

Title (en)
HIGH STRENGTH COLD ROLLED AND GALVANNEALED STEEL SHEET AND MANUFACTURING PROCESS THEREOF

Title (de)
HOCHFESTES KALTGEWALZTES UND VERZINKTES STAHLBLECH UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)
TÔLE D'ACIER LAMINÉE À FROID À RÉSISTANCE ÉLEVÉE ET RECUITE APRÈS GALVANISATION ET SON PROCÉDÉ DE FABRICATION

Publication
EP 4114994 B1 20240327 (EN)

Application
EP 21703775 A 20210208

Priority

- IB 2020051750 W 20200302
- IB 2021050994 W 20210208

Abstract (en)
[origin: WO2021176249A1] The invention deals with a cold rolled and galvanized steel sheet having a composition comprising, by weight percent: C 0.15-0.25%, Mn 2.4-3.5%, Si 0.30-0.90%, Cr 0.30-0.70%, Mo 0.05-0.35%, Al 0.001-0.09%, Ti 0.01-0.06, B 0.0010-0.0040%, Nb 0.01 -0.05%, P≤0.020%, S≤0.010% and N≤0.008%, the remainder of the composition being iron and unavoidable impurities resulting from the smelting, and having a microstructure consisting of, in surface fraction, between 80% and 90% of martensite, the balance being ferrite and bainite.

IPC 8 full level
C21D 8/02 (2006.01); **C21D 9/46** (2006.01); **C22C 38/02** (2006.01); **C22C 38/22** (2006.01); **C22C 38/26** (2006.01); **C22C 38/28** (2006.01); **C22C 38/32** (2006.01); **C22C 38/38** (2006.01)

CPC (source: EP KR US)
C21D 8/0205 (2013.01 - EP US); **C21D 8/0226** (2013.01 - EP KR US); **C21D 8/0236** (2013.01 - EP KR US); **C21D 8/0273** (2013.01 - EP KR US); **C21D 8/0278** (2013.01 - US); **C21D 9/46** (2013.01 - EP US); **C22C 38/001** (2013.01 - KR); **C22C 38/02** (2013.01 - EP US); **C22C 38/06** (2013.01 - KR US); **C22C 38/22** (2013.01 - EP KR US); **C22C 38/26** (2013.01 - EP US); **C22C 38/28** (2013.01 - EP KR US); **C22C 38/32** (2013.01 - EP KR US); **C22C 38/38** (2013.01 - EP KR US); **C23C 2/06** (2013.01 - KR); **C23G 1/08** (2013.01 - KR); **C21D 2211/002** (2013.01 - EP KR US); **C21D 2211/005** (2013.01 - EP KR US); **C21D 2211/008** (2013.01 - EP KR US)

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 validation state (EPC)
MA

DOCDB simple family (publication)
WO 2021176249 A1 20210910; BR 112022014638 A2 20220913; CA 3167692 A1 20210910; CN 115066507 A 20220916; CN 115066507 B 20231222; EP 4114994 A1 20230111; EP 4114994 B1 20240327; FI 4114994 T3 20240426; JP 2023508240 A 20230301; JP 7488351 B2 20240521; KR 20220128659 A 20220921; MX 2022010798 A 20220927; US 2023141248 A1 20230511; WO 2021176285 A1 20210910; ZA 202207671 B 20230426

DOCDB simple family (application)
IB 2020051750 W 20200302; BR 112022014638 A 20210208; CA 3167692 A 20210208; CN 202180013081 A 20210208; EP 21703775 A 20210208; FI 21703775 T 20210208; IB 2021050994 W 20210208; JP 2022552553 A 20210208; KR 20227028588 A 20210208; MX 2022010798 A 20210208; US 202117907836 A 20210208; ZA 202207671 A 20220711