

Title (en)
PRETREATMENT PROCESS FOR COATING OF ALUMINIUM MATERIALS

Title (de)
VORBEHANDLUNGSPROZESS FÜR DAS BESCHICHTEN VON ALUMINIUMWERKSTOFFEN

Title (fr)
PROCESSUS DE TRAITEMENT DE SURFACE POUR L'ENDUCTION DE MATERIAUX EN ALUMINIUM

Publication
EP 1451392 A2 20040901 (DE)

Application
EP 02785370 A 20021107

Priority
• DE 10159890 A 20011206
• EP 0212437 W 20021107

Abstract (en)
[origin: US2005067296A1] The invention relates to a method for applying electro-deposited metal coatings (3) upon aluminium or aluminium alloy components (1). According to said method, the surface (4) of the component is cleaned in an appropriate solution, in particular a solution of oils, fats, emulsions, pigments, etc. Said surface (4) is then etched in an appropriate solution, such that a certain quantity of material or near-surface alloy constituents is dissolved. After cleaning and dissolution, water rinsing is carried out. Immediately after the dissolution of the near-surface regions, the surface (4) of said component (1) is activated in a solution, containing iron ions, with a sulphate base by the anodic coupling of said component (1). The functional layer (3) is then applied by the cathodic coupling of said component (1), without intermediate rinsing, in the same electrolyte or in a similar or equivalent electrolyte, said functional layer (3) being made of iron (5).

IPC 1-7
C25D 5/44; **C25D 7/00**; **F02F 1/00**; **F02F 3/10**

IPC 8 full level
C25D 3/20 (2006.01); **C25D 5/10** (2006.01); **C25D 5/30** (2006.01); **C25D 5/44** (2006.01); **C25D 7/00** (2006.01); **C25D 13/10** (2006.01); **F02F 3/10** (2006.01)

CPC (source: EP US)
C25D 5/44 (2013.01 - EP US); **C25D 7/00** (2013.01 - EP US); **F02F 3/10** (2013.01 - EP US); **C25D 3/20** (2013.01 - EP US); **F05C 2201/021** (2013.01 - EP US); **F05C 2201/0436** (2013.01 - EP US); **F05C 2201/903** (2013.01 - EP US); **F05C 2253/12** (2013.01 - EP US)

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 03048427 A2 20030612; **WO 03048427 A3 20031224**; AT E332401 T1 20060715; AU 2002350675 A1 20030617; BR 0212923 A 20041013; CN 1599809 A 20050323; DE 10159890 A1 20030724; DE 10159890 B4 20060216; DE 50207452 D1 20060817; EP 1451392 A2 20040901; EP 1451392 B1 20060705; ES 2264735 T3 20070116; JP 2005511898 A 20050428; PL 204301 B1 20091231; PL 368710 A1 20050404; US 2005067296 A1 20050331

DOCDB simple family (application)
EP 0212437 W 20021107; AT 02785370 T 20021107; AU 2002350675 A 20021107; BR 0212923 A 20021107; CN 02823948 A 20021107; DE 10159890 A 20011206; DE 50207452 T 20021107; EP 02785370 A 20021107; ES 02785370 T 20021107; JP 2003549602 A 20021107; PL 36871002 A 20021107; US 49758004 A 20040603