SLOVENSKI STANDARD
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Kovinske in druge anorganske prevleke - Fosfatne prevleke na kovinah (ISO/DIS 9717)

Metallic and other inorganic coatings - Phosphate conversion coating of metals

Metallische und andere anorganische Überzüge - Phosphatüberzüge auf Metallen

Revêtements métalliques et autres revêtements inorganiques - Couches de conversion au phosphate sur métaux

Ta slovenski standard je istoveten z: **prEN ISO 9717**

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Metallic and other inorganic coatings — Phosphate conversion coating of metals

Revêtements métalliques et autres revêtements inorganiques — Couches de conversion au phosphate sur métaux

ICS: 25.220.20

ISO/CEN PARALLEL PROCESSING

This draft has been developed within the International Organization for Standardization (ISO), and processed under the **ISO lead** mode of collaboration as defined in the Vienna Agreement.

This draft is hereby submitted to the ISO member bodies and to the CEN member bodies for a parallel five month enquiry.

To expedite distribution, this document is circulated as received from the committee secretariat. ISO Central Secretariat work of editing and text composition will be undertaken at publication stage.

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Contents

Page

Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 107/SC 8, *Chemical conversion coatings.*

Introduction

Phosphate conversion coatings are applied to ferrous metals, aluminium, zinc and their alloys (including zinc- and zinc-alloy-plated steel, cadmium and their alloys) either as an end finish or as an intermediate layer for other coatings. They are intended to

a) impart corrosion resistance,

b) improve adhesion to paints and other organic finishes,

c) facilitate cold-forming operations, such as wire drawing, tube drawing and extrusion, and

d) modify surface frictional properties so as to facilitate sliding.

Phosphate conversion coatings are produced by treatment with solutions, the main constituents of which are the appropriate dihydrogen orthophosphates. These coatings are applied principally to ferrous materials, aluminium, zinc and cadmium and differ in coating mass per unit area and apparent density, depending on

a) the construction material and surface condition of the components,

b) previous mechanical and chemical treatment of the components, and

c) processing conditions for phosphating.

All phosphate conversion coatings are more or less porous but can be sealed substantially by subsequent sealing processes.

Metallic and other inorganic coatings — Phosphate conversion coating of metals

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1 Scope

This International Standard specifies a process for the determination of requirements for phosphate coatings which are basically destined for application on ferrous material, aluminium, zinc, cadmium and there alloys (see Annex A).

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2080, *Metallic and other inorganic coatings — Surface treatment, metallic and other inorganic coatings — Vocabulary*

ISO 3892, *Conversion coatings on metallic materials — Determination of coating mass per unit area — Gravimetric methods*

ISO 4519, *Electrodeposited metallic coatings and related finishes — Sampling procedures for inspection by attributes*

ISO 9227, *Corrosion tests in artificial atmospheres — Salt spray tests*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 2080 apply.

4 Information to be supplied by the purchaser to the processor

The following information shall be given by the customer:

a) description of coating;

b) in case of phosphating steel parts with a strength class 10.9/10, the safety against brittle fracture (hydrogen embrittlement) is of primary importance. The phosphatising process must be carried out in such a manner that that any damage because of hydrogen induced brittleness is excluded. Technical