D 8/0205** (2013.01 - EP US); **C21D 8/0226** (2013.01 - EP US); **C21D 8/0236** (2013.01 - EP US); **C21D 8/0263** (2013.01 - EP US); **C21D 9/46** (2013.01 - EP US); **C22C 38/001** (2013.01 - EP KR US); **C22C 38/002** (2013.01 - EP US); **C22C 38/005** (2013.01 - EP KR US); **C22C 38/008** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP KR US); **C22C 38/04** (2013.01 - EP KR US); **C22C 38/06** (2013.01 - EP KR US); **C22C 38/20** (2013.01 - EP US); **C22C 38/22** (2013.01 - EP US); **C22C 38/24** (2013.01 - EP KR US); **C22C 38/26** (2013.01 - EP US); **C22C 38/28** (2013.01 - EP KR US); **C22C 38/30** (2013.01 - EP US); **C22C 38/32** (2013.01 - EP US); **C22C 38/42** (2013.01 - EP US); **C22C 38/44** (2013.01 - EP US); **C22C 38/46** (2013.01 - EP US); **C22C 38/48** (2013.01 - EP US); **C22C 38/50** (2013.01 - EP US); **C22C 38/52** (2013.01 - EP US); **C22C 38/54** (2013.01 - EP US); **C22C 38/60** (2013.01 - EP US); **C21D 2211/005** (2013.01 - EP KR US)

Citation (search report)  
• [X] WO 2016017053 A1 20160204 - JFE STEEL CORP [JP]  
• [XA] JP 2000144342 A 20000526 - SUMITOMO METAL IND  
• [XA] JP 2004169150 A 20040617 - JFE STEEL KK  
• [XA] WO 2014087648 A1 20140612 - JFE STEEL CORP [JP]  
• [X] WO 2010090041 A1 20100812 - NIPPON STEEL & SUMIKIN SST [JP], et al  
• [X] JP 2012036444 A 20120223 - NIPPON STEEL & SUMIKIN SST  
• [A] JP 2015124419 A 20150706 - JFE STEEL CORP  
• [A] JP H11323502 A 19991126 - SUMITOMO METAL IND  
• See references of WO 2017169377A1

Designated contracting state (EPC)  
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