

Title (en)
ELECTROLYTIC IRON PLATING ON ZINC SURFACES

Title (de)
ELEKTROLYTISCHE VEREISENUNG VON ZINKOBERFLÄCHEN

Title (fr)
PLACAGE ÉLECTROLYTIQUE DE FER SUR DES SURFACES EN ZINC

Publication
EP 2726650 B1 20150429 (DE)

Application
EP 12725788 A 20120606

Priority
• DE 102011078258 A 20110629
• EP 2012060642 W 20120606

Abstract (en)
[origin: CA2840117A1] The invention relates to a method for the metallized pre-treatment of galvanized and/or alloy-galvanized steel surfaces or joined metallic components that at least partially have surfaces made of zinc, wherein a thin coating layer of iron is separated on the zinc surfaces from water soluble compounds containing an aqueous electrolyte, which are a source for iron cations. The method according to the invention is carried out at least partially or permanently under the creation of an electrolysis voltage, wherein the galvanized and/or alloy-galvanized steel surfaces are connected as cathodes. The aqueous electrolyte additionally contains an accelerator selected from oxoacids of the elements phosphorous, nitrogen and/or sulfur, wherein the elements phosphorous, nitrogen and/or sulfur are present in average oxidation states.

IPC 8 full level
C25D 3/20 (2006.01); **C23C 22/78** (2006.01); **C25D 5/36** (2006.01)

CPC (source: EP KR US)
C23C 22/78 (2013.01 - EP US); **C25D 3/20** (2013.01 - EP KR US); **C25D 5/36** (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

DOCDB simple family (publication)
DE 102011078258 A1 20130103; AU 2012278121 A1 20140116; AU 2012278121 B2 20160721; CA 2840117 A1 20130103;
CA 2840117 C 20190702; CN 103764878 A 20140430; CN 103764878 B 20160615; EP 2726650 A1 20140507; EP 2726650 B1 20150429;
JP 2014518332 A 20140728; KR 101991141 B1 20190619; KR 20140037149 A 20140326; PL 2726650 T3 20151030;
US 2013206603 A1 20130815; US 9309602 B2 20160412; WO 2013000674 A1 20130103

DOCDB simple family (application)
DE 102011078258 A 20110629; AU 2012278121 A 20120606; CA 2840117 A 20120606; CN 201280031855 A 20120606;
EP 12725788 A 20120606; EP 2012060642 W 20120606; JP 2014517557 A 20120606; KR 20137034840 A 20120606; PL 12725788 T 20120606;
US 201313795528 A 20130312