

Title (de)

HOCHFESTES KALTGEWALTES STAHLBLECH MIT HERVORRAGENDER VERFORMBARKEITS- UND BESCHICHTUNGSEIGENSCHAFT, AUS DIESEM BLECH HERGESTELLTES AUF BASIS VON ZINK PLATTIERTES STAHLBLECH UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

TOLE D'ACIER LAMINEE A FROID DE HAUTE RESISTANCE POSSEDANT UNE EXCELLENTE PROPRIETE DE FORMABILITE ET DE REVETEMENT, TOLE D'ACIER PLAQUEE DE METAL A BASE DE ZINC FABRIQUEE A PARTIR DE CETTE TOLE ET PROCEDE DE FABRICATION DE CELLE-CI

Publication

EP 1960562 A4 20120125 (EN)

Application

EP 06824061 A 20061208

Priority

- KR 2006005355 W 20061208
- KR 20050120407 A 20051209
- KR 20050128666 A 20051223

Abstract (en)

[origin: WO2007067014A8] Provided is a high-strength cold rolled steel sheet and a high-strength zinc-coated steel sheet, which are primarily used as a structural member and a reinforcement of the car body, and has excellent formability and coating properties; and methods for manufacturing the same. The steel sheet comprises 0.01-0.2 wt% of carbon (C), 0.01-2.0 wt% of silicon (Si), 0.5-4.0 wt% of manganese (Mn), less than 0.1 wt% of phosphorous (P), less than 0.03 wt% of sulfur (S), less than 1.0 wt% of soluble aluminum (Sol. Al), 0.001-0.1 wt% of nitrogen (N), 0.005-1.0 wt% of antimony (Sb), and the balance of iron (Fe) with inevitable impurities. Provided is also a zinc- coated steel sheet and preparation thereof using the same steel sheet. According to the present invention, excellent coating properties and high tensile strength of more than 490 MPa can be achieved. In addition, the formability of TS * El balance having 15,000 MPaD % or higher can be secured. Further, excellent bake hardenability of a BH value having 80 MPa or higher can be obtained.

IPC 8 full level

C21D 8/02 (2006.01); **C22C 38/00** (2006.01)

CPC (source: EP)

C21D 8/0226 (2013.01); **C22C 38/001** (2013.01); **C22C 38/02** (2013.01); **C22C 38/06** (2013.01); **C22C 38/38** (2013.01); **C22C 38/44** (2013.01); **C22C 38/48** (2013.01); **C22C 38/60** (2013.01); **C21D 2211/005** (2013.01); **C21D 2211/008** (2013.01)

Citation (search report)

- [E] WO 2007040317 A1 20070412 - POSCO [KR], et al
- [XA] EP 1354970 A1 20031022 - NIPPON STEEL CORP [JP]
- [A] EP 1568791 A1 20050831 - JFE STEEL CORP [JP]
- [E] WO 2007024114 A1 20070301 - POSCO [KR], et al
- [AP] EP 1616971 A1 20060118 - JFE STEEL CORP [JP]
- See references of WO 2007067014A1

Cited by

US10968498B2; EP3231887A4; US2020340086A1; US11591676B2; EP3730636A4; US10344361B2; US11519051B2; US11827950B2

Designated contracting state (EPC)

DE FR SK

DOCDB simple family (publication)

WO 2007067014 A1 20070614; WO 2007067014 A8 20140313; CN 104264075 A 20150107; CN 104264075 B 20180130;
EP 1960562 A1 20080827; EP 1960562 A4 20120125; EP 1960562 B1 20150826; JP 2009518541 A 20090507; JP 5042232 B2 20121003

DOCDB simple family (application)

KR 2006005355 W 20061208; CN 201410446759 A 20061208; EP 06824061 A 20061208; JP 2008544264 A 20061208