

© Copyright SEK Svensk Elstandard. Reproduction in any form without permission is prohibited.

## REDLINE VERSION

---

### **Provning av brandegenskaper – Del 4: Terminologi för brandprovning**

*Fire hazard testing –*

*Part 4: Terminology concerning fire tests for electrotechnical products*

En så kallad ”Redline version” (RLV) innehåller både den fastställda IEC-standarden och en ändringsmarkerad standard. Alla tillägg och borttagningar sedan den tidigare utgåvan är markerade med färg. Med en RLV sparar du mycket tid när du ska identifiera och bedöma aktuella ändringar i standarden. SEK Svensk Elstandard kan bara ge ut en RLV i de fall den finns tillgänglig från IEC.



IEC 60695-4

Edition 5.0 2021-06  
REDLINE VERSION

# INTERNATIONAL STANDARD



---

## Fire hazard testing – Part 4: Terminology concerning fire tests for electrotechnical products

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

---

ICS 01.040.13; 29.020

ISBN 978-2-8322-9941-8

**Warning! Make sure that you obtained this publication from an authorized distributor.**

## CONTENTS

|                                       |   |
|---------------------------------------|---|
| FOREWORD .....                        | 3 |
| 1 Scope .....                         | 6 |
| 2 Normative references .....          | 6 |
| 3 Terms and definitions .....         | 6 |
| 3.1 Use of the term “item” .....      | 6 |
| 3.2 Other terms and definitions ..... | 6 |

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## FIRE HAZARD TESTING –

**Part 4: Terminology concerning fire tests  
for electrotechnical products**

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. 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 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 IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

**This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition IEC 60695-4:2012. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.**

International Standard IEC 60695-4 has been prepared by of IEC technical committee 89: Fire hazard testing.

This fifth edition cancels and replaces the fourth edition published in 2012. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) The terms and definitions that are not specifically electrotechnical and that are either identical or equivalent to those in ISO 13943:2017 have been deleted.
- b) The terms and definitions that are specifically electrotechnical and that are in ISO 13943:2017 have been included for the convenience of the user.

The text of this International Standard is based on the following documents:

|             |                  |
|-------------|------------------|
| Draft       | Report on voting |
| 89/1462/CDV | 89/1502/RVC      |

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

The language used for the development of this International Standard is English.

It has the status of a basic safety publication in accordance with IEC Guide 104 and ISO/IEC Guide 51.

A list of all the parts in the IEC 60695 series, under the general title *Fire hazard testing*, can be found on the IEC website.

The following introductory elements represent a series of publications:

- Part 1: Guidance for assessing the fire hazard of electrotechnical products
- Part 2: Glowing/hot-wire based test methods
- Part 4: Terminology concerning fire tests for electrotechnical products
- Part 5: Corrosion damage effects of fire effluent
- Part 6: Smoke obscuration
- Part 7: Toxicity of fire effluent
- Part 8: Heat release
- Part 9: Surface spread of flame
- Part 10: Abnormal heat
- Part 11: Test flames

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under [webstore.iec.ch](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

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

**IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.**

## FIRE HAZARD TESTING –

### Part 4: Terminology concerning fire tests for electrotechnical products

#### 1 Scope

The terms and definitions in this part of IEC 60695 are applicable to fire tests for electrotechnical products.

This basic safety publication ~~is focusing on safety guidance~~ is primarily intended for use by technical committees in the preparation of ~~standards~~ safety publications in accordance with the principles laid down in IEC Guide 104 and ISO/IEC Guide 51.

One of the responsibilities of a technical committee is, wherever applicable, to make use of basic safety publications in the preparation of its publications. The requirements, test methods or test conditions of this basic safety publication will not apply unless specifically referred to or included in the relevant publications.

#### 2 Normative references

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.

IEC 60050 (all parts), *International Electrotechnical vocabulary* (available at [www.electropedia.org](http://www.electropedia.org))

IEC Guide 104:2010, *The preparation of safety publications and the use of basic safety publications and group safety publications*

~~IEC 60050, *International Electrotechnical vocabulary*~~

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

ISO 13943:2008/2017, *Fire safety – Vocabulary*

© Copyright SEK Svensk Elstandard. Reproduction in any form without permission is prohibited.

## Provning av brandegenskaper – Del 4: Terminologi för brandprovning

*Fire hazard testing –*

*Part 4: Terminology concerning fire tests for electrotechnical products*

Som svensk standard gäller europastandarden EN IEC 60695-4:2021. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 60695-4:2021.

### Nationellt förord

Europastandarden EN IEC 60695-4:2021

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60695-4, Fifth edition, 2021 - Fire hazard testing - Part 4: Terminology concerning fire tests for electrotechnical products**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 60695-4, utgåva 3, 2012, gäller ej fr o m 2024-07-28.



### *Standarder underlättar utvecklingen och höjer elsäkerheten*

Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

Genom att utforma sådana standarder blir säkerhetsfordringar tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

### *SEK är Sveriges röst i standardiseringsarbetet inom elområdet*

SEK Svensk Elstandard svarar för standardiseringen inom elområdet i Sverige och samordnar svensk medverkan i internationell och europeisk standardisering. SEK är en ideell organisation med frivilligt deltagande från svenska myndigheter, företag och organisationer som vill medverka till och påverka utformningen av tekniska regler inom elektrotekniken.

SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

### *Stora delar av arbetet sker internationellt*

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

Standardiseringsarbetet inom SEK är organiserat i referensgrupper bestående av ett antal tekniska kommittéer som speglar hur arbetet inom IEC och CENELEC är organiserat.

Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

### *Var med och påverka!*

Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

### **SEK Svensk Elstandard**

Box 1284  
164 29 Kista  
Tel 08-444 14 00  
[www.elstandard.se](http://www.elstandard.se)

English Version

**Fire hazard testing - Part 4: Terminology concerning fire tests for  
electrotechnical products  
(IEC 60695-4:2021)**

Essais relatifs aux risques du feu - Partie 4: Terminologie  
relative aux essais au feu pour les produits  
électrotechniques  
(IEC 60695-4:2021)

Prüfungen zur Beurteilung der Brandgefahr - Teil 4:  
Terminologie der Brandprüfungen elektrotechnischer  
Produkte  
(IEC 60695-4:2021)

This European Standard was approved by CENELEC on 2021-07-28. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

## **European foreword**

The text of document 89/1462/CDV, future edition 5 of IEC 60695-4, prepared by IEC/TC 89 "Fire hazard testing" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60695-4:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2022-04-28
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-07-28

This document supersedes EN 60695-4:2012 and all of its amendments and corrigenda (if any).

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.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

### **Endorsement notice**

The text of the International Standard IEC 60695-4:2021 was approved by CENELEC as a European Standard without any modification.

## 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 Where 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> |
|--------------------|-------------|---|--------------|-------------|
| IEC 60050          | series      | International Electrotechnical Vocabulary   | -            | -           |
| IEC Guide 104      | -           | The preparation of safety publications and the use of basic safety publications and group safety publications | -            | -           |
| ISO 13943          | 2017        | Fire safety - Vocabulary  | EN ISO 13943 | 2017        |
| ISO/IEC Guide 51   | -           | Safety aspects - Guidelines for their inclusion in standards  | -            | -           |

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

---

**Fire hazard testing –  
Part 4: Terminology concerning fire tests for electrotechnical products**

**Essais relatifs aux risques du feu –  
Partie 4: Terminologie relative aux essais au feu pour les produits  
électrotechniques**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
ELECTROTECHNIQUE  
INTERNATIONALE

---

ICS 01.040.13; 29.020

ISBN 978-2-8322-9906-7

**Warning! Make sure that you obtained this publication from an authorized distributor.  
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

## CONTENTS

|                                       |   |
|---------------------------------------|---|
| FOREWORD .....                        | 3 |
| 1 Scope .....                         | 5 |
| 2 Normative references .....          | 5 |
| 3 Terms and definitions .....         | 5 |
| 3.1 Use of the term “item” .....      | 5 |
| 3.2 Other terms and definitions ..... | 5 |

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. 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 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 IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60695-4 has been prepared by of IEC technical committee 89: Fire hazard testing.

This fifth edition cancels and replaces the fourth edition published in 2012. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) The terms and definitions that are not specifically electrotechnical and that are either identical or equivalent to those in ISO 13943:2017 have been deleted.
- b) The terms and definitions that are specifically electrotechnical and that are in ISO 13943:2017 have been included for the convenience of the user.

The text of this International Standard is based on the following documents:

| Draft       | Report on voting |
|-------------|------------------|
| 89/1462/CDV | 89/1502/RVC      |

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

The language used for the development of this International Standard is English.

It has the status of a basic safety publication in accordance with IEC Guide 104 and ISO/IEC Guide 51.

A list of all the parts in the IEC 60695 series, under the general title *Fire hazard testing*, can be found on the IEC website.

The following introductory elements represent a series of publications:

- Part 1: Guidance for assessing the fire hazard of electrotechnical products
- Part 2: Glowing/hot-wire based test methods
- Part 4: Terminology concerning fire tests for electrotechnical products
- Part 5: Corrosion damage effects of fire effluent
- Part 6: Smoke obscuration
- Part 7: Toxicity of fire effluent
- Part 8: Heat release
- Part 9: Surface spread of flame
- Part 10: Abnormal heat
- Part 11: Test flames

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under [webstore.iec.ch](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

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



## **FIRE HAZARD TESTING –**

### **Part 4: Terminology concerning fire tests for electrotechnical products**

#### **1 Scope**

The terms and definitions in this part of IEC 60695 are applicable to fire tests for electrotechnical products.

This basic safety publication focusing on safety guidance is primarily intended for use by technical committees in the preparation of safety publications in accordance with the principles laid down in IEC Guide 104 and ISO/IEC Guide 51.

One of the responsibilities of a technical committee is, wherever applicable, to make use of basic safety publications in the preparation of its publications. The requirements, test methods or test conditions of this basic safety publication will not apply unless specifically referred to or included in the relevant publications.

#### **2 Normative references**

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.

IEC 60050 (all parts), *International Electrotechnical vocabulary* (available at [www.electropedia.org](http://www.electropedia.org))

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

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

ISO 13943:2017, *Fire safety – Vocabulary*