ICS 13.220.40, 29.020 SLOVENSKÁ TECHNICKÁ NORMA December 2014

STN	**Skúšanie požiarneho nebezpečenstva. Časť 2-11: Skúšky žeravým/horúcim drôtom. Skúšky horľavosti finálnych výrobkov žeravým drôtom (GWEPT).**	**STN EN 60695-2-11** 34 5630

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 11/14

Obsahuje: EN 60695-2-11:2014, IEC 60695-2-11:2014

Oznámením tejto normy sa od 13.03.2017 ruší
STN EN 60695-2-11 (34 5630) z júla 2002

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60695-2-11

July 2014

ICS 13.220.40; 29.020

Supersedes EN 60695-2-11:2001

English Version

Fire hazard testing - Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end-products (GWEPT) (IEC 60695-2-11:2014)

Essais relatifs aux risques du feu - Partie 2-11: Essais au fil incandescent/chauffant - Méthode d'essai d'inflammabilité pour produits finis (GWEPT) (CEI 60695-2-11:2014)

Prüfungen zur Beurteilung der Brandgefahr - Teil 2-11: Prüfungen mit dem Glühdraht - Prüfung mit dem Glühdraht zur Entflammbarkeit von Enderzeugnissen (GWEPT) (IEC 60695-2-11:2014)

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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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, 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: Avenue Marnix 17, B-1000 Brussels

Foreword

The text of document 89/1197/FDIS, future edition 2 of IEC 60695-2-11, prepared by IEC/TC 89 "Fire hazard testing" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60695-2-11:2014.

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)	2015-01-11
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2017-03-13

This document supersedes EN 60695-2-11:2001.

EN 60695-2-11:2014 includes the following significant technical changes with respect to EN 60695-2-11:2001:

– The Introduction has been added to provide background and how it relates to the Scope.
– The Scope has been modified for greater clarity and reference to basic safety publications.
– Numerous terms and definitions relevant to this Standard have been added to Clause 3.
– The application of “small parts” and “insignificant mass” have been introduced and clarified.
– The different types of specimens, how to specify them, and limitations of the test method have been further clarified in Clause 4.
– Clarified in Clause 5 the distance to specified layer when unknown.
– The information from Clause 6 has been moved into the test procedure in Clause 8.
– The conditioning of the specified layer and the laboratory ambient test conditions were clarified in Clause 7.
– Measurement of the maximum flame height was removed from Clause 9.
– The reference to this test as “GWEPT” was introduced along with an applicable title change.
– Annex A has been revised to reflect current practice by prominent product committees.

This standard is to be used in conjunction with EN 60695-2-10.

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

Endorsement notice

The text of the International Standard IEC 60695-2-11:2014 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60695-1-10	NOTE	Harmonised as EN 60695-1-10 (not modified).
IEC 60695-1-11	NOTE	Harmonised as EN 60695-1-11 (not modified).
IEC 60695-2-12	NOTE	Harmonised as EN 60695-2-12 (not modified).
IEC 60695-2-13	NOTE	Harmonised as EN 60695-2-13 (not modified).
IEC 60335-1	NOTE	Harmonised as EN 60335-1 (modified).
IEC 60695-4:2012	NOTE	Harmonised as EN 60695-4:2012 (not modified).
ISO/IEC 13943:2008	NOTE	Harmonised as EN ISO 13943:2010.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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.

Publication	Year	Title	EN/HD	Year
ISO/IEC Guide 51		Safety aspects - Guidelines for their inclusion in standards	-	-
IEC Guide 104		The preparation of safety publications and the use of basic safety publications and group safety publications	-	-
IEC 60695-2-10		Fire hazard testing - Part 2-10: Glowing/hot-wire based test methods - Glow-wire apparatus and common test procedure	EN 60695-2-10	

IEC 60695-2-11

Edition 2.0 2014-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

BASIC SAFETY PUBLICATION

PUBLICATION FONDAMENTALE DE SÉCURITÉ

Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods – Glow-wire flammability test method for end-products (GWEPT)

Essais relatifs aux risques du feu – Partie 2-11: Essais au fil incandescent/chauffant – Méthode d'essai d'inflammabilité pour produits finis (GWEPT)

IEC 60695-2-11:2014-02(EN-FR)

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INTERNATIONAL STANDARD

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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIRE HAZARD TESTING –

Part 2-11: Glowing/hot-wire based test methods – Glow-wire flammability test method for end-products (GWEPT)

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.
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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 60695-2-11 has been prepared by IEC technical committee 89: Fire hazard testing.

The text of this standard is based on the following documents:

FDIS	Report on voting
89/1197/FDIS	89/1206/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

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

This standard is to be used in conjunction with IEC 60695-2-10.

This second edition of IEC 60695-2-11 cancels and replaces the first edition of IEC 60695-2-11 published in 2000. It constitutes a technical revision.

The main changes with respect to the previous edition are listed below:

– The Introduction has been added to provide background and how it relates to the Scope.
– The Scope has been modified for greater clarity and reference to basic safety publications.
– Numerous terms and definitions relevant to this Standard have been added to Clause 3.
– The application of “small parts” and “insignificant mass” have been introduced and clarified.
– The different types of specimens, how to specify them, and limitations of the test method have been further clarified in Clause 4.
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– The conditioning of the specified layer and the laboratory ambient test conditions were clarified in Clause 7.
– Measurement of the maximum flame height was removed from Clause 9.
– The reference to this test as “GWEPT” was introduced along with an applicable title change.
– Annex A has been revised to reflect current practice by prominent product committees.

The committee has decided that the contents of this publication 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.

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.

INTRODUCTION

The purpose of this Introduction is to provide background regarding the basic guidance that prompted the preparation of this International Standard and how it relates to the Scope.

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 within the design of component, circuit, and product design, as well as the choice of the materials, is to reduce to acceptable levels the potential risks of fire during normal operating conditions, reasonable foreseeable abnormal use, malfunction, and/or failure. IEC Technical Committee 89 has developed IEC 60695-1-10, together with its companion, IEC 60695-1-11, to provide guidance on how this is to be accomplished.

The primary aims of IEC 60695-1-10 and IEC 60695-1-11 are to provide guidance on how:

a) to prevent ignition caused by an electrically energized component part, and
b) to confine any resulting fire within the bounds of the enclosure of the electrotechnical product in the event of ignition.

Secondary aims of these documents include the minimization of any flame spread beyond the product's enclosure and the minimization of harmful effects of fire effluents such as heat, smoke, toxicity and/or corrosivity.

Fires involving electrotechnical products can also be initiated from external non-electrical sources. Considerations of this nature should be dealt with in the overall fire hazard assessment.

In electrotechnical equipment, overheated metal parts can act as ignition sources. In glow-wire tests, a glowing wire is used to simulate such an ignition source.

IEC 60695-2-10 describes a glow-wire test apparatus and common test procedure, IEC 60695-2-12 describes a glow-wire flammability index (GWFI) test method for materials, and IEC 60695-2-13 describes a glow-wire ignition temperature (GWIT) test method for materials.

This standard is used to assess the reaction of end products to heat caused by contact with an electrically heated wire under controlled laboratory conditions. This may be useful for the evaluation of end products that may be exposed to excess thermal stress such as a fault current flowing through a wire, overloading of components, and/or poor electrical connections. It should not be used to solely describe or appraise the fire hazard or fire risk of products, or assemblies under actual fire conditions. However, results of this test may be used as elements of a fire hazard assessment which takes into account all of the factors which are pertinent to a particular end use.

This international standard may involve hazardous materials, operations, and equipment. It does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this international standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

FIRE HAZARD TESTING –

Part 2-11: Glowing/hot-wire based test methods – Glow-wire flammability test method for end-products (GWEPT)

1 Scope

This part of IEC 60695 specifies a test method on an end product. It is intended to simulate the effects of thermal stresses produced by an electrically heated source to represent a fire hazard.

This test method is used to check that, under defined test conditions, an end product exposed to an electrically heated source has either a limited ability to ignite or, if it ignites, a limited ability to propagate flame. However, the fire hazard analysis, the flammability aspects and the flame spreading to other products are not covered by the present standard.

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 documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60695-2-10, *Fire hazard testing – Part 2-10: Glowing/hot-wire based test methods – Glow-wire apparatus and common test procedure*

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*