Title (en)

COATING AN ALUMINUM ALLOY SUBSTRATE

Title (de)

BESCHICHTUNG VON ALUMINIUMLEGIERUNGSSUBSTRATEN

Title (fr)

REVETEMENT D'UN SUBSTRAT EN ALLIAGE D'ALUMINIUM

Publication

EP 1228263 B1 20040407 (EN)

Application

EP 99964956 A 19991103

Priority

- US 9925894 W 19991103
- US 7413698 A 19980507

Abstract (en)

[origin: WO0132955A1] An alluminum alloy substrate is pretreated with an aqueous solution containing an organophosphorus compound, preferably a vinylphosphonic acid-acrylic acid copolymer, before coating the substrate with a polymer. Passing the substrate through the solution contaminates it with aluminum and other elements. The pretreatment solution is rejuvenated by removing aluminum with a cation exchange resin that preferably contains a styrene-divinyl benzene copolymer functionalized with sulfonate groups. Rinsing the substrate contaminates the rinse water with the copolymer. The rinse water is concentrated by reverse osmosis or membrane ultrafiltration and retured to the pretreatment solution.

IPC 1-7

C23C 22/86; C23C 22/56; B05D 3/10

IPC 8 full level

B05D 7/14 (2006.01); **B05D 3/10** (2006.01); **B05D 7/00** (2006.01); **B05D 7/16** (2006.01); **C23C 22/56** (2006.01); **C23C 22/86** (2006.01); **C23C 26/00** (2006.01)

IPC 8 main group level

C23C (2006.01)

CPC (source: EP KR)

B05D 7/16 (2013.01 - EP); **B05D 7/51** (2013.01 - EP); **C23C 18/20** (2013.01 - KR); **C23C 22/86** (2013.01 - EP); B05D 7/52 (2013.01 - EP); B05D 2202/25 (2013.01 - EP)

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