

Title (en)

RESOURCE-CONSERVING METHOD FOR ZINC PHOSPHATING A METAL SURFACE

Title (de)

RESSOURCENSCHONENDES VERFAHREN ZUR ZINKPHOSPHATIERUNG EINER METALLOBERFLÄCHE

Title (fr)

PROCÉDÉ DE CONSERVATION DE RESSOURCES POUR LA PHOSPHATATION AU ZINC D'UNE SURFACE MÉTALLIQUE

Publication

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Application

**EP 21735717 A 20210628**

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Abstract (en)

[origin: WO2022033759A1] The present invention relates to a method for layer-forming zinc phosphating of metal surfaces using a colloidal, aqueous solution as an activation stage, wherein a zinc phosphate layer having a layer weight of less than 2.0 g/m<sup>2</sup> is deposited on the surfaces of zinc in the method step following the activation. The activation stage is based on a colloidal, aqueous solution containing a dispersed, particulate component, wherein the particulate component contains, in addition to dispersed inorganic compounds of phosphates of polyvalent metal cations, a polymeric organic compound as a dispersant which at least in part is composed of styrene and/or an  $\alpha$ -olefin having no more than 5 carbon atoms, wherein the polymeric organic compound has additional units of maleic acid, the anhydride thereof and/or the imide thereof and the polymeric organic compound additionally has polyoxyalkylene units. In order to form closed zinc phosphate coatings which sufficiently protect against corrosion and which can be supplied to subsequent electrophoretic painting, it is necessary that the portion of particulate components of the colloidal, aqueous solution equals at least 4 g/kg in relation to the colloidal, aqueous solution.

IPC 8 full level

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