Title (en)

PROCESS FOR PHOSPHATIZING METAL SURFACES

Publication

EP 0324395 B1 19921216 (DE)

Application

EP 89100228 A 19890107

Priority

DE 3800835 A 19880114

Abstract (en)

[origin: US4944813A] The present invention relates to a process for phosphating metal surfaces, and more specifically of surfaces of iron, zinc, and aluminum and the alloys thereof as a pretreatment for cold working wherein the surfaces without previous activation are contacted in a temperature range of from 30 DEG C. to 70 DEG C. with an aqueous solution containing (a) from 10 to 40 g/l of Ca2+ ions, (b) from 10 to 40 g/l of Zn2+ ions, (c) from 10 to 100 g/l of OP43- ions and, as accelerator, (d) from 10 to 100 g/l of NO3- ions and/or (e) from 0.1 to 2.0 g/l of organic nitro compounds, said solution exhibiting a pH value in the range of from 2.0 to 3.8 and a ratio of free acid to total acid of from 1:4 to 1:100.

IPC 1-7

C23C 22/22

IPC 8 full level

C23C 22/12 (2006.01); **C23C 22/13** (2006.01); **C23C 22/22** (2006.01); **C23C 22/36** (2006.01)

CPC (source: EP US)

C23C 22/22 (2013.01 - EP US); **C23C 22/367** (2013.01 - EP US)

Citation (examination)

EP 0045110 A1 19820203 - METALLGESELLSCHAFT AG [DE], et al

Cited by

WO2006122651A1; EA012533B1

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AT BE DE ES FR GB GR IT NL SE

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