SLOVENSKI STANDARD
SIST EN ISO 8565:1999

01-oktober-1999

Kovine in zlitine - Atmosferski korozijski preskusi - Splošne zahteve za preskušanje v naravi (ISO 8565:1992)

Metals and alloys - Atmospheric corrosion testing - General requirements for field tests (ISO 8565:1992)

Metalle und Legierungen - Korrosionsversuche in der Atmosphäre - Allgemeine Anforderungen an Freibewitterungsversuche (ISO 8565:1992)

Métaux et alliages - Essais de corrosion atmosphérique - Prescriptions générales de l'essai in situ (ISO 8565:1992)

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English version

Metals and alloys - Atmospheric corrosion testing - General requirements for field tests (ISO 8565:1992)

Métaux et alliages - Essais de corrosion atmosphérique - Prescriptions générales de l'essai in situ (ISO 8565:1992)

Metalle und Legierungen - Korrosionsversuche in der Atmosphäre - Allgemeine Anforderungen an Freibewitterungsversuche (ISO 8565:1992)

This European Standard was approved by CEN on 1994-10-03. 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.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart,36 B-1050 Brussels

Foreword

This European Standard has been taken over by the Technical Committee CEN/TC 262 "Protection of metallic materials against corrosion" from the work of ISO/TC 107 "Metallic and other inorganic coatings" of the International Organization for Standardization (ISO).

This document was submitted to the formal vote and was adopted by CEN as a European Standard.

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of an identical text or by endorsement, at the latest by July 1995, and conflicting national standards shall be withdrawn at the latest by July 1995.

In accordance with the CEN/CENELEC Internal Regulations, following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

Endorsement notice

The text of the International Standard ISO 8565:1992 has been approved by CEN as a European Standard without any modification.

INTERNATIONAL STANDARD

ISO 8565

First edition
1992-02-01

Metals and alloys — Atmospheric corrosion testing — General requirements for field tests

Métaux et alliages — Essais de corrosion atmosphérique — Prescriptions générales de l'essai in situ

Reference number
ISO 8565:1992(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.

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.

International Standard ISO 8565 was prepared by Technical Committee ISO/TC 156, *Corrosion of metals and alloys*.

It cancels and replaces ISO 4542:1981, *Metallic and other non-organic coatings — General rules for stationary outdoor exposure corrosion tests*.

Annex A forms an integral part of this International Standard.

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Introduction

Corrosion testing under atmospheric exposure conditions is carried out in order to

— obtain data on the corrosion resistance of metals, alloys[1] and other inorganic metallic coatings[1] in atmospheric environments;

— evaluate the relationship between the results under given laboratory conditions and in an atmospheric environment;

— evaluate the type of corrosion of particular metals.

It involves exposure of the specimens to the action of atmospheric environments at the test sites and periodic checking of the test specimens. It does not cover service corrosion testing.

The corrosion rate of the specified metal depends on the environment of the atmospheric corrosion test site. The relationship between corrosion rates for metals and atmospheric variables is complex. Therefore the results of field tests cannot be used to predict service performance exactly, but do provide an approximate guidance to service performance.

1) Hereinafter referred to as "metals".

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Metals and alloys — Atmospheric corrosion testing — General requirements for field tests

1 Scope

This International Standard establishes general requirements for stationary corrosion testing of metals and metallic coatings under atmospheric conditions carried out in the open air or under shelters.

It may also be applied for indoor testing.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 4221:1980, *Air quality — Determination of mass concentration of sulphur dioxide in ambient air — Thorin spectrophotometric method.*

ISO 4226:1980, *Air quality — General aspects — Units of measurement.*

ISO 4540:1980, *Metallic coatings — Coatings cathodic to the substrate — Rating of electroplated test specimens subjected to corrosion tests.*

ISO 4543:1981, *Metallic and other non-organic coatings — General rules for corrosion tests applicable for storage conditions.*

ISO 6879:1983, *Air quality — Performance characteristics and related concepts for air quality measuring methods.*

ISO 8403:1991, *Metallic coatings — Coatings anodic to the substrate — Rating of test specimens subjected to corrosion tests.*

ISO 8407:1991, *Corrosion of metals and alloys — Removal of corrosion products from corrosion test specimens.*

ISO 9225:—[2], *Corrosion of metals and alloys — Corrosivity of atmospheres — Measurement of pollution.*

ISO 9226:—[2], *Corrosion of metals and alloys — Corrosivity of atmospheres — Determination of corrosion rate of standard specimens for the evaluation of corrosivity.*

3 Requirements for test specimens

3.1 Types of specimen

3.1.1 Flat sheet specimens

Rectangular specimens in the form of flat sheets are the preferred type as they can be readily weighed and measured and their simple shape facilitates attachment to test frames. A convenient specimen size is 150 mm × 100 mm. Specimens may be larger provided that they can be accurately evaluated. The specimen thickness shall be adequate to ensure that the specimens will survive the intended test period. The specimen thickness shall also take into account the possibility of mechanical effects and of intergranular corrosion in some materials. The most convenient thickness is 1 mm to 3 mm.

For specimens with metallic coatings the surface area of the test specimens should be as large as possible, in any case not less than 50 cm^2 (5 cm × 10 cm). If the coated articles used are smaller than 50 cm^2 in area, specimens of the same kind may be combined to total the required mini-

2) To be published.