

Title (en)
Flat product made of a metallic substance, in particular a steel substance, use of such a flat product and roller and method for manufacturing such a flat product

Title (de)
Flachprodukt aus einem Metallwerkstoff, insbesondere einem Stahlwerkstoff, Verwendung eines solchen Flachprodukts sowie Walze und Verfahren zur Herstellung solcher Flachprodukte

Title (fr)
Produit plat en métal, en particulier en acier, utilisation d'un tel produit plat tout comme presse et procédé de fabrication de tels produits plats

Publication
EP 2006037 B1 20100811 (DE)

Application
EP 07110866 A 20070622

Priority
EP 07110866 A 20070622

Abstract (en)
[origin: EP2006037A1] The flat product is made from metal, particularly steel. The frequency distribution of the high values has two distinctive maxima, which stands for distinctive highest and lowest levels of the surface. The frequency of the highest point is larger than the frequency of the lowest point. The distance between the main maxima of the frequency distribution of the high values is amount from 1 micro meter to 5 micro meters. The 99.99 percent of the topography measuring points has a minimum distance from edge of the lowest point and the highest point. Independent claims are also included for the following: (1) roller for manufacturing flat product (2) a method for manufacturing a flat product.

IPC 8 full level
B21B 1/22 (2006.01); **B21B 27/00** (2006.01)

CPC (source: EP KR US)
B21B 1/22 (2013.01 - KR); **B21B 1/227** (2013.01 - EP US); **B21B 27/00** (2013.01 - KR); **B21B 27/005** (2013.01 - EP US); **B21B 2261/14** (2013.01 - EP US); **B21B 2267/10** (2013.01 - EP US); **Y10T 428/12201** (2015.01 - EP US); **Y10T 428/12569** (2015.01 - EP US); **Y10T 428/12799** (2015.01 - EP US); **Y10T 428/12972** (2015.01 - EP US); **Y10T 428/12993** (2015.01 - EP US); **Y10T 428/24355** (2015.01 - EP US)

Cited by
DE102014110285A1; DE102014110285A9; DE102012017703A1; WO2023232547A1; DE102009025334B4; WO2021052809A1; WO2021052812A1; WO2023241967A1; WO2023241966A1; DE102022122773A1; WO2024052448A1; DE102022122771A1; WO2024052446A1; DE102020200321A1; WO2021144192A1; DE102022122772A1; WO2024052447A1; WO2021004872A1; US11905579B1; DE102022123741A1; WO2024056591A1; DE102021129934A1; WO2023088783A1; DE102022122775A1; DE102022123742A1; WO2024052449A1; WO2024056742A1; EP4357472A1; DE102022127491A1; DE102021125889A1; WO2023057300A1; US10252305B2; US10683560B2; DE102021121303A1; WO2023020875A1; DE102022113809A1; WO2021063751A1; DE102020200326A1; WO2021144164A1; EP4035788A1; DE102021200744A1; EP3416760B1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 2006037 A1 20081224; EP 2006037 B1 20100811; EP 2006037 B2 20230614; AT E477065 T1 20100815; CA 2687869 A1 20081231; CA 2687869 C 20120717; CN 101707928 A 20100512; CN 101707928 B 20120530; DE 502007004723 D1 20100923; ES 2348815 T3 20101215; KR 101223214 B1 20130117; KR 20100020474 A 20100222; SI 2006037 T1 20101231; US 2011165430 A1 20110707; US 8920938 B2 20141230; WO 2009000771 A1 20081231

DOCDB simple family (application)
EP 07110866 A 20070622; AT 07110866 T 20070622; CA 2687869 A 20080620; CN 200880021379 A 20080620; DE 502007004723 T 20070622; EP 2008057873 W 20080620; ES 07110866 T 20070622; KR 20097025989 A 20080620; SI 200730398 T 20070622; US 66380908 A 20080620