

Title (en)

A process for phosphate-coating metal surfaces.

Title (de)

Verfahren zur Phosphatierung von Metalloberflächen.

Title (fr)

Procédé de phosphatation de surfaces métalliques.

Publication

EP 0544650 A1 19930602 (EN)

Application

EP 93200125 A 19860827

Priority

- EP 86306622 A 19860827
- US 77003185 A 19850827

Abstract (en)

A process for phosphating a metal surface, particularly to avoid white spots, involving treating the metal surface with an acidic aqueous phosphate solution in which one establishes and maintains a concentration of at most 0.2 g/l and preferably no chlorate ion as well as the smallest practical concentration never exceeding 0.5 g/l of chloride ion, the solution otherwise containing: a) from 0.1 to 1.5 g/l of zinc ion, b) from 5 to 50 g/l of phosphate ion, c) from at least 0.2 to 4 g/l of manganese ion, d) at least 0.05 g/l of a fluoride ion, and e) at least one of the following phosphating accelerators in the following concentrations: i) from 0.01 to 0.2 g/l of nitrite ion, ii) from 1 to 15 g/l of nitrate ion, iii) from 0.5 to 5 g/l of hydrogen peroxide (based on 100% H₂O₂), iv) from 0.05 to 2 g/l of m-nitro-benzene-sulfonate ion, v) from 0.05 to 2 g/l of m-nitro-benzoate ion, and vi) from 0.05 to 2 g/l of p-nitrophenol. o

IPC 1-7

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IPC 8 full level

C23C 22/36 (2006.01)

CPC (source: EP)

C23C 22/364 (2013.01); **C23C 22/365** (2013.01)

Citation (search report)

- [X] GB 2148951 A 19850605 - PYRENE CHEMICAL SERVICES LTD
- [Y] EP 0106459 A1 19840425 - NIPPON PAINT CO LTD [JP]
- [X] WO 8503089 A1 19850718 - FORD WERKE AG [DE], et al
- [E] EP 0213567 A1 19870311 - PARKER CHEMICAL CO [US]

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EP 0228151 A1 19870708; EP 0228151 B1 19931222; AT E160592 T1 19971215; AT E99002 T1 19940115; DE 3650659 D1 19980108; DE 3650659 T2 19980702; DE 3689442 D1 19940203; DE 3689442 T2 19940616; EP 0544650 A1 19930602; EP 0544650 B1 19971126; HK 1007771 A1 19990423; HK 1012681 A1 19990806; SG 52645 A1 19980928

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