

Title (en)
PHOSPHATING METAL SURFACES

Publication
EP 0060716 B1 19880420 (EN)

Application
EP 82301330 A 19820316

Priority
JP 3841181 A 19810316

Abstract (en)
[origin: EP0060716A1] Iron- or zinc-based metal surfaces, especially on a component having both an iron-based surface and a zinc-based surface, for example car bodies, are phosphated by dipping them into an acidic aqueous solution containing: (a) from 0.5 to 1.5 g/l of zinc ion; (b) from 5 to 30 g/l of phosphate ion; (c) from 0.6 to 3 g/l of manganese ion; and (d) a conversion coating accelerator. The phosphated metal surfaces are then suitable especially for electrocoating.

IPC 1-7
C23C 22/07; **C23C 22/18**

IPC 8 full level
C25D 13/20 (2006.01); **B05D 1/18** (2006.01); **C23C 22/07** (2006.01); **C23C 22/17** (2006.01); **C23C 22/18** (2006.01); **C23C 22/73** (2006.01); **C23C 22/76** (2006.01)

CPC (source: EP)
C23C 22/182 (2013.01); **C23C 22/184** (2013.01); **C23C 22/73** (2013.01)

Citation (examination)
EP 0018841 A1 19801112 - AMCHEM PROD [US]

Cited by
US5244512A; GB2148951A; EP0172806A4; EP0385806A1; EP0135622A1; US6090224A; US5238506A; EP0261597A3; US5792283A; CN1041001C; AU624433B2; EP1012355A4; EP0219779A3; US4762572A; US5268041A; US5211769A; US5399208A; GB2138844A; US4941930A; EP0213567A1; AU594685B2; EP1693181A4; US7531056B2; US6620263B1; US6447662B1; WO2005051639A1; WO9102829A3; WO9012901A1; WO9507370A1; WO0132953A1

Designated contracting state (EPC)
AT BE DE FR GB IT NL SE

DOCDB simple family (publication)
EP 0060716 A1 19820922; **EP 0060716 B1 19880420**; AT E33684 T1 19880515; AU 554406 B2 19860821; AU 8150782 A 19820923; BR 8201400 A 19830201; CA 1200739 A 19860218; CS 179582 A2 19840618; DE 3278367 D1 19880526; ES 510472 A0 19830201; ES 8302127 A1 19830201; JP H0137478 B2 19890807; JP S57152472 A 19820920; MX 156539 A 19880908; MX 172180 B 19931207

DOCDB simple family (application)
EP 82301330 A 19820316; AT 82301330 T 19820316; AU 8150782 A 19820315; BR 8201400 A 19820315; CA 398352 A 19820315; CS 179582 A 19820316; DE 3278367 T 19820316; ES 510472 A 19820316; JP 3841181 A 19810316; MX 1195582 A 19820315; MX 19181582 A 19820315