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**PHOSPHATE CONVERSION COATINGS OF  
METALS - METHOD OF SPECIFYING  
REQUIREMENTS**

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English version

**Phosphate conversion coatings of metals - Method of specifying requirements**

Couches de conversion phosphatées des métaux -  
Méthode de spécifications des exigences

Phosphatierüberzüge auf Metallen - Verfahren für die  
Festlegung von Anforderungen

This European Standard was approved by CEN on 1 March 2000.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
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## Foreword

This European Standard has been prepared by Technical Committee CEN/TC 262 "Metallic and other inorganic coatings", the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2000, and conflicting national standards shall be withdrawn at the latest by October 2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

This European Standard specifies a method of specifying requirements for phosphate conversion coatings, intended primarily for application to ferrous metals, aluminium, zinc, cadmium and their alloys (see annex A).

## 2 Normative references

This European Standard incorporates by dated and undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN ISO 3892, *Conversion coatings on metallic materials — Determination of coating mass per unit area — Gravimetric methods (ISO 3892 :1980)*.

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 Information to be supplied by the purchaser

The following information shall be supplied by the purchaser:

- a) the coating designation (see clause 4);
- b) any necessary heat treatment for parts that might be subject to failure from the effects of hydrogen induced during the preparation or phosphating processes (see notes 1 and 2);
- c) sampling methods, acceptance levels or any other inspection requirements, if different from those given in ISO 4519 (see clause 5);
- d) the surface preparation prior to phosphate conversion coating (see A.2);
- e) the surface appearance (see 6.1);
- f) corrosion resistance (see 6.3);
- g) the nature, condition and finish of the basis metal, if any of these could affect the serviceability and/or the appearance of the coating.

NOTE 1 Heat treatment procedures and classes are specified in ISO 9587 for stress relieving before processing and in ISO 9588 for embrittlement relief after processing, but other conditions may be specified by the purchaser provided that they can be shown to be effective.

NOTE 2 Heat treatment in accordance with the recommended conditions can never guarantee complete freedom from hydrogen embrittlement and tests should be specified whenever possible. Freedom from failure of test samples will enable a degree of confidence in the procedure to be demonstrated depending on the size of the sample tested.

## 4 Coating types and designation

### 4.1 Coating types

The conversion coating shall be described in accordance with table 1.

NOTE Annex B provides guidance on coating type, purpose, end use and mass per unit area.

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