

Corrosion tests in artificial atmospheres — Salt spray tests

The European Standard EN ISO 9227:2006 has the status of a
British Standard

ICS 77.060

National foreword

This British Standard is the official English language version of EN ISO 9227:2006. It is identical with ISO 9227:2006. It supersedes BS 7479:1991 and BS EN ISO 7253:2001 which are withdrawn.

The UK participation in its preparation was entrusted to Technical Committee ISE/NFE/8, Corrosion of metals and alloys, which has the responsibility to:

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Summary of pages

This document comprises a front cover, an inside front cover, the EN ISO title page, the EN ISO foreword page, the ISO title page, pages ii to v, pages 1 to 20, an inside back cover and a back cover.

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This European Standard was approved by CEN on 7 July 2006.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

Foreword

This document (EN ISO 9227:2006) has been prepared by Technical Committee ISO/TC 35 "Paints and varnishes" in collaboration with Technical Committee CEN/TC 139 "Paints and varnishes", the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by January 2007, and conflicting national standards shall be withdrawn at the latest by January 2007.

This document supersedes EN ISO 7253:2001.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, 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.

Endorsement notice

The text of ISO 9227:2006 has been approved by CEN as EN ISO 9227:2006 without any modifications.

INTERNATIONAL STANDARD

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Corrosion tests in artificial atmospheres — Salt spray tests

*Essais de corrosion en atmosphères artificielles — Essais aux
brouillards salins*



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Contents

Page

Foreword.....	iv
Introduction	v
1 Scope	1
2 Normative references	2
3 Test solutions.....	2
3.1 Preparation of the sodium chloride solution	2
3.2 pH adjustment	2
3.3 Filtration.....	3
4 Apparatus	3
4.1 Component protection	3
4.2 Spray cabinet	3
4.3 Heater and temperature control	3
4.4 Spraying device	4
4.5 Collecting devices	4
4.6 Re- use	5
5 Method of evaluation of the corrosivity of the cabinet	5
5.1 General.....	5
5.2 NSS test	5
5.3 AASS test.....	6
5.4 CASS test.....	7
6 Test specimens	9
7 Arrangement of the test specimens.....	9
8 Operating conditions.....	10
9 Duration of tests	10
10 Treatment of specimens after test	11
11 Evaluation of results.....	11
12 Test report	11
Annex A (informative) Schematic diagram of one possible design of spray cabinet with means for treating fog exhaust and drain	13
Annex B (informative) Complementary method for evaluation of the corrosivity of the cabinet by use of zinc reference specimens	15
Annex C (normative) Preparation of panels with organic coatings for testing	17
Annex D (normative) Required supplementary information for testing test panels with organic coatings	18
Bibliography	19

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.

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ISO 9227 was prepared by Technical Committee ISO/TC 156, *Corrosion of metals and alloys*, in collaboration with ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*, and ISO/TC 107, *Metallic and other inorganic coatings*, Subcommittee SC 7, *Corrosion tests*.

This second edition cancels and replaces the first edition (ISO 9227:1990) and ISO 7253:1996, which have been technically revised.

Introduction

There is seldom a direct relation between resistance to the action of salt spray and resistance to corrosion in other media, because several factors influencing the progress of corrosion, such as the formation of protective films, vary greatly with the conditions encountered. Therefore, the test results should not be regarded as a direct guide to the corrosion resistance of the tested metallic materials, in all environments where these materials may be used. Also, the performance of different materials, during the test should not be taken as a direct guide to the corrosion resistance of these materials in service.

Nevertheless, the method described gives a means of checking that the comparative quality of a metallic material, with or without corrosion protection, is maintained.

Salt spray tests are generally suitable as corrosion protection tests for rapid analysis for discontinuities, pores and damage in organic and inorganic coatings. In addition, for quality control purposes, comparison can be made between specimens coated with the same coating. As comparative tests, however, salt spray tests are only suitable if the coatings are sufficiently similar in nature.

It is often not possible to use results gained from salt spray testing as a comparative guide to the long-term behaviour of different coating systems, as the corrosion stress during these tests differs significantly from the corrosion stresses encountered in practice.

