

**SLOVENSKI  
STANDARD**

**SIST EN 60249-2-  
12:1995/A3:2002**

prva izdaja  
maj 2002

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Amendment to subclauses 5.8 and 5.9 of EN

**iTeh STANDARD PREVIEW  
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SIST EN 60249-2-12:1995/A3:2002  
<https://standards.iteh.ai/catalog/standards/sist/6699cffd-3f60-4a6e-9a36-e748032925d3/sist-en-60249-2-12-1995-a3-2002>

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ICS 13.220.40; 31.180

Referenčna številka  
SIST EN 60249-2-  
12:1995/A3:2002(en)

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Descriptors: Printed circuit, composite materials, glass, copper, printed board-multilayer, flammability

English version

**Base materials for printed circuits  
Part 2: Specifications  
Specification No. 12: Thin epoxide woven glass fabric copper-clad  
laminated sheet of defined flammability, for use in the fabrication  
of multilayer printed boards  
(IEC 249-2-12:1987/A3:1994)**

Matériaux de base pour circuits  
imprimés

Partie 2: Spécifications  
Spécification n° 12: Feuille de stratifié  
mince en tissu de verre époxyde,  
recouverte de cuivre, d'inflammabilité  
définie, destinée à la fabrication des  
cartes de câblages imprimés  
multicouches  
(CEI 249-2-12:1987/A3:1994)

Basismaterialien für gedruckte  
Schaltungen

Teil 2: Einzelbestimmungen  
Einzelbestimmung Nr. 12: Dünne  
kupferkaschierte  
Epoxidharz-Glashartgewebetafeln  
definierter Brennbarkeit zur Herstellung  
von Mehrlagenleiterplatten  
(IEC 249-2-12:1987/A3:1994)

This amendment A3 modifies the European Standard EN 60249-2-12:1994; it was approved by CENELEC on 1995-09-20. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, 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

### Foreword

The text of amendment 3:1994 to the International Standard IEC 249-2-12:1987, prepared by IEC TC 52, Printed circuits, was submitted to the formal vote and was approved by CENELEC as amendment A3 to EN 60249-2-12:1994 on 1995-09-20 without any modification.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1996-09-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 1996-09-01

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### Endorsement notice

The text of amendment 3:1994 to the International Standard IEC 249-2-12:1987 was approved by CENELEC as an amendment to the European Standard without any modification.

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NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD

CEI  
IEC

249-2-1, et/and -6  
1985  
249-2-3, -7, -11, -12  
1987

AMENDEMENT 3  
AMENDMENT 3

1994-05

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Amendement 3

Matériaux de base pour circuits imprimés

Deuxième partie:

**STANDARDS PREVIEW**  
Specifications. Specifications nos 1, 3, 6, 7, 11 et 12  
(standards.iteh.ai)

Amendment 3

<https://standards.iteh.ai/catalog/standards/sist/6699cfd1-3f60-4a6e-9a36-e74000000000/iec-249-2-12-1995-a3-2002>  
Base materials for printed circuits

Part 2:

Specifications. Specifications Nos. 1, 3, 6, 7,  
11 and 12

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

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## FOREWORD

This amendment has been prepared by IEC technical committee 52: Printed circuits.

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

DIS	Report on voting
52(CO)396	52(CO)397

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

This amendment is applicable to the standards listed in the table below (first column). The relevant amendment number to each standard which this amendment modifies is also given in the table (second column).

IEC standard No.	Amendment No.
249-2-1	3
249-2-2	4
249-2-3	3
249-2-4	4
249-2-5	4
249-2-6	3
249-2-7	3
249-2-9	4
249-2-10	4
249-2-11	3
249-2-12	3
249-2-14	4
249-2-16	2
249-2-17	2
249-2-18	2
249-2-19	2

*In publications IEC 249-2-1, IEC 249-2-3, IEC 249-2-6, IEC 249-2-7, IEC 249-2-11 and IEC 249-2-12, replace the existing subclause 5.8 "Size tolerances" and subclause 5.9 "Rectangularity of cut panels" by the following:*

## 5.8 Sheet sizes

### 5.8.1 Typical sheet sizes

Typical sheet size are:

- 1 060 mm × 1 150 mm
- 915 mm × 1 220 mm
- 1 000 mm × 1 000 mm
- 1 000 mm × 1 200 mm.

Apart from these typical sheet sizes, fractions of the sizes and other sizes, for example larger, are available on the market.

### 5.8.2 Tolerances for sheet sizes

The size of the sheets delivered by the supplier shall not deviate more than  $^{+20}_0$  mm from the ordered size.

## 5.9 Cut panels

### 5.9.1 Cut panel sizes

Cut panel sizes shall be, when delivered, in accordance with the purchaser's specification.

### 5.9.2 Size tolerances for cut panels

For panels cut to size according to the purchaser's specification, the following tolerances for length and width shall apply:

Panel size (mm)	Tolerance ± (mm)	
	Normal	Close
Up to 300	1	0,5
Over 300 to 600	2	0,8
Over 600	3	1,6

NOTE – The specified tolerances include all deviations caused by cutting the panels.

### 5.9.3 Rectangularity of cut panels

Property	Test method (subclause of IEC 249-1)	Requirements	
		Coarse (mm/m)	Normal (mm/m)
Rectangularity of cut panels	3.15	3	2