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**Material för mönsterkort och annan förbindning –
Del 4-14: Gruppsspecifikation för obelagt förimpregenerat
material (prepreg) för tillverkning av flerlagerkort –
E-glasvävsepoxihartsprepreg med brandtålighet specificerad
i vertikalt läge, för blyfri montering**

*Materials for printed boards and other interconnecting structures –
Part 4-14: Sectional specification set for prepreg materials, unclad
(for the manufacture of multilayer boards) –
Epoxide woven E-glass prepreg of defined flammability
(vertical burning test) for lead-free assembly*

Som svensk standard gäller europastandarden EN 61249-4-14:2009. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61249-4-14:2009.

Nationellt förord

Europastandarden EN 61249-4-14:2009

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 61249-4-14, First edition, 2009 - Materials for printed boards and other interconnecting structures - Part 4-14: Sectional specification set for prepreg materials, unclad (for the manufacture of multilayer boards) - Epoxide woven E-glass prepreg of defined flammability (vertical burning test) for lead-free assembly**

utarbetad inom International Electrotechnical Commission, IEC.

Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a säkerhet, prestanda, dokumentation, utförande och skötsel av elprodukter, elanläggningar och metoder. Genom att utforma sådana standarder blir säkerhetskraven tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

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SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

Stora delar av arbetet sker internationellt

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Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

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Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

SEK Svensk Elstandard

Box 1284
164 29 Kista
Tel 08-444 14 00
www.elstandard.se

**Materials for printed boards and other interconnecting structures -
Part 4-14: Sectional specification set for prepreg materials, unclad
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Epoxide woven E-glass prepreg of defined flammability
(vertical burning test) for lead-free assembly
(IEC 61249-4-14:2009)**

Matériaux pour circuits imprimés
et autres structures d'interconnexion -
Partie 4-14: Série de spécifications
intermédiaires pour matériaux préimprégnés,
non plaqués (pour la fabrication des cartes
multicouches) -
Tissu de verre époxyde préimprégné
de type E d'inflammabilité définie
(essai de combustion verticale)
destiné aux assemblages sans plomb
(CEI 61249-4-14:2009)

Materialien für Leiterplatten
und andere Verbindungsstrukturen -
Teil 4-14: Rahmenspezifikationen
für unkaschierte Prepreg-Materialien
(zur Herstellung von Mehrlagenleiterplatten) -
Mit E-Glasgewebe verstärkte Epoxidharz-
Prepregs mit definierter Brennbarkeit
(Brennprüfung mit vertikaler Prüflingslage)
für bleifreie Bestückungstechnik
(IEC 61249-4-14:2009)

This European Standard was approved by CENELEC on 2009-06-01. 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, Bulgaria, 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 and the United Kingdom.

CENELEC

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

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 91/850/FDIS, future edition 1 of IEC 61249-4-14, prepared by IEC TC 91, Electronics assembly technology, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61249-4-14 on 2009-06-01.

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) 2010-03-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2012-06-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61249-4-14:2009 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60194	NOTE Harmonized as EN 60194:2006 (not modified).
IEC 61249-2-7	NOTE Harmonized as EN 61249-2-7:2002 (not modified).
IEC 61249-2-8	NOTE Harmonized as EN 61249-2-8:2003 (not modified).
ISO 9000	NOTE Harmonized as EN ISO 9000:2005 (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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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 61249-2-36	- ¹⁾	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	EN 61249-2-36	2009 ²⁾
IEC 62326-4	- ¹⁾	Printed boards - Part 4: Rigid multilayer printed boards with interlayer connections - Sectional specification	EN 62326-4	1997 ²⁾
ISO 11014-1	1994	Safety data sheet for chemical products - Part 1: Content and order of sections	-	-

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

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MATERIALS FOR PRINTED BOARDS AND OTHER INTERCONNECTING STRUCTURES –

Part 4-14: Sectional specification set for prepreg materials, unclad (for the manufacture of multilayer boards) – Epoxide woven E-glass prepreg of defined flammability (vertical burning test) for lead-free assembly

1 Scope

This part of IEC 61249 gives requirements for properties of prepreg that are mainly intended to be used as bonding sheets in connection with laminates according to IEC 61249-2-36 when manufacturing multilayer boards according to IEC 62326-4. Multilayer boards comprised of these materials are suitable for lead-free assembly processes. This material may also be used to bond other types of laminates.

Prepreg according to this standard is of defined flammability (vertical burning test). The flammability rating on fully cured prepreg is achieved through the use of brominated fire retardants contained as an integral part of the polymeric structure. After curing of the prepreg according to the supplier's instructions, the glass transition temperature is defined to be 120 °C minimum.

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 methods for materials for interconnection structures*

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

IEC 62326-4, *Printed boards – Part 4: Rigid multilayer printed boards with interlayer connections – Sectional specification*

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

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