

Corrosion of metals and alloys — Accelerated cyclic tests with exposure to acidified salt spray, “dry” and “wet” conditions

ICS 77.060

National foreword

This British Standard is the UK implementation of EN ISO 16151:2008. It is identical with ISO 16151:2005. It supersedes BS ISO 16151:2005, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee ISE/NFE/8, Corrosion of metals and alloys.

A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

Corrosion of metals and alloys - Accelerated cyclic tests with
exposure to acidified salt spray, "dry" and "wet" conditions (ISO
16151:2005)

Corrosion des métaux et alliages - Essais cycliques
accélérés avec exposition au brouillard salin acidifié, en
conditions "sèches" et en conditions "humides" (ISO
16151:2005)

Korrosion von Metallen und Legierungen -
Schnellprüfungen unter wechselnder Einwirkung von
saurem Salzsprühnebel, "trockenen" und "feuchten"
Bedingungen (ISO 16151:2007)

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Foreword

The text of ISO 16151:2005 has been prepared by Technical Committee ISO/TC 156 “Corrosion of metals and alloys” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 16151:2008 by Technical Committee CEN/TC 262 “Metallic and other inorganic coatings” 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of an identical text or by endorsement, at the latest by October 2008, and conflicting national standards shall be withdrawn at the latest by October 2008.

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Endorsement notice

The text of ISO 16151:2005 has been approved by CEN as a EN ISO 16151:2008 without any modification.

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Introduction

Corrosion of metallic materials, with or without corrosion protection, is influenced by many environmental factors, the importance of which may vary with the type of metallic material and with the type of environment. It is impossible, therefore, to design accelerated laboratory corrosion tests in such a way that all environmental factors influencing resistance to corrosion are taken into account. Laboratory tests are, therefore, designed to simulate the effects of the most important factors, which enhance the corrosion of metallic materials.

The accelerated corrosion-test methods described in this International Standard are designed to simulate and enhance the environmental influence on a metallic material to outdoor climates, where exposure to acid rain and to salt-contaminated conditions occur and may promote corrosion. It has been prepared by reference to technical papers and reports (see the Bibliography).

The test methods involve cyclic exposure of test specimens to a mist of acidified-salt solution, to drying conditions, and to periods of high humidity. However, the methods are mainly intended for comparative testing and the results obtained do not permit far-reaching conclusions on the corrosion resistance of the tested metallic material under the whole range of environmental conditions in which they may be used. Nevertheless, the methods provide valuable information on the relative performance of materials exposed to salt/acid rain environments similar to those employed in the test.

