SIST

SLOVENSKI STANDARD

SIST EN 61249-2-19:2002

01-september-2002

Materials for printed boards and other interconnecting structures - Part 2-19: Reinforced base materials, clad and unclad - Epoxide cross-plied linear fibreglass-reinforced laminated sheets of defined flammability (vertical burning test) copper clad

Materials for printed boards and other interconnecting structures -- Part 2-19: Reinforced base materials, clad and unclad - Epoxide cross-plied linear fibreglass-reinforced laminated sheets of defined flammability (vertical burning test) copper clad

Materialien für Leiterplatten und andere Verbindungsstrukturen -- Teil 2-19: Kaschierte und unkaschierte verstärkte Basismaterialien - Kupferkaschierte mit kreuzweise angeordnetem Glasfasergelege verstärkte Epoxidharz-Laminattafeln mit definierter Brennbarkeit (Brennprüfung mit vertikaler Prüflingslage)

Matériaux pour circuits imprimés et autres structures d'interconnexion -- Partie 2-19: Matériaux de base renforcés, plaqués et non plaqués - Feuilles multicouches de fibre de verre linéaire cohérente avec résine époxyde pour hautes températures, d'inflammabilité définie (essai d'inflammabilité verticale), plaquées cuivre

Ta slovenski standard je istoveten z: **EN 61249-2-19:2002**

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SIST EN 61249-2-19:2002 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61249-2-19

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ICS 31.180

English version

Materials for printed boards and other interconnecting structures Part 2-19: Reinforced base materials, clad and unclad – Epoxide cross-plied linear fibreglass-reinforced laminated sheets of defined flammability (vertical burning test) copper clad

(IEC 61249-2-19:2001)

Matériaux pour circuits imprimés et autres structures d'interconnexion
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Materialien für Leiterplatten und andere Verbindungsstrukturen
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(IEC 61249-2-19:2001)

This European Standard was approved by CENELEC on 2002-02-01. 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, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, 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

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Foreword

The text of document 91/264/FDIS, future edition 1 of IEC 61249-2-19, prepared by IEC TC 91, Electronics assembly technology, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61249-2-19 on 2002-02-01.

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) 2002-11-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2005-02-01

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 and B are informative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61249-2-19:2001 was approved by CENELEC as a European Standard without any modification.

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.

Publication	Year	Title	EN/HD	Year
IEC 61189-2	1997	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 + corr. August	1997 1997
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	Series	Quality management systems	EN ISO 9000	Series
ISO 14001	1996	Environmental management systems Specification with guidance for use	EN ISO 14001	1996
ISO 11014-1	1994	Safety data sheet for chemical products Part 1: Content and order of sections	-	-

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Matériaux pour circuits imprimés et autres structures d'interconnexion –

Partie 2-19: Matériaux de base renforcés, plaqués et non plaqués – Feuilles multicouches de fibre de verre linéaire cohérente avec résine époxyde pour hautes températures, d'inflammabilité définie (essai d'inflammabilité verticale), plaquées cuivre

Materials for printed boards and other interconnecting structures –

Part 2-19: Reinforced base materials, clad and unclad – Epoxide cross-plied linear fibreglass-reinforced laminated sheets of defined flammability (vertical burning test), copper clad

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FOREWORD

1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.

2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.

3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.

4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.

5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.

6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61249-2-19 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
91/264/FDIS	91/272/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 3.

Annexes A and B are for information only.

The committee has decided that the contents of this publication will remain unchanged until 2005. 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 2-19: Reinforced base materials, clad and unclad – Epoxide cross-plied linear fibreglass-reinforced laminated sheets of defined flammability (vertical burning test), copper-clad

1 Scope

This part of IEC 61249 gives requirements for properties of epoxide linear fibreglass reinforced copper-clad laminated sheet, of defined flammability with a thickness range from 0,05 mm to 0,40 mm.

NOTE Linear fibreglass is defined as all fibres being aligned in one direction (not randomly or perpendicularly aligned).

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 61249. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 61249 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 61189-2:1997, *Test methods for electrical materials, interconnection structures and assemblies – 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 and without coatings – Section 1: Copper foils (for the manufacture of copper-clad base materials)*

ISO 9000 (all parts), *Quality management systems*

ISO 14001:1996, *Environmental management systems – Specification with guidance for use*

ISO 11014-1:1994, *Safety data sheet for chemical products – Part 1: Content and order of sections*

3 Materials and construction

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

3.1 Insulating base

Epoxide cross-plied linear fibreglass laminate. Its flame resistance is defined in terms of the flammability requirements of 7.3.