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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60068-2-60

January 1996

ICS 19.040

Descriptors: Electricity, component, electrotechnical product, environment testing, atmospheric corrosion, corrosive gaz

English version

Environmental testing - Part 2: Tests
Test Ke: Flowing mixed gas corrosion test
(IEC 68-2-60:1995)

Essais d'environnement
Partie 2: Essais
Essai Ke: Essais de corrosion dans un
flux de mélange de gaz
(CEI 68-2-60:1995)

Umweltprüfungen - Teil 2: Prüfungen
Prüfung Ke: Korrosionsprüfung mit
strömendem Mischgas
(IEC 68-2-60:1995)

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This European Standard was approved by CENELEC on 1995-11-28. CENELEC 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 Central Secretariat or to any CENELEC 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 CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 50B/359/DIS, future edition 2 of IEC 68-2-60, prepared by SC 50B, Climatic tests, of IEC TC 50, Environmental testing, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60068-2-60 on 1995-11-28.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 1996-09-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 1996-09-01

Annexes designated "normative" are part of the body of the standard.
Annexes designated "informative" are given for information only.
In this standard, annexes A and ZA are normative and annexes B and C are informative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 68-2-60:1995 was approved by CENELEC as a European Standard without any modification.

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Annex ZA (normative)**Normative references to international publications
with their corresponding European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE: When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 512-2	1985	Electromechanical components for electronic equipment; basic testing procedures and measuring methods Part 2: General examination, electrical continuity and contact resistance tests, insulation tests and voltage stress tests	-	-
ISO 431	1981	Copper refinery shapes	-	-

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NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC
68-2-60

Deuxième édition
Second edition
1995-12

PUBLICATION FONDAMENTALE DE SÉCURITÉ
BASIC SAFETY PUBLICATION

Essais d'environnement –

Partie 2:

Essais – Essai Ke: Essais de corrosion
dans un flux de mélange de gaz

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Environmental testing –

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Part 2:
Tests – Test Ke: Flowing mixed gas
corrosion test

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International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ENVIRONMENTAL TESTING –

Part 2 : Tests –
Test Ke : Flowing mixed gas corrosion test

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters, express as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 68-2-60 has been prepared by sub-committee 50B : Climatic tests, of IEC technical committee 50: Environmental testing.

This second edition cancels and replaces IEC 68-2-60 (TTD) (1990) and constitutes a technical revision.

The text of this standard is based on IEC 68-2-60 (TTD) (1990) and the following documents:

FDIS	Report on voting
50B/359/FDIS	50B/372/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

It has the status of a basic safety publication in accordance with IEC Guide 104.

IEC 68 consists of the following parts, under the general title: Environmental testing:

- Part 1 : General and guidance
- Part 2 : Tests
- Part 3 : Background information
- Part 4 : Information for specific writers – Test summaries
- Part 5 : Guide to drafting of test methods

Annex A forms an integral part of this standard.

Annexes B and C are for information only.

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ENVIRONMENTAL TESTING –

Part 2 : Tests – Test Ke : Flowing mixed gas corrosion test

1 General

1.1 Scope

This part of IEC 68-2 determines the corrosive influence of operating and storage indoor environments on electrotechnical products components, equipment and materials, particularly contacts and connections, considered separately, integrated into a subassembly or assembled as a complete equipment.

It provides test methods giving information, on a comparative basis, to aid the selection of materials, choice of production processes and component design, with regard to corrosion resistance. A guide to the selection of methods and test duration is provided in annex C.

1.2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 68-2. At the time of publication, the editions indicated were valid. All normative documents are subject to revision and parties to agreements based on this part of IEC 68-2 are encouraged to investigate the possibility of applying the most recent editions of the normative documents listed below. Members of IEC and ISO maintain registers of current valid International Standards.

IEC 512-2: 1985, *Electromechanical components for electronic equipment; basic testing procedures and measuring methods – Part 2: General examination, electrical continuity and contact resistance tests, insulation tests and voltage stress tests*

ISO 431: 1981, *Copper refinery shapes*

2 Test apparatus

The test apparatus consists of a climatic system, test enclosure, gas delivery system and means for measuring gas concentration.

Details of design and construction are optional but shall be such that the conditions specified for each method are fulfilled throughout the working volume and shall comply with the following requirements:

- water droplets or aerosols shall not be injected into the test enclosure;
- air and water used shall be sufficiently clean in order not to affect performance of the test;