

Title (en)

Coating method for light metal alloy surfaces

Title (de)

Beschichtungsverfahren für Leichtmetalllegierungsoberflächen

Title (fr)

Méthode de recouvrement des surfaces d'alliages de métaux légers

Publication

EP 1302565 A1 20030416 (DE)

Application

EP 01124435 A 20011011

Priority

EP 01124435 A 20011011

Abstract (en)

Process for coating light metal alloy surfaces comprises cleaning the surfaces; chemically metallizing using zinc; intermediate coating in a galvanic manner; and galvanically coating using tin. <??>Preferably the cleaning step comprises degreasing the surface using an alkali, and treating the surface in an acidic solution or solution of a salt of an acid with simultaneous oxidative production of a passivating layer. Treatment with the acidic solution comprises treating in a weakly acidic solution and then in a strongly acidic solution. The weakly acidic solution contains a carboxylic acid and a pyrophosphate and the strongly acidic solution contains phosphoric acid and ammonium bifluoride.

Abstract (de)

Die Erfindung bezieht sich auf ein Verfahren zum Beschichten von Leichtmetalllegierungsoberflächen, mit dem nach einer passivierenden Reinigung und einer chemischen Metallisierung über eine galvanische Zwischenschicht eine Sn enthaltende galvanische Schicht aufgebracht wird. Diese Schicht ist elektrisch leitfähig und kann zusätzlich lackiert werden. <IMAGE>

IPC 1-7

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Citation (search report)

- [XAY] DE 19724013 A1 19981210 - ALFRED R FRANZ FA [DE]
- [A] US 3767582 A 19731023 - MILLER G
- [Y] DE 19756845 A1 19990624 - ALFRED R FRANZ FA [DE]
- [Y] EP 0978576 A1 20000209 - MITSUI MINING & SMELTING CO [JP]
- [YA] DE 19723975 A1 19981210 - ALFRED R FRANZ FA [DE]
- [A] US 4978432 A 19901218 - SCHMELING EDITH L [DE], et al
- [A] US 4744872 A 19880517 - KOBAYASHI WAICHI [JP], et al
- [A] US 2215165 A 19400917 - GORDON SUMNER CYRIL
- [YA] WERNICK; PINNER: "The Surface Treatment and Finishing of Aluminium and its Alloys; Vol. 2; fifth ed.", 1987, TEDDINGTON, FINISHING PUBLICATIONS, GB, XP002194327, 155780
- [Y] DATABASE WPI Section Ch Week 197740, Derwent World Patents Index; Class M11, AN 1977-71193Y, XP002194328
- [Y] DATABASE WPI Section Ch Week 198502, Derwent World Patents Index; Class M11, AN 1985-009541, XP002194329

Cited by

EP2233534A1; ITMI20090405A1

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DOCDB simple family (application)

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