

Title (en)

Method for metallising non-conductive plastic surfaces

Title (de)

Verfahren zum Metallisieren nichtleitender Kunststoffoberflächen

Title (fr)

Procédé de métallisation de surfaces en matière synthétique non conductrices

Publication

EP 2639334 A1 20130918 (DE)

Application

EP 12159659 A 20120315

Priority

EP 12159659 A 20120315

Abstract (en)

Metallizing electrically nonconductive plastic surfaces of articles involves: (A) treating the plastic surface with etching solutions; (B) treating the plastic surface with a solution of a colloid or of a compound of a metal; and (C) metallizing the plastic surface with a metallizing solution, where the etching solutions comprise at least one acidic etching solution and at least one alkaline etching solution, and that each of the etching solutions comprise a source for permanganate ions.

Abstract (de)

Die vorliegende Erfindung betrifft ein Verfahren zur Metallisierung nichtleitender Kunststoffe unter Verwendung von Beizlösungen, die frei von hexavalentem Chrom sind. Die Beizlösungen basieren auf Permanganatlösungen. Nach der Behandlung der Kunststoffe mit den Beizlösungen werden die Kunststoffe mittels bekannter Verfahren metallisiert.

IPC 8 full level

C23C 18/22 (2006.01)

CPC (source: EP US)

C23C 18/1641 (2013.01 - US); **C23C 18/166** (2013.01 - US); **C23C 18/2086** (2013.01 - US); **C23C 18/22** (2013.01 - EP US); **C23C 18/24** (2013.01 - US); **C23C 18/28** (2013.01 - US); **C25D 5/56** (2013.01 - EP US); **C23C 18/1653** (2013.01 - EP US); **C23C 18/2073** (2013.01 - EP US); **C23C 18/30** (2013.01 - EP US)

Citation (applicant)

- EP 1054081 B1 20060201 - ATOTECH DEUTSCHLAND GMBH [DE]
- DE 19611137 A1 19970925 - LPW ANLAGEN GMBH [DE]
- EP 1001052 A2 20000517 - LPW CHEMIE GMBH [DE]
- WO 2009023628 A2 20090219 - ENTHONE [US], et al

Citation (search report)

- [X] US 5286530 A 19940215 - KARAS BRADLEY R [US], et al
- [X] EP 0616049 A2 19940921 - GEN ELECTRIC [US]
- [X] US 4629636 A 19861216 - COURDUVELIS CONSTANTINE I [US], et al

Cited by

CN103957670A

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2639334 A1 20130918; BR 112014021969 B1 20201215; CA 2866769 A1 20130919; CA 2866769 C 20200915; CN 104169466 A 20141126; CN 109913860 A 20190621; EP 2825688 A1 20150121; EP 2825688 B1 20160518; ES 2587730 T3 20161026; JP 2015513003 A 20150430; JP 6246139 B2 20171213; KR 101872066 B1 20180627; KR 20140138290 A 20141203; PL 2825688 T3 20161130; PT 2825688 T 20160804; US 2015017331 A1 20150115; US 9051643 B2 20150609; WO 2013135863 A1 20130919

DOCDB simple family (application)

EP 12159659 A 20120315; BR 112014021969 A 20130315; CA 2866769 A 20130315; CN 201380014402 A 20130315; CN 201910131690 A 20130315; EP 13709442 A 20130315; EP 2013055357 W 20130315; ES 13709442 T 20130315; JP 2014561462 A 20130315; KR 20147028905 A 20130315; PL 13709442 T 20130315; PT 13709442 T 20130315; US 201314379497 A 20130315