INTERNATIONAL STANDARD

ISO 11844-3

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Corrosion of metals and alloys — Classification of low corrosivity of indoor atmospheres —

Part 3: Measurement of environmental parameters affecting indoor corrosivity

Corrosion des métaux et alliages — Classification de la corrosivité faible des atmosphères d'intérieur —

Partie 3: Mesurage des paramètres environnementaux affectant la corrosivité des atmosphères d'intérieur

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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 11844-3 was prepared by Technical Committee ISO/TC 156, *Corrosion of metals and alloys*.

ISO 11844 consists of the following parts, under the general title *Corrosion of metals and alloys — Classification of low corrosivity of indoor atmospheres*:

— *Part 1: Determination and estimation of indoor corrosivity*

— *Part 2: Determination of corrosion attack in indoor atmospheres*

— *Part 3: Measurement of environmental parameters affecting indoor corrosivity*

Introduction

This part of ISO 11844 deals with environmental parameters for the characterisation of indoor atmospheres and methods of measurement.

The environmental parameters for the characterisation of indoor atmospheres include more airborne contaminants than are normally used for the characterisation of the outdoor environment.

Measurement of environmental parameters is a way of characterising the corrosivity of the indoor atmosphere and will always be required if it is necessary to consider measures for reducing the corrosivity.

Corrosion of metals and alloys — Classification of low corrosivity of indoor atmospheres —

Part 3: Measurement of environmental parameters affecting indoor corrosivity

1 Scope

This part of ISO 11844 describes methods for measuring the environmental parameters used to classify the corrosivity of indoor atmospheres on metals and alloys.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 7708:1995, *Air quality — Particle size fraction definitions for health-related sampling*

ISO 9225:1992, *Corrosion of metals and alloys — Corrosivity of atmospheres — Measurement of pollution*

ISO 11844-1, *Corrosion of metals and alloys — Classification of low corrosivity of indoor atmospheres — Part 1: Determination and estimation of indoor corrosivity*

EN 12341:1998, *Air quality — Determination of the PM_{10} fraction of suspended particulate matter — Reference method and field test procedure to demonstrate reference equivalence of measurement methods*

3 Principle

Different combinations of parameters affect the corrosivity of indoor atmospheres. Knowledge about possible sources of environmental effects must be obtained before decisions regarding the type of measurements needed are taken. The characterisation of indoor atmospheric corrosivity using environmental parameters is more complicated than measuring the corrosivity with metal specimens. However, in many cases, measurement of environmental parameters can give a good indication of how to establish the corrosivity of an environment and will, in combination with the information given in ISO 11844-1, give a good indication of the corrosivity categories for the materials in the selected environment.