

# SLOVENSKI STANDARD

## SIST EN ISO 8993:2010

01-oktober-2010

Nadomešča:

SIST EN 12373-18:2002

---

### Anodizacija aluminija in aluminijevih zlitin - Ocenjevalni sistem za vrednotenje jamičaste korozije - Tabelarična metoda (ISO 8993:2010)

Anodizing of aluminium and its alloys - Rating system for the evaluation of pitting corrosion - Chart method (ISO 8993:2010)

Anodisieren von Aluminium und Aluminiumlegierungen - Bewertungssystem für Lochkorrosion - Richtreihenmethode (ISO 8993:2010)

Anodisation de l'aluminium et de ses alliages - Système de cotation de la corrosion par piqûres - Méthode reposant sur des images-types (ISO 8993:2010)

**Ta slovenski standard je istoveten z: EN ISO 8993:2010**

---

#### **ICS:**

25.220.20	Površinska obdelava	Surface treatment
77.120.10	Aluminij in aluminijeve zlitine	Aluminium and aluminium alloys

**SIST EN ISO 8993:2010**

**en,fr**

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

SIST EN ISO 8993:2010

<https://standards.iteh.ai/catalog/standards/sist/c446c8f2-ae1e-41bb-8619-c986fea2df31/sist-en-iso-8993-2010>

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 8993**

August 2010

ICS 77.060; 25.220.20

Supersedes EN 12373-18:2001

English Version

## Anodizing of aluminium and its alloys - Rating system for the evaluation of pitting corrosion - Chart method (ISO 8993:2010)

Anodisation de l'aluminium et de ses alliages - Système de cotation de la corrosion par piqûres - Méthode reposant sur des images-types (ISO 8993:2010)

Anodisieren von Aluminium und Aluminiumlegierungen - Bewertungssystem für Lochkorrosion - Richtreihenmethode (ISO 8993:2010)

This European Standard was approved by CEN on 31 July 2010.

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 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 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

[SIST EN ISO 8993:2010](https://standards.iteh.ai/catalog/standards/sist/c446c8f2-ae1e-41bb-8619-c986fea2df31/sist-en-iso-8993-2010)

<https://standards.iteh.ai/catalog/standards/sist/c446c8f2-ae1e-41bb-8619-c986fea2df31/sist-en-iso-8993-2010>



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 8993:2010

<https://standards.iteh.ai/catalog/standards/sist/c446c8f2-ae1e-41bb-8619-c986fea2df31/sist-en-iso-8993-2010>

## Foreword

This document (EN ISO 8993:2010) has been prepared by Technical Committee ISO/TC 79 "Light metals and their alloys" in collaboration with Technical Committee CEN/TC 132 "Aluminium and aluminium alloys" the secretariat of which is held by AFNOR.

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 2011, and conflicting national standards shall be withdrawn at the latest by February 2011.

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 12373-18:2001.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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

The text of ISO 8993:2010 has been approved by CEN as a EN ISO 8993:2010 without any modification.

[SIST EN ISO 8993:2010](https://standards.iteh.ai/catalog/standards/sist/c446c8f2-ae1e-41bb-8619-c986fea2df31/sist-en-iso-8993-2010)

<https://standards.iteh.ai/catalog/standards/sist/c446c8f2-ae1e-41bb-8619-c986fea2df31/sist-en-iso-8993-2010>

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

SIST EN ISO 8993:2010

<https://standards.iteh.ai/catalog/standards/sist/c446c8f2-ae1e-41bb-8619-c986fea2df31/sist-en-iso-8993-2010>

# INTERNATIONAL STANDARD

**ISO**  
**8993**

Second edition  
2010-08-01

---

---

## Anodizing of aluminium and its alloys — Rating system for the evaluation of pitting corrosion — Chart method

*Anodisation de l'aluminium et de ses alliages — Système de cotation de  
la corrosion par piqûres — Méthode reposant sur des images-types*

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

[SIST EN ISO 8993:2010](https://standards.iteh.ai/catalog/standards/sist/c446c8f2-ae1e-41bb-8619-c986fea2df31/sist-en-iso-8993-2010)

[https://standards.iteh.ai/catalog/standards/sist/c446c8f2-ae1e-41bb-8619-  
c986fea2df31/sist-en-iso-8993-2010](https://standards.iteh.ai/catalog/standards/sist/c446c8f2-ae1e-41bb-8619-c986fea2df31/sist-en-iso-8993-2010)



Reference number  
ISO 8993:2010(E)

© ISO 2010

## ISO 8993:2010(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 8993:2010](https://standards.iteh.ai/catalog/standards/sist/c446c8f2-ae1e-41bb-8619-c986fea2df31/sist-en-iso-8993-2010)

<https://standards.iteh.ai/catalog/standards/sist/c446c8f2-ae1e-41bb-8619-c986fea2df31/sist-en-iso-8993-2010>

**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](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland



**Contents**

Page

Foreword .....	iv
1 Scope .....	1
2 Terms and definitions .....	1
3 Procedure for rating .....	2
3.1 Sample preparation .....	2
3.2 Determination of chart rating .....	2
4 Expression of results .....	3
5 Test report .....	3
Bibliography .....	11

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

SIST EN ISO 8993:2010

<https://standards.iteh.ai/catalog/standards/sist/c446c8f2-ae1e-41bb-8619-c986fea2df31/sist-en-iso-8993-2010>

## ISO 8993:2010(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 8993 was prepared by Technical Committee ISO/TC 79, *Light metals and their alloys*, Subcommittee SC 2, *Organic and anodic oxidation coatings on aluminium*.

This second edition cancels and replaces the first edition (ISO 8993:1989), which has been technically revised.

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

SIST EN ISO 8993:2010

<https://standards.iteh.ai/catalog/standards/sist/c446c8f2-ae1e-41bb-8619-c986fea2df31/sist-en-iso-8993-2010>

# Anodizing of aluminium and its alloys — Rating system for the evaluation of pitting corrosion — Chart method

## 1 Scope

This International Standard specifies a chart rating system based on standard charts that provides a means of defining levels of performance of anodic oxidation coatings on aluminium and its alloys that have been subjected to corrosion tests.

This rating system is applicable to pitting corrosion resulting from

- accelerated tests,
- exposure to corrosive environments, and
- practical service tests.

This International Standard takes into account only pitting corrosion resulting from penetration of the protective anodic oxidation coating.

NOTE ISO 8994<sup>[3]</sup> describes a similar rating system based on defined grids.

<https://standards.iteh.ai/catalog/standards/sist/c446c8f2-ae1e-41bb-8619-c986fea2df31/sist-en-iso-8993-2010>

## 2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 2.1

#### significant surface

part of the article covered or to be covered by the coating, for which the coating is essential for serviceability and/or appearance

NOTE 1 Adapted from ISO 2064:1996<sup>[1]</sup>, definition 3.1.

NOTE 2 The edges of an article are not normally included in the significant surface.

### 2.2

#### corrosion pit

surface corrosion defect at which the anodic oxidation coating is penetrated

NOTE Discoloration or other surface defects which do not penetrate the anodic coating do not count as corrosion pits.