

Title (en)

METHOD FOR PRODUCING HIGH-STRENGTH STEEL PRODUCT AND STEEL PRODUCT

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES HOCHFESTEN STAHLPRODUKTS UND STAHLPRODUKT

Title (fr)

PROCÉDÉ DE PRODUCTION DE PRODUIT EN ACIER À HAUTE RÉSISTANCE ET PRODUIT EN ACIER

Publication

EP 2491157 A4 20140820 (EN)

Application

EP 10824525 A 20101022

Priority

- FI 20090387 A 20091023
- FI 2010050831 W 20101022

Abstract (en)

[origin: WO2011048274A1] The object of the invention is a method for producing a high- strength galvanized steel product, the composition of which in percentages by weight comprises C: 0.04-0.10% Si: =0.03% Mn: 0.3-1.2% Nb: 0.015-0.10% N: =0.01% P: =0.02% S: =0.02% Al: 0.01-0.08% V: =0.08%, the remaining being iron, unavoidable impurities or residual contents. The object of the invention is also a high-strength product with the above mentioned composition. In accordance with the invention it has surprisingly been established that by direct quenching of steel with the mentioned composition there is obtained a high-strength steel with excellent hot-dip galvanization properties.

IPC 8 full level

C22C 38/04 (2006.01); **B21C 37/08** (2006.01); **C21D 8/02** (2006.01); **C21D 9/52** (2006.01)

CPC (source: EP FI)

C21D 6/005 (2013.01 - EP); **C21D 8/02** (2013.01 - FI); **C21D 8/0205** (2013.01 - EP); **C21D 9/52** (2013.01 - EP FI); **C22C 38/001** (2013.01 - EP); **C22C 38/04** (2013.01 - EP FI); **C22C 38/06** (2013.01 - EP); **C22C 38/12** (2013.01 - EP FI); **C22C 38/14** (2013.01 - FI); **C22C 38/42** (2013.01 - EP); **C22C 38/44** (2013.01 - EP); **C22C 38/46** (2013.01 - EP); **C22C 38/48** (2013.01 - EP); **C22C 38/50** (2013.01 - EP)

Citation (search report)

- [X] EP 1041167 A1 20001004 - KAWASAKI STEEL CO [JP]
- [A] WO 9905335 A1 19990204 - EXXON PRODUCTION RESEARCH CO [US], et al
- [A] EP 1319725 A2 20030618 - THYSSENKRUPP STAHL AG [DE]
- [A] EP 1375694 A1 20040102 - RAUTARUUKKI OYJ [FI]
- [A] US 2004040633 A1 20040304 - HANSCH ING WILFRIED [DE], et al
- See references of WO 2011048274A1

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

DOCDB simple family (publication)

WO 2011048274 A1 20110428; EP 2491157 A1 20120829; EP 2491157 A4 20140820; FI 122143 B 20110915; FI 20090387 A0 20091023; FI 20090387 A 20110424

DOCDB simple family (application)

FI 2010050831 W 20101022; EP 10824525 A 20101022; FI 20090387 A 20091023