

Title (en)

Hot-rolled steel surface product produced from a complex phase steel and method for the manufacture

Title (de)

Aus einem Komplexphasenstahl hergestelltes warmgewalztes Stahlflachprodukt und Verfahren zu dessen Herstellung

Title (fr)

Produit plat en acier laminé à chaud fabriqué à partir d'un acier à phase complexe et son procédé de fabrication

Publication

EP 2489748 B1 20171213 (DE)

Application

EP 11154973 A 20110218

Priority

EP 11154973 A 20110218

Abstract (en)

[origin: EP2489748A1] The hot rolled flat steel product comprises a complex-phase steel, iron, inevitable impurities including carbon (0.17 wt.%), manganese (2.05-2.2 wt.%), silicon (0.95 wt.%), aluminum (0.02-0.05 wt.%), phosphorus (up to 0.1 wt.%), sulfur (up to 0.01 wt.%), chromium (0.30-0.40 wt.%), optionally molybdenum, titanium (0.11-0.13 wt.%) and boron (0.001-0.002 wt.%), where the sum of chromium and molybdenum is 0.25-0.7 wt.%, and a structure having 10 vol.% of austenite, 10-60 vol.% of martensite, less than 30 vol.% of ferrite and 10 vol.% of bainite. An independent claim is included for a method of producing a hot-rolled flat steel product.

IPC 8 full level

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CPC (source: EP KR US)

C21D 8/02 (2013.01 - KR); **C21D 8/0226** (2013.01 - EP US); **C21D 8/0268** (2013.01 - EP US); **C22C 38/001** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP KR US); **C22C 38/04** (2013.01 - KR); **C22C 38/06** (2013.01 - EP US); **C22C 38/22** (2013.01 - EP US); **C22C 38/28** (2013.01 - EP US); **C22C 38/32** (2013.01 - EP US); **C22C 38/38** (2013.01 - EP KR US); **C21D 2211/002** (2013.01 - EP US); **C21D 2211/008** (2013.01 - EP US)

Citation (examination)

- US 2009277547 A1 20091112 - SAITO KENJI [JP], et al
- PYSHMINTSEV I Y ET AL: "Microstructure and properties of hot-rolled high strength multiphase steels for automotive application", STEEL RESEARCH, DUESSELDORF, DE, vol. 73, no. 9, 1 September 2002 (2002-09-01), pages 392 - 402, XP008139730, ISSN: 0177-4832

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CN110760756A; WO2020111639A1

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DOCDB simple family (publication)

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