



SLOVENSKI STANDARD
SIST EN ISO 17463:2014

01-oktober-2014

Barve in laki - Ugotavljanje protikorozijskih lastnosti organskih premazov s pospešeno ciklično elektrokemijsko tehniko (ACET) (ISO 17463:2014)

Paints and varnishes - Determination of the corrosion protection properties of organic coatings by the accelerated cyclic electrochemical technique (ACET) (ISO 17463:2014)

Beschichtungsstoffe - Richtlinie zur Bestimmung der antikorrosiven Eigenschaften organischer Beschichtungen durch beschleunigte zyklische elektrochemische Verfahren (ISO 17463:2014)

(standards.iteh.ai)

Peintures et vernis - Détermination des propriétés anticorrosives de revêtements organiques avec la technique électrochimique cyclique accélérée (ACET) (ISO 17463:2014)

Ta slovenski standard je istoveten z: EN ISO 17463:2014

ICS:

87.040

Barve in laki

Paints and varnishes

SIST EN ISO 17463:2014

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 17463:2014](#)

<https://standards.iteh.ai/catalog/standards/sist/d3046684-632f-4f6c-ba9c-1f604869da4c/sist-en-iso-17463-2014>

EUROPEAN STANDARD

EN ISO 17463

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2014

ICS 87.040

English Version

Paints and varnishes - Guidelines for the determination of anticorrosive properties of organic coatings by accelerated cyclic electrochemical technique (ISO 17463:2014)

Peintures et vernis - Lignes directrices pour la détermination des propriétés anticorrosives de revêtements organiques par une technique électrochimique cyclique accélérée (ISO 17463:2014)

Beschichtungsstoffe - Richtlinie zur Bestimmung der antikorrosiven Eigenschaften organischer Beschichtungen durch beschleunigte zyklische elektrochemische Verfahren (ISO 17463:2014)

This European Standard was approved by CEN on 11 July 2014.

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.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
Foreword.....	3

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 17463:2014
<https://standards.iteh.ai/catalog/standards/sist/d3046684-632f-4f6c-ba9c-1f604869da4c/sist-en-iso-17463-2014>

Foreword

This document (EN ISO 17463:2014) has been prepared by Technical Committee ISO/TC 35 "Paints and varnishes" in collaboration with Technical Committee CEN/TC 139 "Paints and varnishes" the secretariat of which is held by DIN.

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 February 2015, and conflicting national standards shall be withdrawn at the latest by February 2015.

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.

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.

Endorsement notice

The text of ISO 17463:2014 has been approved by CEN as EN ISO 17463:2014 without any modification.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 17463:2014](https://standards.iteh.ai/catalog/standards/sist/d3046684-632f-4f6c-ba9c-1f604869da4c/sist-en-iso-17463-2014)

<https://standards.iteh.ai/catalog/standards/sist/d3046684-632f-4f6c-ba9c-1f604869da4c/sist-en-iso-17463-2014>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 17463:2014](#)

<https://standards.iteh.ai/catalog/standards/sist/d3046684-632f-4f6c-ba9c-1f604869da4c/sist-en-iso-17463-2014>

INTERNATIONAL
STANDARD

ISO
17463

First edition
2014-08-01

**Paints and varnishes — Guidelines
for the determination of anticorrosive
properties of organic coatings by
accelerated cyclic electrochemical
technique**

*Peintures et vernis — Lignes directrices pour la détermination
des propriétés anticorrosives de revêtements organiques par une
technique électrochimique cyclique accélérée*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 17463:2014](https://standards.iteh.ai/catalog/standards/sist/d3046684-632f-4f6c-ba9c-1f604869da4c/sist-en-iso-17463-2014)

<https://standards.iteh.ai/catalog/standards/sist/d3046684-632f-4f6c-ba9c-1f604869da4c/sist-en-iso-17463-2014>



Reference number
ISO 17463:2014(E)

© ISO 2014

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 17463:2014

<https://standards.iteh.ai/catalog/standards/sist/d3046684-632f-4f6c-ba9c-1f604869da4c/sist-en-iso-17463-2014>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2014

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested 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	1
4 Principle	2
4.1 General.....	2
4.2 EIS measurement.....	3
4.3 Cathodic polarization.....	3
4.4 Potential relaxation.....	3
5 Apparatus	3
6 Specimens	3
6.1 Samples preparation.....	3
6.2 Environmental control.....	3
6.3 Number of specimens and repeatability of results.....	4
7 Procedure	4
7.1 EIS measurement.....	4
7.2 Cathodic polarization.....	4
7.3 Relaxation process.....	4
7.4 Number of cycles.....	4
8 Data presentation	5
8.1 Graphics for EIS.....	5
8.2 Graphics for the potential relaxation.....	5
9 Precision	5
10 Test report	5
Annex A (informative) Typical example of results from coatings	7
Bibliography	14

ISO 17463:2014(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.

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 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*.

[SIST EN ISO 17463:2014](https://standards.iteh.ai/catalog/standards/sist/d3046684-632f-4f6c-ba9c-1f604869da4c/sist-en-iso-17463-2014)

<https://standards.iteh.ai/catalog/standards/sist/d3046684-632f-4f6c-ba9c-1f604869da4c/sist-en-iso-17463-2014>

Introduction

This International Standard describes the determination of the anticorrosive properties of organic coatings by means of the accelerated cyclic electrochemical technique (ACET). The method is based on the so called AC/DC/AC procedure. This technique allows comparing the protective and anticorrosive properties of different coating systems on metal in short times and in a qualitative and quantitative way. ACET consists of the application of cycles of EIS (electrochemical impedance spectroscopy) measurements, cathodic polarizations and potential relaxation. Degradation of the coating system is accelerated by the cathodic polarization. EIS and potential relaxation monitor the change of the coating system induced by the cathodic polarization. The technique evaluates the permeability of the coating and properties which can be attributed to adhesion to the substrate.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 17463:2014](https://standards.iteh.ai/catalog/standards/sist/d3046684-632f-4f6c-ba9c-1f604869da4c/sist-en-iso-17463-2014)

<https://standards.iteh.ai/catalog/standards/sist/d3046684-632f-4f6c-ba9c-1f604869da4c/sist-en-iso-17463-2014>