



**SLOVENSKI STANDARD
SIST EN ISO 9717:2014**

01-april-2014

**Nadomešča:
SIST EN 12476:2000**

Kovinske in druge anorganske prevleke - Fosfatne prevleke na kovinah (ISO 9717:2010)

Metallic and other inorganic coatings - Phosphate conversion coating of metals (ISO 9717:2010)

Metallische und andere anorganische Überzüge - Phosphatüberzüge auf Metallen (ISO 9717:2010)

Revêtements métalliques et autres revêtements inorganiques - Couches de conversion au phosphate sur métaux (ISO 9717:2010)

Ta slovenski standard je istoveten z: EN ISO 9717:2013

ICS:

25.220.40 Kovinske prevleke Metallic coatings

SIST EN ISO 9717:2014 **en,fr,de**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 9717:2014](https://standards.iteh.ai/catalog/standards/sist/a8058391-7657-4ac1-bb0c-683cfa28a04a/sist-en-iso-9717-2014)

<https://standards.iteh.ai/catalog/standards/sist/a8058391-7657-4ac1-bb0c-683cfa28a04a/sist-en-iso-9717-2014>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 9717

April 2013

ICS 25.220.20

Supersedes EN 12476:2000

English Version

Metallic and other inorganic coatings - Phosphate conversion coating of metals (ISO 9717:2010)

Revêtements métalliques et autres revêtements inorganiques - Couches de conversion au phosphate sur métaux (ISO 9717:2010)

Metallische und andere anorganische Überzüge - Phosphatüberzüge auf Metallen (ISO 9717:2010)

This European Standard was approved by CEN on 28 March 2013.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

<https://standards.iteh.ai/catalog/standards/sist/a8058391-7657-4ac1-bb0c-683cfa28a04a/sist-en-iso-9717-2014>



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....3

**iTeh STANDARD PREVIEW
(standards.iteh.ai)**

[SIST EN ISO 9717:2014](https://standards.iteh.ai/catalog/standards/sist/a8058391-7657-4ac1-bb0c-683cfa28a04a/sist-en-iso-9717-2014)

<https://standards.iteh.ai/catalog/standards/sist/a8058391-7657-4ac1-bb0c-683cfa28a04a/sist-en-iso-9717-2014>

Foreword

The text of ISO 9717:2010 has been prepared by Technical Committee ISO/TC 107 “Metallic and other inorganic coatings” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 9717:2013 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 2013, and conflicting national standards shall be withdrawn at the latest by October 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12476:2000.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

(standards.iteh.ai)

Endorsement notice

The text of ISO 9717:2010 has been approved by CEN as EN ISO 9717:2013 without any modification.

<https://standards.iteh.ai/catalog/standards/sist/a8058391-7657-4ac1-bb0c-683cfa28a04a/sist-en-iso-9717-2014>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 9717:2014](https://standards.iteh.ai/catalog/standards/sist/a8058391-7657-4ac1-bb0c-683cfa28a04a/sist-en-iso-9717-2014)

<https://standards.iteh.ai/catalog/standards/sist/a8058391-7657-4ac1-bb0c-683cfa28a04a/sist-en-iso-9717-2014>

INTERNATIONAL
STANDARD

ISO
9717

Second edition
2010-12-15

**Metallic and other inorganic coatings —
Phosphate conversion coating of metals**

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

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 9717:2014](https://standards.iteh.ai/catalog/standards/sist/a8058391-7657-4ac1-bb0c-683cf28a04a/sist-en-iso-9717-2014)

<https://standards.iteh.ai/catalog/standards/sist/a8058391-7657-4ac1-bb0c-683cf28a04a/sist-en-iso-9717-2014>



Reference number
ISO 9717:2010(E)

© ISO 2010

ISO 9717:2010(E)

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 9717:2014](https://standards.iteh.ai/catalog/standards/sist/a8058391-7657-4ac1-bb0c-683cfa28a04a/sist-en-iso-9717-2014)

<https://standards.iteh.ai/catalog/standards/sist/a8058391-7657-4ac1-bb0c-683cfa28a04a/sist-en-iso-9717-2014>

**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2010

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction.....	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Information to be supplied by the purchaser to the processor.....	3
4.1 Essential information	3
4.2 Additional information	3
5 Designation	3
5.1 General	3
5.2 Designation specifications	4
5.3 Designation of heat treatment requirements.....	4
5.4 Classification of phosphate conversion coating	5
6 Requirements.....	6
6.1 Surface preparation.....	6
6.2 Phosphate conversion coating.....	6
6.3 Processing after phosphating.....	6
6.4 Thickness of coating.....	7
6.5 Stress-relief heat treatment before cleaning and phosphating.....	8
6.6 Hydrogen-embrittlement-relief heat treatment after phosphating	8
6.7 Treatments for supplementary coatings.....	8
6.8 Adhesion of phosphate conversion coatings	9
6.9 Quality-evaluation test of phosphate conversion coatings.....	9
7 Sampling	9
Annex A (informative) Methods of application, characteristics and significance of phosphate conversion coatings.....	10
Annex B (informative) Determination of rinse-water contamination	13
Annex C (informative) Identification of phosphate conversion coating	15
Annex D (normative) Salt droplet test	17
Annex E (normative) Determination of resistance of phosphate conversion coating to neutral salt spray (fog) test.....	20
Annex F (normative) Treatments for supplementary coating	22
Bibliography.....	23

ISO 9717:2010(E)**Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 9717 was prepared by Technical Committee ISO/TC 107, *Metallic and other inorganic coatings*, Subcommittee SC 8, *Chemical conversion coatings*.

This second edition cancels and replaces the first edition (ISO 9717:1990), which has been technically revised.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 9717:2014
<https://standards.iteh.ai/catalog/standards/sist/a8058391-7657-4ac1-bb0c-683cfa28a04a/sist-en-iso-9717-2014>

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.

<https://standards.iteh.ai/catalog/standards/sist/a8058391-7657-4ac1-bb0c-683cfa28a04a/sist-en-iso-9717-2014>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 9717:2014](#)

<https://standards.iteh.ai/catalog/standards/sist/a8058391-7657-4ac1-bb0c-683cfa28a04a/sist-en-iso-9717-2014>