



BSI Standards Publication

## Environmental testing

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Part 2-74: Tests - Test Xc: Fluid contamination (IEC 60068-2-74:1999)

## National foreword

This British Standard is the UK implementation of EN 60068-2-74:1999+A1:2018. It is identical to IEC 60068-2-74:1999+A1:2018. It supersedes BS EN 60068-2-74:2000, which will be withdrawn on 30 May 2021.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to IEC text carry the number of the IEC amendment. For example, text altered by IEC amendment 1 is indicated by  $\text{A}_1$   $\text{A}_1$ .

The UK participation in its preparation was entrusted to Technical Committee GEL/104, Environmental conditions, classification and testing.

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

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

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**Compliance with a British Standard cannot confer immunity from legal obligations.**

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### Amendments/corrigenda issued since publication

Date	Text affected
30 September 2018	Implementation of IEC amendment 1:2018 with CENELEC endorsement A1:2018

EUROPEAN STANDARD

**EN 60068-2-74+A1:2018**

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 1999

ICS 19.040

English version

**Environmental testing**  
**Part 2: Tests - Test Xc: Fluid contamination**  
(IEC 60068-2-74:1999)

Essais d'environnement  
Partie 2: Essais - Essai Xc:  
Contamination par des fluides  
(CEI 60068-2-74:1999)

Umweltprüfungen  
Teil 2: Prüfverfahren - Prüfung Xc:  
Verunreinigung durch Flüssigkeiten  
(IEC 60068-2-74:1999)

This European Standard was approved by CENELEC on 1999-10-01. 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, Czech Republic, 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**

EN 60068-2-74:1999+A1:2018

### **European foreword**

The text of document 104/124/FDIS, future edition 1 of IEC 60068-2-74, prepared by IEC TC 104 Environmental conditions, classification and methods of test, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60068-2-74 on 1999-10-01.

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) 2000-07-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2002-10-01

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### **Endorsement notice**

The text of the International Standard IEC 60068-2-74:1999 was approved by CENELEC as a European Standard without any modification.

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## Foreword to amendment A1

The text of document 104/739/CDV, future edition 1 of IEC 60068-2-74:1999/A1, prepared by IEC/TC 104 "Environmental conditions, classification and methods of test" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60068-2-74:1999/A1:2018.

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- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2019-02-28
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2021-05-30

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

## Endorsement notice

The text of the International Standard IEC 60068-2-74:1999/A1:2018 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60068-2-52:2017      NOTE      Harmonized as EN IEC 60068-2-52:2018 (not modified).

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

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 1817	2015	Rubber, vulcanized or thermoplastic Determination of the effect of liquids	--	-

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**ENVIRONMENTAL TESTING –****Part 2: Tests –  
Test Xc: Fluid contamination**

## FOREWORD

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International Standard IEC 60068-2-74 has been prepared by IEC technical committee 104: Environmental conditions, classification and methods of test\*.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 3.

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

Annex A is for information only.



The committee has decided that the contents of the base publication and its amendment will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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\* IEC technical committee 50: Environmental testing, has been transformed into IEC technical committee 104.

## ENVIRONMENTAL TESTING –

### Part 2: Tests – Test Xc: Fluid contamination

#### 1 Scope

This part of IEC 60068 gives a method of test which provides a standard procedure to determine the ability of components, equipments or their constituent materials, hereinafter referred to as specimen, to withstand accidental contact with fluids, without being unacceptably affected.

The fluids listed in this part of IEC 60068 are representative of those commonly encountered in operational applications. It is not intended that a specimen should be exposed to all, or even any of them. Nor is the list intended to be complete; fluids not listed and for which a test is appropriate should be included in the relevant specification. Guidance is given in annex A on the choice of test fluids, specimens and severities.

These tests are not intended to demonstrate the suitability of components or equipments to perform in continuous contact with a fluid, e.g. an immersed fuel pump. Nor are they a test to demonstrate immunity from electrolytic corrosion.

#### 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 60068. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 60068 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 IEC and ISO maintain registers of currently valid International Standards.

Ⓐ<sub>1</sub> ISO 1817:2015, *Rubber, vulcanized or thermoplastic – Determination of the effect of liquids* Ⓐ<sub>1</sub>

#### 3 Test fluid

##### 3.1 Specification of test fluid

The relevant specification (see Clause 12) shall specify the required test fluids which shall wherever possible be selected from the list given in Table 1. Each fluid has been specified as being representative of a group of fluids. (See Clause A.2.) Ⓐ<sub>1</sub> The actual composition of some of the fluids specified in Table 1 are provided for information in Table 2 and Table 3. Ⓐ<sub>1</sub>

The relevant specification shall also specify any additional fluids not listed in Table 1 for which a test is required.

##### 3.2 Precaution

Since many fluids may have flash points within the test temperature range, care should be taken to ensure that adequate safety measures are taken to limit the possibility of fire or explosion.