

Title (en)

MECHANICAL PLATING WITH OXIDATION-PRONE METALS.

Title (de)

MECHANISCHES PLATTIEREN MIT MATERIAL, DAS EINER OXIDATION AUSGESETZT IST.

Title (fr)

PLAQUAGE MECANIQUE AVEC METAUX SUJETS A OXYDATION.

Publication

EP 0288484 A4 19891012 (EN)

Application

EP 87904782 A 19870706

Priority

US 92196186 A 19861022

Abstract (en)

[origin: DE3729921A1] In a mechanical plating process, oxidation-prone metals, such as aluminum, titanium, magnesium, and mixtures thereof, can be applied to metal substrates without the corrosion problems encountered in the prior art. To avoid such problems, the substrate is plated with the oxidation-prone metal and relatively minor amounts of an immersion metal and, optionally, a protective metal. The immersion metal which can be salts or oxides of metals selected from the group consisting of tin, copper, nickel, cadmium, zinc, lead, and mixtures thereof coats the oxidation-prone metal in forming a mechanical plating coating and prevents formation of an oxide layer on the oxidation-prone metal. The protective metal which may be selected from the group consisting of zinc, cadmium, and mixtures thereof prevents oxidation of the plated metal substrate when exposed to the environment. An etching agent is used either prior to and/or during mechanical plating.

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B05D 3/12; **B32B 15/01**

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

- [X] GB 1120341 A 19680717 - BRITISH ROPES LTD
- [A] DE 1758090 A1 19710609 - MADERS EUGEN DR
- [AD] EP 0012399 A1 19800625 - TOLKMIT BERND
- [A] US 3132043 A 19640505 - CLAYTON ERITH T
- [A] US 3023127 A 19620227 - CLAYTON ERITH T
- [A] FR 2354390 A1 19780106 - WALDES KOHINOOR INC [US]
- [AD] EP 0040090 A1 19811118 - MINNESOTA MINING & MFG [US]
- [A] DE 973171 C 19591217 - VOEST AG
- See references of WO 8803060A1

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