Title (en)

PROCESS FOR APPLYING PHOSPHATE COATINGS TO METALS

Publication

EP 0327153 A3 19900425 (DE)

Application

EP 89200142 A 19890124

Priority

DE 3803068 A 19880203

Abstract (en)

[origin: EP0327153A2] To produce phosphate coatings on metal components having surfaces of at least partially iron or steel, these are treated at a temperature in the range from 60 to 100 DEG C for a period of 3 to 30 seconds with a phosphating solution which contains 10 to 80 g/l of zinc, 12 to 80 g/l of phosphate (calculated as P2O5) and 40 to 150 g/l of nitrate, and also additionally 0.1 to 5 g/l of fluoride, 0.01 to 10 g/l of nickel, 0.001 to 0.1 g/l of copper and, if appropriate, tartaric acid, citric acid and/or manganese, in which solution the free acid/total acid ratio has been adjusted to (0.1 to 0.3):1 and which contains at least 80 points of total acid. <??>The components can be cleaned before the phosphating, if appropriate freed of rust, scale and phosphate layers, activated and, after the phosphating, passivated with a rinsing solution, each of these process steps being carried out for a period of 3 to 30 seconds.

IPC 1-7

C23C 22/36; C23C 22/78

IPC 8 full level

C23C 22/13 (2006.01); **C23C 22/36** (2006.01); **C23C 22/78** (2006.01)

CPC (source: EP US)

C23C 22/362 (2013.01 - EP US); **C23C 22/78** (2013.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

BE DE ES FR IT

DOCDB simple family (publication)

EP 0327153 A2 19890809; **EP 0327153 A3 19900425**; **EP 0327153 B1 19930804**; CA 1330515 C 19940705; DE 58905074 D1 19930909; ES 2058464 T3 19941101; JP 2713334 B2 19980216; JP H01259180 A 19891016; US 4950339 A 19900821

DOCDB simple family (application)

EP 89200142 A 19890124; CA 589900 A 19890202; DE 58905074 T 19890124; ES 89200142 T 19890124; JP 2098089 A 19890201; US 30521489 A 19890201