

Title (en)
HOT-ROLLED WEATHER RESISTANT STEEL PRODUCT AND METHOD OF MANUFACTURING THE SAME

Title (de)
WARMGEWALZTES WETTERFESTES STAHLPRODUKT UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)
PRODUIT D'ACIER LAMINÉ À CHAUD RÉSISTANT AUX INTEMPÉRIES ET SON PROCÉDÉ DE FABRICATION

Publication
EP 4116445 A1 20230111 (EN)

Application
EP 22183442 A 20220706

Priority
EP 21184520 A 20210708

Abstract (en)
This invention relates to a hot-rolled weather resistant steel product comprising a composition consisting of, in terms of weight percentages (wt. %): C 0.015 - 0.045, Si 0.15 - 0.75, Mn 0.8 - 1.6, Al 0.005 - 0.12, Nb 0.0 - 0.08, Cu 0.2 - 1.0, Cr 0.35 - 1.0, Ni 0.01 - 1.0, Ti 0.0 - 0.12, Mo > 0.05 - 0.35, V 0.0 - 0.14, B < 0.0006, P ≤ 0.035, S ≤ 0.025, W optionally < 0.1 %, Co optionally < 0.1 %, N < 0.0200 %, H < 0.0004 %, O < 0.0100 %, Ca < 0.01 %, REM < 0.1 %, and remainder Fe and inevitable impurities. Said steel product has a microstructure comprising a matrix consisting of, in terms of volume percentages (vol. %), measured at ¼ thickness: Polygonal ferrite (PF): 0 ≤ PF ≤ 10, Quasipolygonal ferrite (QPF): 5 ≤ QPF ≤ 36, Granular bainite (GB): 20 ≤ GB ≤ 70, Lath bainite (LB): 16 ≤ LB ≤ 80, Retained austenite (RA): RA ≤ 2, Martensite/austenite constituents (MA): MA ≤ 5, Pearlite (P): P ≤ 5, and GB+LB > 50 %, and

IPC 8 full level
C21D 1/19 (2006.01); **C21D 1/25** (2006.01); **C21D 1/26** (2006.01); **C21D 8/02** (2006.01); **C21D 9/46** (2006.01); **C22C 38/00** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/42** (2006.01); **C22C 38/44** (2006.01); **C22C 38/46** (2006.01); **C22C 38/48** (2006.01); **C22C 38/50** (2006.01); **C22C 38/54** (2006.01)

CPC (source: EP)
C21D 1/19 (2013.01); **C21D 1/25** (2013.01); **C21D 1/26** (2013.01); **C21D 8/0226** (2013.01); **C21D 8/0263** (2013.01); **C21D 9/46** (2013.01); **C22C 38/001** (2013.01); **C22C 38/002** (2013.01); **C22C 38/02** (2013.01); **C22C 38/04** (2013.01); **C22C 38/06** (2013.01); **C22C 38/42** (2013.01); **C22C 38/44** (2013.01); **C22C 38/46** (2013.01); **C22C 38/48** (2013.01); **C22C 38/50** (2013.01); **C22C 38/54** (2013.01); **C21D 2211/001** (2013.01); **C21D 2211/002** (2013.01); **C21D 2211/005** (2013.01); **C21D 2211/008** (2013.01); **C21D 2211/009** (2013.01)

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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

Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4116445 A1 20230111

DOCDB simple family (application)
EP 22183442 A 20220706