

Corrosion of metals and alloys — Evaluation of stress corrosion cracking by the drop evaporation test

ICS 77.060

National foreword

This British Standard is the UK implementation of EN ISO 15324:2008. It is identical with ISO 15324:2000. It supersedes BS ISO 15324:2000, which is withdrawn.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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Amendments/corrigenda issued since publication

Date	Comments
30 June 2008	This corrigendum renumbers BS ISO 15324:2000 as BS EN ISO 15324:2008

English Version

Corrosion of metals and alloys - Evaluation of stress corrosion
cracking by the drop evaporation test (ISO 15324:2000)

Corrosion des métaux et alliages - Évaluation de la
résistance à la fissuration par corrosion sous contrainte par
essai d'évaporation goutte à goutte (ISO 15324:2000)

Korrosion von Metallen und Legierungen - Bewertung der
Spannungsrissskorrosion mit der Tropfen-
Verdampfungsprüfung (ISO 15324:2000)

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Foreword

The text of ISO 15324:2000 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 15324:2008 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of an identical text or by endorsement, at the latest by October 2008, and conflicting national standards shall be withdrawn at the latest by October 2008.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 15324:2000 has been approved by CEN as a EN ISO 15324:2008 without any modification.

Corrosion of metals and alloys — Evaluation of stress corrosion cracking by the drop evaporation test

1 Scope

1.1 This International Standard specifies the procedure for determining the relative resistance of stainless steels and nickel-base alloys to stress corrosion cracking in a sodium chloride drop evaporation system.

1.2 The method results in a threshold stress to fracture, the magnitude of which can be used to rank the relative performance of different alloys for this environment.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods*.

ISO 4287:1997, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters*.

ISO 4288:1996, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Rules and procedures for the assessment of surface texture*.

ISO 7539-1:1987, *Corrosion of metals and alloys — Stress corrosion testing — Part 1: General guidance on testing procedures*.

3 Terms and definitions

For the purposes of this International Standard, the following terms and definitions apply.

3.1

threshold stress

stress below which no fracture in 500 h is observed (see also 8.8)

3.2

time-to-fracture

elapsed time from start of test until fracture of the specimen

4 Principle

4.1 A dilute salt solution is dripped on to a heated tensile specimen of the material under test which is held horizontally and subjected to a uniaxial load.

4.2 Tests are carried out at different applied stresses and the time to specimen fracture is recorded. A threshold stress is defined based on the principle of no observed fracture in 500 h.