

Title (en)

METHOD AND SYSTEM FOR SELECTIVE ELECTRO-COATING OF THE SURFACES OF METALS

Title (de)

VERFAHREN UND SYSTEM ZUR SELEKTIVEN GALVANISCHEN BESCHICHTUNG VON METALLOBERFLÄCHEN

Title (fr)

PROCEDE ET SYSTEME POUR RECOUVRIR DE MANIERE SELECTIVE DES SURFACES METALLIQUES PAR GALVANISATION

Publication

EP 1468127 B1 20050504 (DE)

Application

EP 02779151 A 20021011

Priority

- DE 0203833 W 20021011
- DE 10149998 A 20011011

Abstract (en)

[origin: WO03033771A2] Disclosed is a method for selective electro-coating of the surfaces of metals, wherein the surface areas which not are to be coated are initially masked by contactless application of a liquid dielectric and, subsequently, the non-masked surface areas are electroplated. The dielectric is applied in a very precise manner in very fine droplets (14) having a substantially identical droplet size of between 3 and 70 micrometers and a contour acuity of less or equal to 80 micrometers. The droplets (14) are initially electrically charged and are then controlled according to requirements upon application by an electric field. The dielectric can be applied in at least one continuous interruption-free strip (16) or in a controlled discontinuous manner, enabling masking layers (16) of almost all conceivable forms to be produced, especially for flat, flat-stamped or embossed metal strips (10). After electroplating has occurred, the applied dielectric (16) is removed in a residue-free state in an aqueous solution with microdisperse additives. The invention also relates to an electroplating system for carrying out the above-mentioned method.

IPC 1-7

C25D 5/02

IPC 8 full level

B41J 3/407 (2006.01); **C25D 5/02** (2006.01)

CPC (source: EP)

B41J 3/407 (2013.01); **C25D 5/022** (2013.01)

Cited by

DE102010050106A1; DE102009036171B4

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

WO 03033771 A2 20030424; **WO 03033771 A3 20031224**; AT E294880 T1 20050515; AU 2002342532 A1 20030428; DE 10149998 A1 20030430; DE 10149998 C2 20030814; DE 50203040 D1 20050609; EP 1468127 A2 20041020; EP 1468127 B1 20050504; HK 1072787 A1 20050909

DOCDB simple family (application)

DE 0203833 W 20021011; AT 02779151 T 20021011; AU 2002342532 A 20021011; DE 10149998 A 20011011; DE 50203040 T 20021011; EP 02779151 A 20021011; HK 05103400 A 20050420