

Title (en)
METHOD FOR PRODUCING A ZINC-MAGNESIUM-GALVANNEALED HOT-DIP COATING AND FLAT STEEL PRODUCT PROVIDED WITH SUCH A COATING

Title (de)
VERFAHREN ZUM ERZEUGEN EINES ZINK-MAGNESIUM-GALVANNEALED-SCHMELZTAUCHÜBERZUGS UND MIT EINEM SOLCHEN ÜBERZUG VERSEHENES STAHLFLACHPRODUKT

Title (fr)
PROCÉDÉ DE PRODUCTION D'UN REVÊTEMENT PAR IMMERSION À CHAUD, GALVANISÉ À BASE DE ZINC - MAGNÉSIUM ET UN PRODUIT PLAT EN ACIER DOTÉ D'UN TEL REVÊTEMENT

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Application
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Abstract (en)
[origin: WO2017020965A1] The invention provides a method for producing a Zn-Mg-galvannealed hot-dip coating with improved corrosion protection on a steel substrate and such a flat steel product. For this purpose, a) a steel substrate is provided, b) the steel substrate is hot-dip-coated in a bath of molten metal saturated with Fe, heated to 350 - 650°C and comprising (in % by weight) 0.1 - 0.16% of Al and 0.1 - 0.6% of Mg and also < 2% of Si, < 1% of either Ni or Cu, < 0.3% of Co, < 0.0001% of Mn, < 0.5% of Sr, < 0.1% in each case of Pb, B, Bi or Cd, < 0.2% of either of REM, Ti or Cr, or < 0.5% of Sn, the remainder zinc and unavoidable impurities and c) a galvannealed treatment is carried out, in which the steel substrate is kept at 450-800°C for 10-25 s, in order to produce on the steel substrate a Zn-Mg-galvannealed hot-dip coating that contains along with Zn and unavoidable impurities (in % by weight) 0.10 - 0.5% of Al, 5.0 - 15.0% of Fe, 0.10 - 0.8% of Mg and also < 2% of Si, < 1% of either Ni or Cu, < 0.3% of Co, < 0.0001% of Mn, < 0.5% of Sr, < 0.1% of either of B, Bi, Cd, Pb, < 0.2% of each of Cr, Ti or REM, < 0.01% of Sn.

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