PD CLC/TS 62441:2012

BSI Standards Publication

Safeguards against accidentally caused candle flame ignition for audio/video, communication and information technology equipment

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National foreword

This Published Document is the UK implementation of CLC/TS 62441:2012. It is identical to IEC/TS 62441:2011. It supersedes DD CLC/TS 62441:2007 which is withdrawn.

Users should be aware that the UK national committee abstained from the vote on this Technical Specification as consensus on its content was not achieved at national level. However, it is necessary to make this publication available because of an undated reference in BS EN 60065:2002.

The UK participation in its preparation was entrusted to Technical Committee EPL/108, Safety of electronic equipment within the field of audio/video, information technology and communication technology.

A list of organizations represented on this committee 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.

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

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Date	Text affected

TECHNICAL SPECIFICATION

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CLC/TS 62441

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Supersedes CLC/TS 62441:2007

English version

Safeguards against accidentally caused candle flame ignition for audio/video, communication and information technology equipment
(IEC/TS 62441:2011)

Mesures de protection contre l'embrasement accidentel dû à une flamme de bougie dans les équipements audio/vidéo, des technologies de la communication et de l'information (CEI/TS 62441:2011)

Schutzmaßnahmen gegen zufällige Entzündung von Geräten der Audio/Video-, Kommunikations- und Informationstechnologie durch Kerzenflamme (IEC/TS 62441:2011)

PD CLC/TS 62441:2013

This Technical Specification was approved by CENELEC on 2012-01-23.

CENELEC members are required to announce the existence of this TS in the same way as for an EN and to make the TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force.

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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom. PD CLC/TS 62441:2013

CENELEC

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

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Foreword

This document (CLC/TS 62441:2012) consists of the text of IEC/TS 62441:2011 prepared by IEC/TC 108 "Safety of electronic equipment within the field of audio/video, information technology and communication technology".

This document supersedes CLC/TS 62441:2007.

CLC/TS 62441:2012 includes the following significant technical changes with respect to CLC/TS 62441:2007:

– acceptance of wood with a minimum thickness as equivalent to V-1;

– interpretation information regarding vertical surfaces.

The following print types are used:

– requirements proper and normative annexes: in roman type;

– *compliance statements and test specifications: in italic type;*

– notes/explanatory matter: in small roman type;

– terms that are defined in Clause 3: **bold**.

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/TS 62441:2011 was approved by CENELEC as a Technical Specification without any modification.

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 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60695-11-5	-	Fire hazard testing Part 11-5: Test flames - Needle-flame test method - Apparatus, confirmatory test arrangement and guidance	EN 60695-11-5	-
IEC 60695-11-10	-	Fire hazard testing Part 11-10: Test flames - 50 W horizontal and vertical flame test methods	EN 60695-11-10	-
IEC 60695-11-20	-	Fire hazard testing Part 11-20: Test flames - 500 W flame test methods	EN 60695-11-20	-

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INTRODUCTION

The first version of this technical specification was discussed at the TC108 plenary meeting in Matsue, Japan in October 2008. It was decided to extend the TS for another three year period and to implement some changes as previously agreed in several TC108 meetings. The text of this technical specification is based on the outcome of these discussions.

In line with SMB decision 135/20 and document AC/22/2009, it is anticipated that the next step for this document would be a proposal for publication as an International Standard, taking into account any further developments regarding the improvement of these requirements.

It should be noted that the Fire Team of the HBSDT (Hazard based standard development team) developed requirements on a Heat Release Rate Performance Test and recommended a peak Heat Release Rate (pHRR) value of 50 KW for equipment covered by the standard. It also generated test data for the specific pre-selection criteria for equipment, such as keyboards, that have fuels that are predominantly horizontal in their construction. Development testing that had been conducted included assessment of products that were difficult to ignite with a candle and that passed preliminary pHRR testing with significant margin. However, these products commonly use fuels that may not pass

1) the flammability rating,
2) the material weight exemption, or
3) the sustained ignition testing.

These additional requirements and test methods did not give the same level of reproducibility that would be desired for inclusion as normative requirements in a standard, and are therefore not currently included in this technical specification. It should be noted that additional work is being undertaken to improve on the pHRR test procedure so that better reproducibility can be attained.

SAFEGUARDS AGAINST ACCIDENTALLY CAUSED CANDLE FLAME IGNITION FOR AUDIO/VIDEO, COMMUNICATION AND INFORMATION TECHNOLOGY EQUIPMENT

1 Scope

This technical specification introduces safeguards to reduce the likelihood of room flash-over as a result of accidental ignition of exterior housings of audio/video and information communication technology products likely to be used in the home, caused by a candle flame.

NOTE According to AC/22/2009 and SMB decision 135/20, this technical specification should currently only be used for television sets. It can be used for other products only if a risk assessment indicates problems with these products.

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 60695-11-5, *Fire hazard testing – Part 11-5: Test flames – Needle-flame test method – Apparatus, confirmatory test arrangement and guidance*

IEC 60695-11-10, *Fire hazard testing – Part 11-10: Test flames – 50 W horizontal and vertical flame test methods*

IEC 60695-11-20, *Fire hazard testing – Part 11-20: Test flames – 500 W flame test methods*

3 Terms and definitions

3.1
combustible material
organic material, capable of combustion by a candle flame

NOTE 1 Metal or ceramic are examples of materials that are not combustible by a candle flame.

NOTE 2 All plastic materials are considered combustible by a candle flame, regardless of flammability classification.

3.2
flammability classification of materials
classification of the burning and extinguishing behaviour of a material

NOTE 1 Material classes are defined in 3.2.1 to 3.2.4. Where a certain class of material is required, a material with a better classification is always acceptable.

NOTE 2 When applying the requirements in this technical specification, a material of **5VA class material** is regarded as better than **5VB class material**, **5VB class material** better than **V-0 class material** and **V-0 class material** better than **V-1 class material** (see 5.1).

NOTE 3 When applying the requirements in this technical specification, **V-2 class material** or HB class material is considered less than **V-1 class material** (see 5.1). For further details regarding these flame classifications, see IEC 60695-11-10.