Irish Standard
EN 61249-2-36:2009

"Materials for printed boards and other interconnecting structures -- Part 2-36: Reinforced base materials, clad and unclad - Epoxide woven E-glass laminate sheets of defined flammability (vertical burning test), copper-clad for lead-free assembly" (IEC 61249 -2-36:2008 (EQV))

EN 61249-2-36:2009

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Údarás um Chaighdeáin Náisiúnta na hÉireann

I.S. EN 61249-2-36:2009

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61249-2-36

March 2009

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English version

Materials for printed boards and other interconnecting structures - Part 2-36: Reinforced base materials, clad and unclad - Epoxide woven E-glass laminate sheets of defined flammability (vertical burning test), copper-clad for lead-free assembly

(IEC 61249-2-36:2008)

Matériaux pour circuits imprimés
et autres structures d'interconnexion -
Partie 2-36: Matériaux de base renforcés,
plaqués et non plaqués -
Feuilles stratifiées en tissu de verre
de type E époxyde,
plaquées cuivre, d'inflammabilité définie
(essai de combustion verticale)
pour les assemblages sans plomb
(CEI 61249-2-36:2008)

Materialien für Leiterplatten
und andere Verbindungsstrukturen -
Teil 2-36: Kaschierte und unkaschierte
verstärkte Basismaterialien -
Kupferkaschierte mit E-Glasgewebe
verstärkte Epoxidharz-Laminattafeln
mit definierter Brennbarkeit
(Brennprüfung mit vertikaler Prüflingslage)
für bleifreie Bestückungstechnik
(IEC 61249-2-36:2008)

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CENELEC

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

Central Secretariat: avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 61249-2-36:2009 E

Foreword

The text of document 91/801/FDIS, future edition 1 of IEC 61249-2-36, prepared by IEC TC 91, Electronics assembly technology, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61249-2-36 on 2009-02-01.

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)	2009-11-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2012-02-01

Annex ZA has been added by CENELEC.

———————

Endorsement notice

The text of the International Standard IEC 61249-2-36:2008 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 60194	NOTE Harmonized as EN 60194:2006 (not modified).

———————

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.

Publication	Year	Title	EN/HD	Year
IEC 61189-2	2006	Test methods for electrical materials, printed boards and other interconnection structures and assemblies - Part 2: Test methods for materials for interconnection structures	EN 61189-2	2006
IEC 61249-5-1	1995	Materials for interconnection structures - Part 5: Sectional specification set for conductive foils and films with and without coatings - Section 1: Copper foils (for the manufacture of copper-clad base materials)	EN 61249-5-1	1996
ISO 9000	- [1)]	Quality management systems - Fundamentals and vocabulary	EN ISO 9000	2005 [2)]
ISO 11014-1	- [1)]	Safety data sheet for chemical products - Part 1: Content and order of sections	-	-
ISO 14001	- [1)]	Environmental management systems - Requirements with guidance for use	EN ISO 14001	2004 [2)]

[1)] Undated reference.

[2)] Valid edition at date of issue.

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I.S. EN 61249-2-36:2009

IEC 61249-2-36

Edition 1.0 2008-11

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Materials for printed boards and other interconnecting structures – Part 2-36: Reinforced base materials, clad and unclad – Epoxide woven E-glass laminate sheets of defined flammability (vertical burning test), copper-clad for lead-free assembly

Matériaux pour circuits imprimés et autres structures d'interconnexion – Partie 2-36: Matériaux de base renforcés, plaqués et non plaqués – Feuilles stratifiées en tissu de verre de type E époxyde, plaquées cuivre, d'inflammabilité définie (essai de combustion verticale) pour les assemblages sans plomb

IEC 61249-2-36:2008

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INTERNATIONAL STANDARD

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

MATERIALS FOR PRINTED BOARDS AND OTHER INTERCONNECTING STRUCTURES –

Part 2-36: Reinforced base materials, clad and unclad – Epoxide woven E-glass laminate sheets of defined flammability (vertical burning test), copper-clad for lead-free assembly

FOREWORD

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International Standard IEC 61249-2-36 has been prepared by IEC technical committee 91: Electronics assembly technology.

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

FDIS	Report on voting
91/801/FDIS	91/824/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.

A list of all parts of the IEC 61249 series, under the general title *Materials for printed boards and other interconnecting structures*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result 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.

MATERIALS FOR PRINTED BOARDS AND OTHER INTERCONNECTING STRUCTURES –

Part 2-36: Reinforced base materials, clad and unclad – Epoxide woven E-glass laminate sheets of defined flammability (vertical burning test), copper-clad for lead-free assembly

1 Scope

This part of IEC 61249 gives requirements for properties of di-functional brominated epoxide woven E-glass laminate sheet 0,05 mm up to 3,2 mm, of defined flammability (vertical burning test), copper-clad. The glass transition temperature is defined to be 120 °C minimum.

Its flame resistance is defined in terms of the flammability requirements of 7.3.

Some property requirements may have several classes of performance. The class desired should be specified on the purchase order otherwise the default class of material will be supplied.

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 61189-2:2006, *Test methods for electrical materials, printed boards and other interconnection structures and assemblies – Part 2: Test method for interconnection structures*

IEC 61249-5-1:1995, *Materials for interconnection structures – Part 5: Sectional specification set for conductive foils and films with and without coatings – Section 1: Copper foils (for the manufacture of copper-clad base materials)*

ISO 9000, *Quality management systems – Fundamentals and vocabulary*

ISO 11014-1, *Safety data sheet for chemical products – Part 1: Content and order of sections*

ISO 14001, *Environmental management systems – Requirements with guidance for use*

3 Materials and construction

The sheet consists of an insulating base with metal foil bonded to one side or both.

3.1 Resin system

Majority di-functional epoxide, modified epoxide, woven E-glass laminate with a glass transition temperature of 120 °C minimum. The flammability rating is achieved through the use of bromine reacted into the polymer. Inorganic fillers may be used. Contrast agents may be added to enhance processing such as automated optical inspection (AOI).

Its flame resistance is defined in terms of the flammability requirements of 7.3.