

Title (en)

STEEL PLATE COMPRISING ZINC-ALUMINUM-MAGNESIUM COATING AND MANUFACTURING METHOD THEREFOR

Title (de)

STAHLPLATTE, DIE EINE ZINK-ALUMINIUM-MAGNESIUM-BESCHICHTUNG UMFASST, UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

TÔLE D'ACIER COMPRENANT UN REVÊTEMENT DE ZINC-ALUMINIUM-MAGNÉSIUM ET SON PROCÉDÉ DE FABRICATION

Publication

EP 4079920 A4 20221221 (EN)

Application

EP 19956261 A 20191231

Priority

- CN 201911346137 A 20191219
- CN 2019130630 W 20191231

Abstract (en)

[origin: EP4079920A1] A steel plate comprising a zinc-aluminum-magnesium coating and a manufacturing method therefor. The method may comprise: pretreating a cold-rolled steel plate; immersing the pretreated steel plate in a plating solution containing zinc, aluminum and magnesium as main components for immersion plating treatment, so that the plating solution is coated on at least one of the two surfaces of the steel plate to form a plating solution layer; using an air knife to control the thickness of the plating solution layer on the at least one surface of the steel plate; and cooling the steel plate coated with the plating solution layer. The plating solution may comprise the following components in percentage by mass: 1.5-2.3% of Al, 1.2-1.8% of Mg, 0.01-0.08% of La and Ce, and 0.01-0.08% of at least one of Cu, Cr and Ni, with the balance being Zn and inevitable impurities, wherein the mass ratio of Al to Mg is 1.2 to 1.4, and the mass ratio of La to Ce is 2:1.

IPC 8 full level

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CPC (source: CN EP)

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Citation (search report)

- [I] CN 102268623 B 20141210 - WUXI GUANGRUN METAL PRODUCTS CO LTD
- [A] CN 109536864 A 20190329 - HBIS CO LTD
- [I] CN 103173707 A 20130626 - STATE GRID SMART GRID RES INST, et al
- [IA] EP 3575434 A1 20191204 - NIPPON STEEL CORP [JP]
- [IA] US 2017233859 A1 20170817 - MAALMAN THEODORUS FRANCISCUS JOZEF [NL], et al
- See also references of WO 2021120334A1

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

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