

## SLOVENSKI STANDARD SIST EN 60695-4:2001

01-september-2001

#### Preskušanje požarne ogroženosti - 4. del: Terminologija požarnih preskusov

Fire hazard testing -- Part 4: Terminology concerning fire tests

Prüfungen zur Beurteilung der Brandgefahr -- Teil 4: Begriffe im Zusammenhang mit Brandprüfungen

Essais relatifs aux risques du feu -- Partie 4: Terminologie relative aux essais au feu (standards.iteh.ai)

Ta slovenski standard je istoveten z: EN 60695-4:1995

https://standards.iteh.ai/catalog/standards/sist/ec07d721-bff9-45dc-b09a-

261db167d703/sist-en-60695-4-2001

### ICS:

01.040.13	Varstvo okolja in zdravja. Varnost (Slovarji)	Environment and health protection. Safety (Vocabularies)
13.220.40	Sposobnost vžiga in obnašanje materialov in proizvodov pri gorenju	Ignitability and burning behaviour of materials and products
29.020	Elektrotehnika na splošno	Electrical engineering in general

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## EUROPEAN STANDARD-NORME EUROPÉENNE FUROPÄISCHE NORM

EN 60695-4

**April 1995** 

ICS 13.220.40; 01.040.13

Descriptors: Fire hazard testing, terminology

English version

## Fire hazard testing Part 4: Terminology concerning fire tests

(IEC 695-4:1993)

Essais relatifs aux risques du feu Partie 4: Terminologie relative aux essais au feu (CEI 695-4:1993) Prüfungen zur Beurteilung der Brandgefahr Teil 4: Begriffe im Zusammenhang mit Brandprüfungen (IEC 695-4:1993)

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This European Standard was approved by CENELEC on 1995-03-06. 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

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#### **Foreword**

The text of the International Standard IEC 695-4:1993, prepared by IEC TC 89, Fire hazard testing, was submitted to the formal vote and was approved by CENELEC as EN 60695-4 on 1995-03-06 without any modification.

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) 1996-03-01

 latest date by which the national standards conflicting with the EN have to be withdrawn

(dow) 1996-03-01

NOTE: Consideration should be given to ISO/IEC Guide 52, "Glossary of fire terms and definitions".

#### **Endorsement notice**

The text of the International Standard  $\underline{\text{IEC}}$  695-4:1993 was approved by CENELEC as a European Standard without any modification.

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## NORME INTERNATIONALE INTERNATIONAL STANDARD

CEI IEC 695-4

Deuxième édition Second edition 1993-10

## Essais relatifs aux risques du feu -

#### Partie 4:

Terminologie relative aux essais au feu

## iTeh STANDARD PREVIEW

(Fire hazard testingai)

Par<u>sia</u>T EN 60695-4:2001

https://standards.interminology.concerning fire tests

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#### INTERNATIONAL ELECTROTECHNICAL COMMISSION

#### FIRE HAZARD TESTING -

### Part 4: Terminology concerning fire tests

#### **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 cooperation 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, prepared by technical committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 3) They have the form of recommendations for international use 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.

SIST EN 60695-4:2001

International Standard IEC 695-4-has/been prepared by IEC technical committee 89: 261db167d703/sist-en-60695-4-2001

This second edition cancels and replaces the first edition published in 1989, of which it constitutes a minor revision, and includes new terms and definitions.

The text of this standard is based on the first edition as modified by the following documents:

DIS	Report on Voting
89(CO)25	89(CO)33

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

### FIRE HAZARD TESTING -

### Part 4: Terminology concerning fire tests

#### 1. Scope

The terms defined in this standard are applicable to fire tests.

#### 2. Terms and definitions

2.1 Actual calorific value; heat release (J/kg)

The calorific energy per unit mass which is released by the combustion of a material under specified test conditions (see also gross calorific value and net calorific value).

2.2 Afterflame

Persistence of flaming of a material under specified test conditions, after the ignition source has been removed. ANDARD PREVIEW

2.3 Afterflame time (standards.iteh.ai)

The length of time during which an 4 afterflame persists (also called duration of flaming). https://standards.iteh.ai/catalog/standards/sist/ec07d721-bff9-45dc-b09a-261db167d703/sist-en-60695-4-2001

2.4 Afterglow

Persistence of glowing combustion of a material after cessation of flaming or, if no flaming occurs, after the ignition source has been removed.

2.5 Afterglow time

The time length of during which an afterglow persists.

2.6 Arc resistance

The ability of an insulating material to resist the influence of an electric arc along its surface, under specified test conditions.

Note. – The arc resistance is identified by the length of the arc, the absence or presence of a conducting path, the burning or damage of the specimen under test.

2.7 Area burning rate (m<sup>2</sup>/s)

Area of a material burned per unit time under specified test conditions.

2.8 Ash; ashes

Mineral residues produced by complete combustion.

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Burn (intransitive verb) 2.9

To undergo combustion.

Burned area (m<sup>2</sup>) 2.10

> The area of a material that has been destroyed by combustion or pyrolysis, under specified test conditions, excluding any area damaged only by deformation (see also damaged area).

2.11 Bursting

> The violent rupture of an object due to overpressure and/or stress within it or upon it.

2.12 Char (noun)

Carbonaceous residue resulting from pyrolysis or incomplete combustion.

2.13 Char (verb)

To form char.

2.14 Chimney effect

Upward movement of smoke and hot gases by convection currents confined within an essentially vertical enclosure. ards. iteh.ai)

2.15 Clinker

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A solid agglomerate of residues formed by either complete or incomplete combustion and which results from complete or partial melting.

2.16 Combustible

Capable of burning.

Combustion 2.17

> Exothermic reaction of a substance with an oxidizer with emission of effluent, generally accompanied by flames and/or glowing and/or emission of smoke.

Composite material 2.18

A product consisting of two or more discrete materials.

2.19 Corrosion damage

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

2.20 Corrosion target

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

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### 2.21 Damaged area (m<sup>2</sup>)

The total of the area of a material affected permanently by thermal phenomena under specified test conditions: loss of material, deformation, softening, melting, charring, combustion, pyrolysis, etc. (see also burned area).

#### 2.22 Damaged length (m)

The maximum extent, in a specified direction, of the damaged area of a material under specified test conditions (see also extent of combustion).

#### 2.23 Deflagration

A combustion wave, accompanied by an explosion, propagating at subsonic velocity.

#### 2.24 Detonation

An explosion propagating at supersonic velocity and characterized by a shock wave.

#### 2.25 Ease of ignition

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

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#### 2.26 Explosion

An abrupt expansion of gas which may result from a rapid oxidation or decomposition reaction, with or without an increase of temperature.

## 2.27 Exposure https://standards.iteh.ai/catalog/standards/sist/ec07d721-bff9-45de-b09a-261db167d703/sist-en-60695-4-2001

The specified length of time for which a material is exposed to an ignition source (see also ease of ignition and minimum ignition time).

#### 2.28 Extent of combustion

The maximum length of a material that has been destroyed by combustion or pyrolysis, under specified test conditions, excluding any region damaged only by deformation (see also damaged length).

#### 2.29 Fire

- a) A process of combustion characterized by the emission of heat and effluent accompanied by smoke, and/or flame, and/or glowing;
- b) Rapid combustion spreading uncontrolled in time and space.

#### 2.30 Fire barrier

A part able to provide simultaneously a given fire integrity and thermal insulation under specified test conditions.

#### 2.31 Fire behaviour

The change in, or maintenance of the physical and/or chemical properties of a material, product and/or structure exposed to fire.

Note. - This concept includes both reaction to fire and fire resistance.

#### 2.32 Fire compartment

An enclosed space, comprising one or more rooms, bounded by elements of construction having a specified fire resistance and intended to prevent spreading of fire for a given period of time.

2.33 Fire effluent

The total gaseous, particulate or aerosol effluent from combustion or pyrolysis.

2.34 Fire effluent decay characteristics

The physical and/or chemical changes in fire effluent due to time and transport.

2.35 Fire effluent transport

The movement of fire effluent away from the location of the fire.

2.36 Fire hazard iTeh STANDARD PREVIEW

The potential for injury or loss of life and/or damage to property by fire.

2.37 Fire integrity SIST EN 60695-4:2001 https://standards.iteh.ai/catalog/standards/sist/ec07d721-bff9-45dc-b09a-

The ability of a separating element when exposed to fire on one side, to prevent the passage through it of flames and hot gases or the occurrence of flames on the unexposed side, for a stated period of time in a standard fire resistance test.

2.38 Fire load (J)

The sum of the calorific energies which could be released by the complete combustion of all of the combustible materials in a space, including the facings of the walls, partitions, floors and ceilings.

2.39 Fire load density (J/m<sup>2</sup>)

The fire load divided by floor area.

#### 2.40 Fire point (°C)

The lowest temperature at which a product ignites and continues to burn for a specified time after a small flame has been applied to its surface under standardized test conditions.

Note. – In English the term *fire point* has an additional meaning, i.e. a location where fire fighting equipment is sited which may also comprise a fire-alarm call-point and fire instruction notices.