

**Fire hazard testing -- Part 1-30: Guidance for  
assessing the fire hazard of electrotechnical  
products - Preselection testing process - General  
guidelines**

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 60695-1-30:2008 sisaldab Euroopa standardi EN 60695-1-30:2008 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 24.11.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 24.10.2008.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 60695-1-30:2008 consists of the English text of the European standard EN 60695-1-30:2008.

This standard is ratified with the order of Estonian Centre for Standardisation dated 24.11.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 24.10.2008.

The standard is available from Estonian standardisation organisation.

ICS 13.220.40, 29.020

**Võtmesõnad:** electric appliances, electrical engineering, electrical equipment, fire, fire hazard test, fire risks, fire tests, guide books, hazards, testing

### Standardite reprodutseerimis- ja levitamiseõigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:  
Aru 10 Tallinn 10317 Eesti; [www.evs.ee](http://www.evs.ee); Telefon: 605 5050; E-post: [info@evs.ee](mailto:info@evs.ee)

English version

**Fire hazard testing -  
Part 1-30: Guidance for assessing the fire hazard  
of electrotechnical products -  
Preselection testing process -  
General guidelines  
(IEC 60695-1-30:2008)**

Essais relatifs aux risques du feu -  
Partie 1-30: Lignes directrices  
pour l'évaluation des risques du feu  
des produits électrotechniques -  
Processus d'essais de présélection -  
Lignes directrices générales  
(CEI 60695-1-30:2008)

Prüfungen zur Beurteilung  
der Brandgefahr -  
Teil 1-30: Anleitung zur Beurteilung  
der Brandgefahr  
von elektrotechnischen Erzeugnissen -  
Anwendung von Vorauswahlverfahren -  
Allgemeiner Leitfaden  
(IEC 60695-1-30:2008)

This European Standard was approved by CENELEC on 2008-10-01. 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, Bulgaria, 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 document 89/865/FDIS, future edition 2 of IEC 60695-1-30, prepared by IEC TC 89, Fire hazard testing, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60695-1-30 on 2008-10-01.

This European Standard supersedes EN 60695-1-30:2002.

The main changes with respect to EN 60695-1-30:2002 are listed below:

- further explanation given in the introduction and scope;
- Clause 3: changes to the definitions;
- Clause 4: clarifications of the principles of product design considering preselection;
- Clause 5: clarifications of the advantages and limitations of preselection;
- Clause 6: clarifications of the aspects of preselection relative to hazard assessment;
- Annex A: changes in the references for examples of test methods which may be relevant to preselection;
- Annex B: changes in the illustrative example of the flowchart of the use of preselection tests for resistance to fire hazards of a specific product type.

This standard is to be used in conjunction with the future IEC 60695-1-10<sup>1)</sup> and IEC 60695-1-11<sup>1)</sup>.

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) 2009-07-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2011-10-01

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 60695-1-30:2008 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 60950-1	NOTE Harmonized as EN 60950-1:2006 (modified).
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<sup>1)</sup> Under consideration.

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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.

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 60695-4	2005	Fire hazard testing - Part 4: Terminology concerning fire tests for electrotechnical products	EN 60695-4	2006
IEC Guide 104	1997	The preparation of safety publications and the use of basic safety publications and group safety publications	-	-
ISO/IEC Guide 51	1999	Safety aspects - Guidelines for their inclusion in standards	-	-
ISO 13943	2000	Fire safety - Vocabulary	EN ISO 13943	2000

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## INTRODUCTION

In the design of any electrotechnical product, the risk of fire and the potential hazards associated with fire need to be considered. In this respect the objective of component, circuit and equipment design as well as the choice of materials is to reduce to acceptable levels the potential risks of fire even in the event of foreseeable abnormal use, malfunction or failure. The future IEC 60695-1-10<sup>2</sup> and IEC 60695-1-11<sup>2</sup> provide guidance on how this is to be accomplished using quantitative and qualitative fire tests.

The information gained from properly designed small-scale tests can be used as an aid for the preselection of proper materials, parts, components or sub-assemblies with regard to the fire hazard evaluation of the final end-product. The best method for testing electrotechnical products with regard to fire hazard is to duplicate exactly the conditions occurring in practice by conducting real-scale fire tests. Where this is not practicable, fire hazard testing should be conducted by simulating as closely as possible, the actual conditions of use and of the situation to which a sub-assembly, component, part or material may be exposed in such use. As an outcome of conducting a fire hazard assessment, an appropriate series of preselection flammability and ignition tests may enable reduced end-product testing.

Preselection is the procedure for assessing and choosing materials, components or sub-assemblies for parts of end-products. Preselection has been used for many years to assist the designer in the selection of candidate materials in the design stage of the end-product.

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<sup>2</sup> Under consideration.

## **FIRE HAZARD TESTING –**

### **Part 1-30: Guidance for assessing the fire hazard of electrotechnical products – Preselection testing process – General guidelines**

#### **1 Scope**

This part of IEC 60695 provides guidance for assessing and choosing candidate materials, components or sub-assemblies for making an end-product based upon preselection testing.

It describes how preselection provides comparative fire hazard test methods to evaluate the performance of a test specimen and how preselection can be used in the selection of materials, parts, components and sub-assemblies during the design stage of an end-product. It further describes how standardized test methods may be used as one part in the decision making processes directed to minimize the fire hazards from electrotechnical equipment. It states that one should take into account the desired reaction to fire properties of the end-product, and that one should consider the possible effects of environmental conditions on the behaviour of the end-product.

This basic safety publication is intended for use by technical committees in the preparation of standards 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 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 60695-4:2005, *Fire hazard testing – Part 4: Terminology concerning fire tests for electrotechnical products*

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

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

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

#### **3 Terms and definitions**

For the purposes of this document, the following terms and definitions apply.

##### **3.1**

##### **end-product fire test**

fire test that is described in a relevant product specification and that is carried out on an assembled product which is ready for use

NOTE End-product fire tests may be small-scale, intermediate-scale, large-scale or real-scale.