

Title (en)
HIGH-STRENGTH STEEL SHEET

Title (de)
ULTRAHOCHFESTES STAHLBLECH

Title (fr)
TÔLE EN ACIER HAUTEMENT RÉSISTANTE

Publication
EP 3998366 A1 20220518 (EN)

Application
EP 20836399 A 20200708

Priority

- JP 2019128612 A 20190710
- JP 2020026704 W 20200708

Abstract (en)

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 9/46** (2006.01); **C22C 38/58** (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); **C21D 9/46** (2013.01 - EP KR US); **C22C 38/001** (2013.01 - KR US); **C22C 38/002** (2013.01 - CN EP US); **C22C 38/005** (2013.01 - CN EP US); **C22C 38/02** (2013.01 - CN EP US); **C22C 38/04** (2013.01 - CN EP); **C22C 38/06** (2013.01 - CN KR US); **C22C 38/08** (2013.01 - EP); **C22C 38/10** (2013.01 - EP); **C22C 38/105** (2013.01 - US); **C22C 38/12** (2013.01 - EP US); **C22C 38/14** (2013.01 - US); **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); **C21D 2211/001** (2013.01 - CN EP US); **C21D 2211/002** (2013.01 - CN EP US); **C21D 2211/005** (2013.01 - CN EP KR US); **C21D 2211/008** (2013.01 - CN EP US)

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 3998366 A1 20220518; **EP 3998366 A4 20230607**; CN 113748223 A 20211203; CN 113748223 B 20221216; JP 7168087 B2 20221109; JP WO2021006296 A1 20211216; KR 102649505 B1 20240321; KR 20210134967 A 20211111; MX 2021012787 A 20211210; US 2022177995 A1 20220609; WO 2021006296 A1 20210114

DOCDB simple family (application)
EP 20836399 A 20200708; CN 202080028251 A 20200708; JP 2020026704 W 20200708; JP 2021530716 A 20200708; KR 20217032057 A 20200708; MX 2021012787 A 20200708; US 202017601799 A 20200708