

Title (en)

METHOD FOR FORMING PHOSPHATE COATINGS ON NONFERROUS METALS AND PLATED STEEL SHEETS

Title (de)

VERFAHREN ZUR HERSTELLUNG VON PHOSPATSCHICHTEN AUF NICHEISENMETALLE UND PLATIERTE STAHLBLECHE

Title (fr)

PROCEDE POUR FORMER DES REVETEMENTS DE PHOSPHATE SUR DES METAUX NON FERREUX ET DES TOLES D'ACIER PLAQUEES

Publication

EP 1290244 A1 20030312 (EN)

Application

EP 01928375 A 20010406

Priority

- JP 2000107436 A 20000410
- US 0111248 W 20010406

Abstract (en)

[origin: WO0177411A1] The present invention comprises providing a phosphate coating of at least 50 % $Zn_2Fe(PO_4)_2 \cdot 4H_2O$ on metal having a nonferrous surface by contacting the metal with a phosphate treatment bath that contains zinc ion, phosphate ion, and hydroxylammonium ion and at least 17 weight parts ferrous ion for each 100 weight parts zinc ion. This method can be run on the metal after the metal has been brought into contact with a surface conditioning bath containing divalent or trivalent metal phosphate particles no larger than 5 μm . The hydroxylammonium ion concentration is preferably 0.2 to 5 g/L, the phosphate ion concentration is preferably 5.0 to 30 g/L, the zinc ion concentration is preferably 0.5 to 5.0 g/L, and the ferrous ion concentration is preferably 0.2 to 5.0 g/L.

IPC 1-7

C23C 22/78; C23C 22/12; C23C 22/13; C23C 22/18; C23C 22/22

IPC 8 full level

C23C 22/12 (2006.01); C23C 22/13 (2006.01); C23C 22/18 (2006.01); C23C 22/22 (2006.01); C23C 22/78 (2006.01)

CPC (source: EP)

C23C 22/12 (2013.01); C23C 22/13 (2013.01); C23C 22/182 (2013.01); C23C 22/22 (2013.01); C23C 22/78 (2013.01)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

WO 0177411 A1 20011018; AU 5523901 A 20011023; EP 1290244 A1 20030312; EP 1290244 A4 20040915; JP 2001295063 A 20011026

DOCDB simple family (application)

US 0111248 W 20010406; AU 5523901 A 20010406; EP 01928375 A 20010406; JP 2000107436 A 20000410