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Responsible committee: EPL/501 Electronic Assembly Technology

Interested committees:

Title: BS EN IEC 61249-2-54 Materials for printed boards and other interconnecting structures

Part 2-54: Reinforced base materials clad and unclad - Halogenated modified or unmodified resin system, woven E-glass laminate sheets of defined dissipation factor (less than 0,005 at 10 GHz) and flammability (vertical burning test), copper-clad for high

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- ii) affects other national standard(s)
- iii) requires additional national guidance or information

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Responsible Committee Secretary: **Committee Service Centre (BSI)**
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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

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Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/Figure/ Table/Note	Type of comment	Commend (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



PROJECT NUMBER:

IEC 61249-2-54 ED1

DATE OF CIRCULATION:

2024-08-16

CLOSING DATE FOR COMMENTS:

2024-11-08

SUPERSEDES DOCUMENTS:

91/1892/NP, 91/1963A/RVN

IEC TC 91 : ELECTRONICS ASSEMBLY TECHNOLOGY

SECRETARIAT:

Japan

SECRETARY:

Mr Osamu IKEDA

OF INTEREST TO THE FOLLOWING COMMITTEES:

TC 40,TC 47,SC 47A,SC 47D

HORIZONTAL FUNCTION(S):

ASPECTS CONCERNED:

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Recipients of this document are invited to submit, with their comments, notification of any local regulations or technical reasons that may exist and should be considered should this proposal proceed, recognizing that failure to address such requirements could result in the need for new or existing "In Some Countries" clauses. (SEE [AC/22/2007](#) OR [NEW GUIDANCE DOC](#)).

TITLE:

Materials for printed boards and other interconnecting structures - Part 2-54: Reinforced base materials clad and unclad - Halogenated modified or unmodified resin system, woven E-glass laminate sheets of defined dissipation factor (less than 0,005 at 10 GHz) and flammability (vertical burning test), copper-clad for high speed applications

NOTE FROM TC/SC OFFICERS:

This document is the CD draft for halogenated copper-clad laminate, which is used for high-speed circuit board. The document has been revised according to comments on NP draft. The document is ready for CD circulation since there were no additional comments for the revised NP draft during WG4 circulation in July.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**MATERIALS FOR PRINTED BOARDS AND OTHER INTERCONNECTING
STRUCTURES –****Part 2-54: Reinforced base materials clad and unclad –
Halogenated modified or unmodified resin system, woven E-glass
laminate sheets of defined dissipation factor (less than 0,005 at 10 GHz)
and flammability (vertical burning test), copper-clad for high-speed
applications**

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International Standard IEC 61249-2-XX 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/XX/FDIS	91/XX/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.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

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.

MATERIALS FOR PRINTED BOARDS AND OTHER INTERCONNECTING STRUCTURES –

Part 2-XX: Reinforced base materials clad and unclad – Halogenated modified or unmodified resin system, woven E-glass laminate sheets of defined dissipation factor (less than 0,005 at 10 GHz) and flammability (vertical burning test), copper-clad for high-speed applications

1 Scope

This part of IEC 61249 gives requirements for properties of high-performance resin, modified or unmodified, woven E-glass laminate sheet 0,05 mm up to 3,2 mm of defined flammability (vertical burning test), copper-clad for high-speed application. The glass transition temperature is defined to be 170 °C minimum. The dissipation factor is less than 0,0050 at 10 GHz. Some property requirements may have several classes of performance. The class desired should be specified in the purchase order, otherwise the default class of material will be supplied.

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 must be specified on the purchase order otherwise the default class of material will be supplied.

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 61189-2-721:2015, *Test methods for electrical materials, printed boards and other interconnection structures and assemblies - Part 2-721: Test methods for materials for interconnection structures - Measurement of relative permittivity and loss tangent for copper clad laminate at microwave frequency using a split post dielectric resonator*

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*

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)*

IEC/PAS 61249-6-3:2011, *Specification for finished fabric woven from "E" glass for printed boards*

ISO 11014:2009, *Safety data sheet for chemical products – Content and order of sections*

ISO 14001:2015, *Environmental management systems – Requirements with guidance for use*