

Title (en)

ELECTROPHORETIC WEAR-RESISTANT METAL-CERAMIC COATING CONSOLIDATED BY ELECTROLYTIC NICKEL PLATING

Publication

**EP 0368753 B1 19930526 (FR)**

Application

**EP 89403069 A 19891108**

Priority

FR 8814607 A 19881109

Abstract (en)

[origin: EP0368753A1] According to the invention, to produce a protective coating 30 resistant to wear in alternating friction at medium temperature on a substrate of steel or of especially nickel-based superalloy, the following stages are performed: a) electrophoretic deposition of a metal-ceramic structure consisting of a mixture of 85% to 50% of metal powder and of 15% to 50% of ceramic powder, in which mixture the metal powder is a cobalt-based superalloy of the KC 25 NW type or of the M - Cr Al Y type where M denotes a metal chosen from the group consisting of Ni, Co and Fe or a mixture of these with optional addition of Ta, and in which the ceramic powder is chosen from the group consisting of oxides, especially Al<sub>2</sub>O<sub>3</sub> or Cr<sub>2</sub>O<sub>3</sub>, carbons, especially SiC or Cr<sub>3</sub>C<sub>2</sub>, nitrides, especially BN or TiN or borides, especially TiB<sub>2</sub>; b) electrolytic preliminary nickel-plating in an electrolysis bath at a pH of between 6 and 8; c) electrolytic nickel-plating in an acidic bath of sulphamate type. <??>Application to motor components subject to alternating friction at a temperature close to or higher than 700 DEG C.

IPC 1-7

**C25D 13/02**; **C25D 15/00**

IPC 8 full level

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CPC (source: EP US)

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