

Title (en)  
HIGH-STRENGTH STEEL SHEET

Title (de)  
ULTRAHOCHFESTES STAHLBLECH

Title (fr)  
TÔLE EN ACIER HAUTEMENT RÉSISTANTE

Publication  
**EP 3998366 A4 20230607 (EN)**

Application  
**EP 20836399 A 20200708**

Priority  
• JP 2019128612 A 20190710  
• JP 2020026704 W 20200708

Abstract (en)  
[origin: EP3998366A1] A high strength steel sheet according to the present invention contains a predetermined chemical composition, a metallographic structure includes, by an area ratio, ferrite: 20% to 70%, residual austenite: 5% to 40%, fresh martensite: 0% to 30%, tempered martensite and bainite: 20% to 75% in total, and pearlite and cementite: 0% to 10% in total, in a range of a 1/8 thickness to a 3/8 thickness from a surface, a number proportion of residual austenite having an aspect ratio of 2.0 or more with respect to the number of all residual austenite is 50% or more, at a sheet thickness 1/4 position of a cross section parallel to a rolling direction and perpendicular to the surface, a standard deviation of area ratios of ferrite measured at 10 points every 50 mm along a width direction is less than 10%, and a tensile strength is 780 MPa or more.

IPC 8 full level

**C22C 38/00** (2006.01); **C21D 1/19** (2006.01); **C21D 1/26** (2006.01); **C21D 8/02** (2006.01); **C21D 9/46** (2006.01); **C22C 38/02** (2006.01);  
**C22C 38/04** (2006.01); **C22C 38/08** (2006.01); **C22C 38/10** (2006.01); **C22C 38/12** (2006.01); **C22C 38/34** (2006.01); **C22C 38/38** (2006.01);  
**C22C 38/58** (2006.01); **C21D 1/78** (2006.01)

CPC (source: CN EP KR US)

**C21D 1/19** (2013.01 - EP); **C21D 1/26** (2013.01 - CN EP); **C21D 6/001** (2013.01 - US); **C21D 6/002** (2013.01 - US); **C21D 6/005** (2013.01 - US);  
**C21D 6/007** (2013.01 - US); **C21D 6/008** (2013.01 - US); **C21D 8/0205** (2013.01 - CN EP US); **C21D 8/0226** (2013.01 - CN EP US);  
**C21D 8/0247** (2013.01 - CN); **C21D 8/0263** (2013.01 - EP); **C21D 8/0273** (2013.01 - EP); **C21D 8/0278** (2013.01 - EP);  
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**C22C 38/16** (2013.01 - US); **C22C 38/34** (2013.01 - CN EP); **C22C 38/38** (2013.01 - EP US); **C22C 38/42** (2013.01 - CN KR);  
**C22C 38/44** (2013.01 - CN KR); **C22C 38/46** (2013.01 - CN); **C22C 38/48** (2013.01 - CN KR); **C22C 38/50** (2013.01 - CN KR);  
**C22C 38/52** (2013.01 - CN); **C22C 38/54** (2013.01 - CN); **C22C 38/58** (2013.01 - CN KR); **C21D 1/78** (2013.01 - EP); **C21D 8/0242** (2013.01 - EP);  
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**C21D 2211/008** (2013.01 - CN EP US)

Citation (search report)

- [I] WO 2019009675 A1 20190110 - POSCO [KR]
- [A] JP 2009209384 A 20090917 - JFE STEEL CORP
- [A] JP H09241739 A 19970916 - NIPPON STEEL CORP
- See also references of WO 2021006296A1

Designated contracting state (EPC)

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JP WO2021006296 A1 20211216; KR 102649505 B1 20240321; KR 20210134967 A 20211111; MX 2021012787 A 20211210;  
US 2022177995 A1 20220609; WO 2021006296 A1 20210114

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