

Fire hazard testing —

Part 4: Terminology concerning fire tests for electrotechnical products

The European Standard EN 60695-4:2006 has the status of a British Standard

ICS 01.040.13; 29.020

National foreword

This British Standard was published by BSI. It is the UK implementation of EN 60695-4:2006. It is identical with IEC 60695-4:2005. It supersedes BS EN 60695-4:1996 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GEL/89, Fire hazard testing.

A list of organizations represented on GEL/89 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.

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

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English version

Fire hazard testing
Part 4: Terminology concerning fire tests
for electrotechnical products
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Essais relatifs aux risques du feu
Partie 4: Terminologie relative
aux essais au feu pour les produits
électrotechniques
(CEI 60695-4:2005)

Prüfungen zur Beurteilung der
Brandgefahr
Teil 4: Terminologie der Brandprüfungen
elektrotechnischer Produkte
(IEC 60695-4:2005)

This European Standard was approved by CENELEC on 2006-10-01. 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, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the 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 the International Standard IEC 60695-4:2005, prepared by IEC TC 89, Fire hazard testing, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 60695-4 on 2006-10-01 without any modification.

This European Standard supersedes EN 60695-4:1995.

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) | 2007-10-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2009-10-01 |

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60695-4:2005 was approved by CENELEC as a European Standard without any modification.

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FIRE HAZARD TESTING – Part 4: Terminology concerning fire tests for electrotechnical products

1 Scope

The terms and definitions defined in this standard are applicable to fire tests for electro-technical products.

One of the responsibilities of a technical committee is, wherever applicable, to make use of basic safety publications in the preparation of its publications.

2 Normative references

The following referenced documents are indispensable for the application 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.

IEC Guide 104:1997, *The preparation of safety publications and the use of basic safety publications and group safety publications*

ISO/IEC 13943:2000, *Fire safety – Vocabulary*

ISO/IEC Guide 51:1999, *Safety aspects – Guidelines for their inclusion in standards*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply. Some of the terms and definitions listed appear in ISO/IEC 13943.

3.1

abnormal heat

heat that is additional to that resulting from use under normal conditions, up to and including that which causes a fire situation

3.2

acute toxicity

ability of a substance to produce rapidly occurring adverse effects upon a living organism

3.3

afterflame time

the length of time during which an afterflame persists (also called duration of flaming)

3.4

afterglow time

the time length of during which an afterglow persists

3.5

asphyxiant

toxicant causing loss of consciousness and ultimately death resulting from hypoxic effects, particularly on the central nervous and/or cardiovascular systems

3.6

burned area

the area of a material that has been destroyed by combustion or pyrolysis, under specified test conditions, excluding any area damaged only by deformation

NOTE Expressed in m².

3.7

char (verb)

to form char

3.8

corrosion damage

the physical and/or chemical damage or impaired function caused by the fire effluent especially by chemical action

3.9

corrosion target

the sensor – product, component, or a reference material simulating them – used to determine the degree of corrosion damage, under specified test conditions

3.10

detonation

an explosion propagating at supersonic velocity and characterized by a shock wave

3.11

draught free environment

an environment in which the results of experiments are not significantly affected by the local air speed, for example:

- a) qualitatively, an environment in which a wax candle flame remains essentially undisturbed;
- b) quantitatively, an environment in which the air speed is not greater than 0,1 m/s

3.12

ease of ignition

the ease with which a specimen can be ignited under specified test conditions (see also *exposure time* and *minimum ignition time*)

3.13

effective exposure concentration 50

EC₅₀

concentration of a toxicant, or mixture of toxicants, statistically calculated from concentration response data over time that causes a specific observed effect in 50 % of a population of a given species under specific conditions

NOTE The observed effect is typically either a behavioural response of incapacitation or death. The effective concentration for a lethal exposure is termed "LC₅₀", the lethal concentration.