

Title (en)

A steel composition for the production of cold rolled multiphase steel products

Title (de)

Stahlzusammensetzung zur Herstellung von mehrphasigen kaltgewalzten Stahlprodukten

Title (fr)

Composition d'acier pour la production de produits laminés à froid en acier à plusieurs phases

Publication

EP 1431406 A1 20040623 (EN)

Application

EP 02447265 A 20021220

Priority

EP 02447265 A 20021220

Abstract (en)

The present invention is related to a steel composition intended to be used in a process comprising a cold rolling step, for the production of uncoated, electro-galvanised or hot dip galvanised TRIP steel products, said composition being characterised by a specific addition of phosphorus. The latter is added in order to reach the desired mechanical properties (high tensile strength in combination with high elongation) while keeping a good weldability by sufficiently reducing the carbon content. The invention is further related to a process for producing a steel product, and to said steel product obtained, said product having the composition of the invention.

IPC 1-7

C22C 38/00; **C21D 8/00**

IPC 8 full level

C21D 8/00 (2006.01); **C21D 8/02** (2006.01); **C22C 38/00** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C23C 2/02** (2006.01); **C23C 2/40** (2006.01)

CPC (source: EP KR US)

C21D 8/0226 (2013.01 - EP KR US); **C21D 8/0236** (2013.01 - EP KR US); **C21D 8/0278** (2013.01 - EP KR US); **C21D 8/04** (2013.01 - EP KR US); **C22C 38/001** (2013.01 - KR); **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 38/12** (2013.01 - KR); **C22C 38/14** (2013.01 - KR); **C23C 2/022** (2022.08 - EP US); **C23C 2/0224** (2022.08 - EP KR US); **C23C 2/024** (2022.08 - EP KR US); **C23C 2/40** (2013.01 - EP KR US); **C21D 8/0273** (2013.01 - EP US); **C21D 2211/002** (2013.01 - EP KR US); **C21D 2211/005** (2013.01 - EP KR US)

Citation (search report)

- [Y] EP 1154028 A1 20011114 - CORUS STAAL BV [NL]
- [A] EP 0707087 A1 19960417 - NIPPON STEEL CORP [JP]
- [XY] PATENT ABSTRACTS OF JAPAN vol. 2000, no. 02 29 February 2000 (2000-02-29)
- [A] PATENT ABSTRACTS OF JAPAN vol. 1998, no. 13 30 November 1998 (1998-11-30)
- [A] PATENT ABSTRACTS OF JAPAN vol. 2000, no. 09 13 October 2000 (2000-10-13)
- [A] PATENT ABSTRACTS OF JAPAN vol. 2000, no. 02 29 February 2000 (2000-02-29)
- [A] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 02 29 February 1996 (1996-02-29)

Cited by

DE102006001628A1; EP3421634A1; EP1642990A4; CN115181899A; EP2439290A1; EP2098600A1; US7919194B2; US9970088B2; WO2008102009A1; US10577682B2; US7922835B2; US8262818B2; WO2016005061A1; WO2012045595A1; WO2012168564A1; WO2012168567A1; EP3390040B1; EP3390040B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SI SK TR

DOCDB simple family (publication)

EP 1431406 A1 20040623; AU 2003283135 A1 20040714; BR 0316905 A 20051018; CA 2507378 A1 20040708; CN 100537813 C 20090909; CN 1729307 A 20060201; EP 1579020 A1 20050928; EP 2264207 A1 20101222; JP 2006510802 A 20060330; JP 2011231406 A 20111117; JP 4856876 B2 20120118; KR 20050094408 A 20050927; KR 20110127283 A 20111124; MX PA05006801 A 20060217; RU 2005123361 A 20060120; RU 2328545 C2 20080710; US 2006140814 A1 20060629; US 2012018058 A1 20120126; WO 2004057048 A1 20040708

DOCDB simple family (application)

EP 02447265 A 20021220; AU 2003283135 A 20031106; BE 0300188 W 20031106; BR 0316905 A 20031106; CA 2507378 A 20031106; CN 200380106957 A 20031106; EP 03775002 A 20031106; EP 10180139 A 20031106; JP 2004560925 A 20031106; JP 2011125041 A 20110603; KR 20057011585 A 20050620; KR 20117024664 A 20031106; MX PA05006801 A 20031106; RU 2005123361 A 20031106; US 201113243295 A 20110923; US 53975805 A 20051223