

Title (en)

ULTRA HIGH-STRENGTH STRUCTURAL STEEL AND METHOD FOR PRODUCING ULTRA HIGH-STRENGTH STRUCTURAL STEEL

Title (de)

ULTRAHOCHFESTER BAUSTAHL UND VERFAHREN ZUR HERSTELLUNG DES ULTRAHOCHFESTEN BAUSTAHLS

Title (fr)

ACIER STRUCTUREL À ULTRA-HAUTE RÉSISTANCE ET PROCÉDÉ DE PRODUCTION D'UN ACIER STRUCTUREL À ULTRA-HAUTE RÉSISTANCE

Publication

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Application

**EP 11815448 A 20111201**

Priority

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- FI 2011051066 W 20111201

Abstract (en)

[origin: WO2012072884A1] The invention relates to an ultra high- strength structural steel, which is produced by hot- rolling as a sheet-like steel product. The invention relates to the production of a direct quenched and ultra high-strength structural steel, whose composition, as percentages by weight, comprises C: 0.07 - 0.12 %, Si: 0.1- 0.7 %, Mn: 0.5 - 2.0 %, Ni : 0.8 - 4.5 %, Cu: 0.25 - 3.0 %, Cr: 0.5 - 1.6 %, Mo: < 0.8 %, and Ti: ? 0.04 % as well as iron, unavoidable impurities and residual contents. The invention also relates especially to an ultra high-strength structural steel, whose composition comprises above said elements, wherein, in addition to high strength, the structural steel is also excellently weldable and possesses excellent impact toughness properties.

IPC 8 full level

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CPC (source: EP FI)

**C21D 1/18** (2013.01 - EP); **C21D 6/005** (2013.01 - FI); **C21D 8/0226** (2013.01 - EP FI); **C22C 38/42** (2013.01 - EP FI); **C22C 38/44** (2013.01 - EP); **C22C 38/50** (2013.01 - EP FI); **C21D 2211/008** (2013.01 - EP)

Citation (examination)

SPIEKERMANN P: "Legierungen - ein besonderes patentrechtliches Problem?", MITTEILUNGEN DER DEUTSCHEN PATENTANWAELTE, HEYMANN, KOLN, DE, vol. 34, 1 January 1993 (1993-01-01), pages 178 - 190, XP002152326, ISSN: 0026-6884

Cited by

WO2019124776A1; KR20190076765A

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DOCDB simple family (publication)

**WO 2012072884 A1 20120607**; **WO 2012072884 A9 20140828**; CN 103348020 A 20131009; CN 103348020 B 20161109; EP 2646582 A1 20131009; EP 2646582 B1 20191030; ES 2761839 T3 20200521; FI 20106275 A0 20101202; FI 20106275 A 20120603; RU 2013129002 A 20150110; RU 2586953 C2 20160610

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