



National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 61249-2-5:2004

ICS 31.180

**MATERIALS FOR PRINTED BOARDS AND  
OTHER INTERCONNECTING STRUCTURES  
PART 2-5: REINFORCED BASE MATERIALS,  
CLAD AND UNCLAD - BROMINATED EPOXIDE  
CELLULOSE PAPER REINFORCED  
CORE/WOVEN E-GLASS REINFORCED  
SURFACES LAMINATED SHEETS OF DEFINED  
FLAMMABILITY (VERTICAL BURNING TEST),  
COPPER-CLAD  
(IEC 61249-2-5:2003)**

National Standards  
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EUROPEAN STANDARD

**EN 61249-2-5**

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2003

ICS 31.180

English version

**Materials for printed boards and other interconnecting structures**

**Part 2-5: Reinforced base materials, clad and unclad –**

**Brominated epoxide cellulose paper reinforced core /**

**woven E-glass reinforced surfaces laminated sheets**

**of defined flammability (vertical burning test), copper-clad**

(IEC 61249-2-5:2003)

Matériaux pour circuits imprimés et autres structures d'interconnexion

Partie 2-5: Matériaux de base renforcés, plaqués et non plaqués –

Feuilles stratifiées avec couches centrales renforcées en papier cellulose époxyde bromé et couches superficielles renforcées en tissu de verre de type E époxyde, d'inflammabilité définie (essai de combustion verticale), plaquées cuivre

(CEI 61249-2-5:2003)

Materialien für Verbindungsstrukturen

Teil 2-5: Kaschierte und unkaschierte verstärkte Basismaterialien –

Kupferkaschierte mit Zellulose-Papier-Innenlagen und E-Glasgewebe-Außenlagen verstärkte Laminattafeln auf der Basis von bromiertem Epoxidharz mit definierter Brennbarkeit (Brennprüfung mit vertikaler Prüflingslage)

(IEC 61249-2-5:2003)

This European Standard was approved by CENELEC on 2003-12-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Lithuania, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, 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**

## **Foreword**

The text of document 91/410/FDIS, future edition 1 of IEC 61249-2-5, prepared by IEC TC 91, Electronics assembly technology, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61249-2-5 on 2003-12-01.

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) 2004-09-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2006-12-01

Annexes designated "normative" are part of the body of the standard.

Annexes designated "informative" are given for information only.

In this standard, annex ZA is normative and annexes A, B and C are informative.

Annex ZA has been added by CENELEC.

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## **Endorsement notice**

The text of the International Standard IEC 61249-2-5:2003 was approved by CENELEC as a European Standard without any modification.

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## Annex ZA (normative)

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

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

**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 61189-2 + corr. June	1997	Test methods for electrical materials, printed boards and other interconnection structures and assemblies	EN 61189-2 + corr. August	1997
		Part 2: Test methods for materials for interconnection structures		
IEC 61249-5-1	1995	Materials for interconnection structures Part 5: Sectional specification set for conductive foils and films with or without coatings – Section 1: Copper foils (for the manufacture of copper-clad base materials)	EN 61249-5-1	1996
ISO 9000	2000	Quality management systems - Fundamentals and vocabulary	EN ISO 9000	2000
ISO 11014-1	1994	Safety data sheet for chemical products Part 1: Content and order of sections	-	-
ISO 14001	1996	Environmental management systems Specification with guidance for use	EN ISO 14001	1996

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**Matériaux pour circuits imprimés  
et autres structures d'interconnexion –**

**Partie 2-5:**

**Matériaux de base renforcés, plaqués et non  
plaqués – Feuilles stratifiées avec couches  
centrales renforcées en papier cellulose époxyde  
bromé et couches superficielles renforcées en  
tissu de verre de type E époxyde, d'inflammabilité  
définie (essai de combustion verticale),  
plaquées cuivre**

**Materials for printed boards and other  
interconnecting structures –**

**Part 2-5:**

**Reinforced base materials, clad and unclad –  
Brominated epoxide cellulose paper reinforced  
core / woven E-glass reinforced surfaces  
laminated sheets of defined flammability  
(vertical burning test), copper-clad**

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Numéro de référence  
Reference number  
CEI/IEC 61249-2-5:2003

## Numérotation des publications

Depuis le 1er janvier 1997, les publications de la CEI sont numérotées à partir de 60000. Ainsi, la CEI 34-1 devient la CEI 60034-1.

## Editions consolidées

Les versions consolidées de certaines publications de la CEI incorporant les amendements sont disponibles. Par exemple, les numéros d'édition 1.0, 1.1 et 1.2 indiquent respectivement la publication de base, la publication de base incorporant l'amendement 1, et la publication de base incorporant les amendements 1 et 2.

## Informations supplémentaires sur les publications de la CEI

Le contenu technique des publications de la CEI est constamment revu par la CEI afin qu'il reflète l'état actuel de la technique. Des renseignements relatifs à cette publication, y compris sa validité, sont disponibles dans le Catalogue des publications de la CEI (voir ci-dessous) en plus des nouvelles éditions, amendements et corrigenda. Des informations sur les sujets à l'étude et l'avancement des travaux entrepris par le comité d'études qui a élaboré cette publication, ainsi que la liste des publications parues, sont également disponibles par l'intermédiaire de:

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Le catalogue en ligne sur le site web de la CEI ([www.iec.ch/searchpub](http://www.iec.ch/searchpub)) vous permet de faire des recherches en utilisant de nombreux critères, comprenant des recherches textuelles, par comité d'études ou date de publication. Des informations en ligne sont également disponibles sur les nouvelles publications, les publications remplacées ou retirées, ainsi que sur les corrigenda.

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## Publication numbering

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## Consolidated editions

The IEC is now publishing consolidated versions of its publications. For example, edition numbers 1.0, 1.1 and 1.2 refer, respectively, to the base publication, the base publication incorporating amendment 1 and the base publication incorporating amendments 1 and 2.

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