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Korozija kovin in zlitin - Slovar (ISO 8044:2020)

Corrosion of metals and alloys - Vocabulary (ISO 8044:2020)

Korrosion von Metallen und Legierungen - Grundbegriffe (ISO 8044:2020)

Corrosion des métaux et alliages - Vocabulaire (ISO 8044:2020)

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Korrosion von Metallen und Legierungen - Grundbegriffe (ISO 8044:2020)

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Contents

Page

European foreword **3**

European foreword

This document (EN ISO 8044:2020) has been prepared by Technical Committee ISO/TC 156 "Corrosion of metals and alloys" in collaboration with Technical Committee CEN/TC 262 “Metallic and other inorganic coatings, including for corrosion protection and corrosion testing of metals and alloys” 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of an identical text or by endorsement, at the latest by August 2020, and conflicting national standards shall be withdrawn at the latest by August 2020.

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

This document supersedes EN ISO 8044:2015.

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The text of ISO 8044:2020 has been approved by CEN as EN ISO 8044:2020 without any modification.

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Contents

Page

Foreword ..... **iv**
Introduction ..... **v**
1 Scope **1**
2 Normative references **1**
3 Terms related to corrosion in general **1**
4 Terms related to types of corrosion **4**
5 Terms related to corrosion protection **9**
6 Terms related to corrosion testing **11**
7 Terms related to electrochemical matters **12**
7.1 The electrochemical cell 12
7.2 Reaction rates 16
7.3 Passivation 17
7.4 Electrochemical protection 19
7.5 Electrochemical corrosion tests 20
Annex A (informative) **Graphical representations of certain terms** **22**
Bibliography **24**
Index **25**

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).

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

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 156, *Corrosion of metals and alloys*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 262, *Metallic and other inorganic coatings, including for corrosion protection and corrosion testing of metals and alloys*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fifth edition cancels and replaces the fourth edition (ISO 8044:2015), which has been technically revised to include additional terms and definitions.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

The definitions in this document have been drawn up with the objective of achieving a proper balance between precision and simplicity. The main objective of this document is to provide definitions that can be understood to have the same meaning by all concerned. Some corrosion terms in present use have developed through common usage and are not always logical. It has not, therefore, been possible to define certain terms in the form they are used in some countries. Because of the occasional conflicts between tradition and logic, some definitions inevitably represent a compromise.

An example of this kind of conflict is the term “corrosion”. This has been used to mean the process, results of the process and damage caused by the process. In this document, corrosion is understood to mean the process. Any detectable result of corrosion in any part of a corrosion system is termed “corrosion effect”. The term “corrosion damage” covers any impairment of the function of the technical system of which the metal and the environment form a part. Consequently, the term “corrosion protection” implies that the important thing is to avoid corrosion damage rather than to prevent corrosion, which in many cases is impossible and sometimes not necessary.

Corrosion of metals and alloys — Vocabulary

1 Scope

This document defines terms relating to corrosion that are widely used in modern science and technology. In addition, some definitions are supplemented with short explanations.

NOTE 1 Throughout the document, IUPAC rules for electrode potential signs are applied. The term “metal” is also used to include alloys and other metallic materials.

NOTE 2 Terms and definitions related to the inorganic surface treatment of metals are given in ISO 2080.

2 Normative references

There are no normative references in this document.

3 Terms related to corrosion in general

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
corrosion
physicochemical interaction between a metallic material and its environment that results in changes in the properties of the metal, and that may lead to significant impairment of the function of the metal, the environment or the technical system, of which these form a part

Note 1 to entry: This interaction is often of an electrochemical nature.

3.2
corrosive agent
substance that will initiate or promote *corrosion* (3.1) when in contact with a given metal

3.3
corrosive environment
environment that contains one or more *corrosive agents* (3.2)

3.4
corrosion system
system consisting of one or more metals and those parts of the environment that influence *corrosion* (3.1)

Note 1 to entry: Parts of the environment may be, for example, coatings, surface layers or additional *electrodes* (7.1.2).

3.5
corrosion effect
change in any part of the *corrosion system* (3.4) caused by *corrosion* (3.1)

3.6
corrosion damage
corrosion effect (3.5) that causes impairment of the function of the metal, the environment or the technical system, of which these form a part