



NSAI
Standards

Irish Standard
I.S. EN ISO 11844-2:2020

Corrosion of metals and alloys -
Classification of low corrosivity of indoor
atmospheres - Part 2: Determination of
corrosion attack in indoor atmospheres
(ISO 11844-2:2020)

I.S. EN ISO 11844-2:2020

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

EN ISO 11844-2:2020

Published:

2020-06-10

*This document was published
under the authority of the NSAI
and comes into effect on:*

2020-06-28

ICS number:

77.060

NOTE: If blank see CEN/CENELEC cover page

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN ISO 11844-2:2020 is the adopted Irish version of the European Document EN ISO 11844-2:2020, Corrosion of metals and alloys - Classification of low corrosivity of indoor atmospheres - Part 2: Determination of corrosion attack in indoor atmospheres (ISO 11844-2:2020)

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

For relationships with other publications refer to the NSAI web store.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This page is intentionally left blank

EUROPEAN STANDARD

EN ISO 11844-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2020

ICS 77.060

Supersedes EN ISO 11844-2:2008

English Version

**Corrosion of metals and alloys - Classification of low
corrosivity of indoor atmospheres - Part 2: Determination
of corrosion attack in indoor atmospheres (ISO 11844-
2:2020)**

Corrosion des métaux et alliages - Classification de la
corrosivité faible des atmosphères d'intérieur - Partie
2: Détermination de l'attaque par corrosion dans les
atmosphères d'intérieur (ISO 11844-2:2020)

Korrosion von Metallen und Legierungen - Einteilung
der Korrosivität in Räumen mit geringer Korrosivität -
Teil 2: Bestimmung der korrosiven Belastung in
Räumen (ISO 11844-2:2020)

This European Standard was approved by CEN on 26 April 2020.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, 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: Rue de la Science 23, B-1040 Brussels

EN ISO 11844-2:2020 (E)

Contents

Page

European foreword.....	3
-------------------------------	----------

European foreword

This document (EN ISO 11844-2:2020) 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 December 2020, and conflicting national standards shall be withdrawn at the latest by December 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 11844-2:2008.

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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 11844-2:2020 has been approved by CEN as EN ISO 11844-2:2020 without any modification.

This page is intentionally left blank

INTERNATIONAL STANDARD

**ISO
11844-2**

First edition
2005-12-15

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

Part 2: Determination of corrosion attack in indoor atmospheres

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

*Partie 2: Détermination de l'attaque par corrosion dans les atmosphères
d'intérieur*



Reference number
ISO 11844-2:2005(E)

© ISO 2005

ISO 11844-2:2005(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.

© ISO 2005

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
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Principle	1
4 Methods	1
Annex A (normative) Determination of corrosion rate by mass change measurement	4
Annex B (normative) Determination of corrosion rate by electrolytic cathodic reduction	7
Annex C (informative) Determination of corrosion rate by resistance measurements	9
Bibliography	11

ISO 11844-2:2005(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.

ISO 11844-2 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 describes standard specimens, their exposure and evaluation for the derivation of the indoor corrosivity categories.

The determination of the corrosion attack is, at the present state of knowledge, the most reliable way, and usually also an economical way, for evaluation of corrosivity taking into account all main local environmental influences.

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

Part 2: Determination of corrosion attack in indoor atmospheres

1 Scope

This part of ISO 11844 specifies methods for determination of corrosion rate with standard specimens of metals in indoor atmospheres with low corrosivity. For this direct method of evaluation of corrosivity, different sensitive methods can be applied using standard specimens of the following metals: copper, silver, zinc and steel. The values obtained from the measurements are used as classification criteria for the determination of indoor atmospheric corrosivity.

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.

IEC 60654-4:1987, *Operating conditions for industrial-process measurement and control equipment — Part 4: Corrosive and erosive influences*

ANSI/ISA-S71.04:1985, *Environmental conditions for Process, Measurement and Control Systems: Airborne Contaminants*

3 Principle

The corrosivity of the indoor location, e.g. control rooms, electric boxes, storage rooms, during transportation, in museums, etc., is determined from the corrosion rate calculated from the mass change or resistance change per unit area of standard specimens of metals after exposure for a certain time period. Different materials are sensitive to different environmental parameters or their combinations.

4 Methods

The following methods described in Annexes A and B are available for evaluation of the corrosion attack:

- Determination of corrosion rate by mass change measurements (Annex A)
- Determination of corrosion rate by electrolytic cathodic reduction (Annex B)

The method described in informative Annex C is suitable for continuous or periodic monitoring of the corrosion attack:

- Determination of corrosion rate by resistance measurements (Annex C)

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-