

Title (en)

ELECTROPLATING SOLUTIONS FOR THE PREPARATION OF TERNARY TIN ZINC COBALT ALLOY LAYERS

Title (de)

GALVANISCHE ELEKTROLYTBÄDER ZUR ERZEUGUNG VON TERNÄREN ZINN-ZINK-KOBALT LEGIERUNGSSCHICHTEN

Title (fr)

BAINS DE GALVANISATION PERMETTANTS DE FORMER DES COUCHES D'ALLIAGE TERNAIRE ETAIN-ZINC-COBALT

Publication

EP 1319093 B1 20081231 (DE)

Application

EP 01969597 A 20010816

Priority

- DE 10045991 A 20000916
- EP 0109452 W 20010816

Abstract (en)

[origin: WO0222913A2] The invention relates to ternary tin zinc alloy coatings 30 - 65 wt. % tin, 30 - 65 wt. % zinc and 0.1 - 15 wt. % metal from the following group as a third alloy component; iron, cobalt, nickel. Correspondingly, alloy coatings can be produced by means of electrolytic deposition from aqueous galvanic electroplating solutions which contain the components of the alloy in a dissolved form. The alloy coatings are characterised in that they have a particularly high resistance to corrosion and are particularly suitable as anti-corrosion protective coatings on iron-based materials.

IPC 8 full level

C22C 13/00 (2006.01); **C22C 18/00** (2006.01); **C25D 3/56** (2006.01); **C25D 3/60** (2006.01); **C25D 5/26** (2006.01); **C25D 7/00** (2006.01)

CPC (source: EP US)

C22C 13/00 (2013.01 - EP US); **C22C 18/00** (2013.01 - EP US); **C25D 3/565** (2013.01 - EP US); **C25D 3/60** (2013.01 - EP US)

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

WO 0222913 A2 20020321; **WO 0222913 A3 20020725**; CN 1239751 C 20060201; CN 1468327 A 20040114; DE 10045991 A1 20020404; DE 50114623 D1 20090212; EP 1319093 A2 20030618; EP 1319093 B1 20081231; HK 1054576 A1 20031205; JP 2004509229 A 20040325; JP 4817352 B2 20111116; US 2004091385 A1 20040513

DOCDB simple family (application)

EP 0109452 W 20010816; CN 01816986 A 20010816; DE 10045991 A 20000916; DE 50114623 T 20010816; EP 01969597 A 20010816; HK 03106913 A 20030925; JP 2002527347 A 20010816; US 38021203 A 20031218