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**Prevleke za z elementi opremljene plošče tiskanega vezja (standardne prevleke) - 2. del: Preskusne metode (IEC 61086-2:2004)**

**(istoveten EN 61086-2:2004)**

Coatings for loaded printed wire boards (conformal coatings) - Part 2: Methods of test (IEC 61086-2:2004)

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EUROPEAN STANDARD

**EN 61086-2**

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2004

ICS 29.035.20

Supersedes EN 61086-2:1994

English version

**Coatings for loaded printed wire boards  
(conformal coatings)  
Part 2: Methods of test  
(IEC 61086-2:2004)**

Revêtements appliqués  
sur les cartes de câblage imprimées  
(revêtements enrobants)  
Partie 2: Méthodes d'essai  
(CEI 61086-2:2004)

Beschichtungen für bestückte  
Leiterplatten (conformal coatings)  
Teil 2: Prüfverfahren  
(IEC 61086-2:2004)

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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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, 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 document 15C/1546/FDIS, future edition 2 of IEC 61086-2, prepared by SC 15C, Specifications, of IEC TC 15, Insulating materials, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61086-2 on 2004-04-01.

This European Standard supersedes EN 61086-2:1994.

This edition, which is presented in a new layout, includes the following significant technical changes from EN 61086-2:1994:

- a) a new specimen A has been added;
- b) new cleaning and test procedures have been added.

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) | 2005-01-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn                                               | (dow) | 2007-04-01 |

Annex ZA has been added by CENELEC.

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**Endorsement notice**

The text of the International Standard IEC 61086-2:2004 was approved by CENELEC as a European Standard without any modification.

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## 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 Where 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 60068-2-10	1988	Environmental testing Part 2: Tests - Test J and guidance: Mould growth	HD 323.2.10 S3	1988
IEC 60068-2-11	1981	Part 2: Tests - Test Ka: Salt mist	EN 60068-2-11	1999
IEC 60068-2-14	1984	Part 2: Tests - Test N: Change of temperature	EN 60068-2-14 <sup>1)</sup>	1999
IEC 60068-2-39	1976	Part 2: Tests - Test ZAMD: Combined sequential cold, low air pressure and damp heat test	EN 60068-2-39	1999
IEC 60068-2-78	2001	Part 2-78: Tests - Test Cab: Damp heat, steady state	EN 60068-2-78	2001
IEC 60243-1	1998	Electrical strength of insulating materials - Test methods Part 1: Tests at power frequencies	EN 60243-1	1998
IEC 60249-1	1982	Base materials for printed circuits Part 1: Test methods	EN 60249-1 <sup>2)</sup>	1993
IEC 60455-2	1998	Resin based reactive compounds used for electrical insulation Part 2: Methods of test	EN 60455-2	1999
IEC 60707	1999	Flammability of solid non-metallic materials when exposed to flame sources - List of test methods	EN 60707	1999
IEC 61086-1	- <sup>3)</sup>	Coatings for loaded printed wire boards (conformal coatings) Part 1: Definitions, classification and general requirements	EN 61086-1	2004 <sup>4)</sup>

<sup>1)</sup> EN 60068-2-14 includes A1:1986 to IEC 60068-2-14.

<sup>2)</sup> EN 60249-1 includes A1:1984 + A2:1989 + A3:1991 to IEC 60249-1.

<sup>3)</sup> Undated reference.

<sup>4)</sup> Valid edition at date of issue.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61086-3-1	- <sup>3)</sup>	Part 3-1: Specifications for individual materials - Coatings for general purpose (Class 1), high reliability (Class 2) and aerospace (Class 3)	EN 61086-3-1	2004 <sup>4)</sup>
ISO 1514 (mod)	1984	Paints and varnishes - Standard panels for testing	EN 605 <sup>5)</sup>	1992
ISO 1519	2002	Paints and varnishes - Bend test (cylindrical mandrel)	EN ISO 1519	2002
ISO 2808	1997	Paints and varnishes - Determination of film thickness	EN ISO 2808	1999
ISO 5636-3	1992	Paper and board - Determination of air permeance (medium range) Part 3: Bendtsen method	-	-

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<sup>5)</sup> EN 605 is superseded by EN ISO 1514:1997, which is based on ISO 1514:1993.

NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD

CEI  
IEC

61086-2

Deuxième édition  
Second edition  
2004-02

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**Revêtements appliqués sur les cartes  
de câblage imprimées (revêtements  
enrobants) –**

**Partie 2:  
Méthodes d'essai**

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**Part 2:  
Methods of test**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**COATINGS FOR LOADED PRINTED WIRE BOARDS  
(CONFORMAL COATINGS) –**
**Part 2: Methods of test**

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 61086-2 has been prepared by subcommittee 15C: Specifications, of IEC technical committee 15: Insulating materials.

This second edition cancels and replaces the first edition, published in 1992, and constitutes a technical revision. The major changes concern the addition of a new specimen A, new cleaning and test procedures and a new layout.

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

FDIS	Report on voting
15C/1546/FDIS	15C/1568/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

The committee has decided that the contents of this publication will remain unchanged until 2009. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

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## INTRODUCTION

This International Standard forms part of a series under the general title *Coatings for loaded printed wire boards (conformal coatings)*.

The series consists of three parts:

Part 1: Definitions, classification and general requirements (IEC 61086-1)

Part 2: Methods of test (IEC 61086-2)

Part 3: Specifications for individual materials (IEC 61086-3)

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