

Title (en)

Phosphate coated metal product, process for producing it, concentrate for use in the process and concentrate for replenishing the coating solution.

Title (de)

Metallgegenstand mit Phosphatüberzug, Verfahren zu seiner Herstellung, Konzentrat zur Verwendung in diesem Verfahren und Konzentrat zum Auffrischen der Phosphatlösung.

Title (fr)

Produit métallique à revêtement de phosphate, procédé de sa production, concentré à utiliser dans ce procédé et concentré pour le remontage de la solution de revêtement.

Publication

EP 0407015 A1 19910109 (EN)

Application

EP 90305186 A 19900515

Priority

JP 12077589 A 19890515

Abstract (en)

A coating product has a zinc phosphate film for coating on a metal surface and thereon a coating film. The zinc phosphate film contains 20 SIMILAR 42 weight % of zinc, 0.5 SIMILAR 8 weight % of calcium, and 1.0 SIMILAR 8 weight % of nickel. The zinc phosphate film of this kind is obtained by treating the metal surface with dipping in an aqueous acidic phosphate-treating solution which contains at least a zinc ion, a phosphate ion, a calcium ion, a nickel ion, a fluorine compound, and an accelerator for converting into a film in specially defined concentrations and, in which the weight ratios of the calcium ion vs. the zinc ion, the nickel ion vs. the zinc ion, and the fluorine compound vs. the phosphate ion are set in specially defined ranges.

IPC 1-7

C23C 22/36; **C23C 22/44**

IPC 8 full level

C23C 22/12 (2006.01); **C23C 22/22** (2006.01); **C23C 22/36** (2006.01); **C23C 22/44** (2006.01)

CPC (source: EP)

C23C 22/367 (2013.01); **C23C 22/44** (2013.01)

Citation (search report)

- [X] EP 0018841 A1 19801112 - AMCHEM PROD [US]
- [Y] EP 0155547 A1 19850925 - COLLARDIN GMBH GERHARD [DE]
- [Y] EP 0015020 A1 19800903 - METALLGESELLSCHAFT AG [DE], et al
- [A] FR 1391804 A 19650312 - LUBRIZOL CORP
- [A] EP 0045110 A1 19820203 - METALLGESELLSCHAFT AG [DE], et al
- [A] FR 2111665 A1 19720609 - LUBRIZOL CORP

Cited by

EP0759096A4; US5795407A

Designated contracting state (EPC)

DE ES FR GB

DOCDB simple family (publication)

EP 0407015 A1 19910109; CA 2016798 A1 19901115; JP H0375379 A 19910329

DOCDB simple family (application)

EP 90305186 A 19900515; CA 2016798 A 19900515; JP 10942790 A 19900424