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Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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English version

**Determination of certain substances in electrotechnical products -
Part 2: Disassembly, disjointment and mechanical sample preparation
(IEC 62321-2:2013)**

Détermination de certaines substances
dans les produits électrotechniques -
Partie 2: Démontage, désassemblage et
préparation mécanique de l'échantillon
(CEI 62321-2:2013)

Verfahren zur Bestimmung von
bestimmten Substanzen in Produkten der
Elektrotechnik -
Teil 2: Demontage, Zerlegung und
mechanische Probenvorbereitung
(IEC 62321-2:2013)

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CENELEC

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 111/301/FDIS, future edition 1 of IEC 62321-2, prepared by IEC/TC 111 "Environmental standardization for electrical and electronic products and systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62321-2:2014.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2014-10-25
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2016-11-15

EN 62321-2:2014 is a partial replacement of EN 62321:2009, forming a structural revision and generally replacing Clause 5 and incorporating IEC/PAS 62596:2009 [1]¹⁾ which will be withdrawn upon publication of IEC 62321-2.

Future parts in the EN 62321 series will gradually replace the corresponding clauses in EN 62321:2009. Until such time as all parts are published, however, EN 62321:2009 remains valid for those clauses not yet re-published as a separate part.

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

IEC 62554	NOTE	Harmonised as EN 62554 (not modified).
IEC 62542	NOTE	Harmonised as EN 62542 (not modified).
IEC 62321-6	NOTE	Harmonised as EN 62321-6 (not modified).
IEC 62321-7-1	NOTE	Harmonised as EN 62321-7-1 (not modified).
IEC 62137-1-2	NOTE	Harmonised as EN 62137-1-2 (not modified).

¹⁾ Numbers in square brackets refer to the Bibliography.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

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 62321-1	-	Determination of certain substances in electrotechnical products - Part 1: Introduction and overview	EN 62321-1	-
IEC 62321-3-1	-	Determination of certain substances in electrotechnical products - Part 3-1: Screening electrotechnical products for lead, mercury, cadmium, total chromium and total bromine using X-ray Fluorescence Spectrometry	EN 62321-3-1	-
IEC 62321-3-2	-	Determination of certain substances in electrotechnical products - Part 3-2: Screening of total bromine in electric and electronic products by combustion-ion chromatography (C-IC)	EN 62321-3-2	-
IEC 62321-4	-	Determination of certain substances in electrotechnical products - Part 4: Determination of mercury in polymers, metals and electronics by CV-AAS, CV-AFS, ICP-OES and ICP-MS	EN 62321-4	-
IEC 62321-5	-	Determination of certain substances in electrotechnical products - Part 5: Determination of cadmium, lead and chromium in polymers and electronics, and cadmium and lead in metals by AAS, AFS, ICP-OES and ICP-MS	EN 62321-5	-



INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Determination of certain substances in electrotechnical products –
Part 2: Disassembly, disjointment and mechanical sample preparation**

**Détermination de certaines substances dans les produits électrotechniques –
Partie 2: Démontage, désassemblage et préparation mécanique de l'échantillon**



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Edition 1.0 2013-06

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Determination of certain substances in electrotechnical products –
Part 2: Disassembly, disjointment and mechanical sample preparation**

**Détermination de certaines substances dans les produits électrotechniques –
Partie 2: Démontage, désassemblage et préparation mécanique de l'échantillon**

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CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references	7
3 Terms, definitions and abbreviations	8
3.1 Terms and definitions	8
3.2 Abbreviations	8
4 Introduction to sampling	9
4.1 Introductory remark	9
4.2 Requirements and concerns for substances of concern	9
4.3 Complexity of electrotechnical products and related challenges.....	9
4.4 Strategies for sampling.....	10
5 Sampling.....	13
5.1 Introductory remark	13
5.2 Complete product	14
5.3 Partial disassembly	14
5.4 Complete disassembly.....	14
5.5 Partial disjointment.....	14
5.6 Complete disjointment.....	15
5.7 Considerations of sampling and disjointment.....	15
5.7.1 Introductory remark	15
5.7.2 Sample size required	15
5.7.3 Sample size versus detection limit.....	17
5.7.4 Composite testing of disjointable samples	17
5.7.5 Non-uniform “homogeneous materials”	18
5.7.6 Determination of sampling position of homogeneous materials	19
6 Conclusions and recommendations for sampling	19
7 Mechanical sample preparation	20
7.1 Overview	20
7.1.1 Field of application	20
7.1.2 Quality assurance.....	20
7.2 Apparatus, equipment and materials.....	21
7.3 Procedure	21
7.3.1 Manual cutting.....	21
7.3.2 Coarse grinding/milling	22
7.3.3 Homogenizing.....	22
7.3.4 Fine grinding/milling	22
7.3.5 Very fine grinding of polymers and organic materials	22
Annex A (informative) Examples of procedures for sampling and disjointment	23
Annex B (informative) Probability of the presence of certain substances.....	32
Annex C (informative) Composite testing and sampling.....	35
Annex D (informative) Tools used in sampling.....	38
Annex E (informative) Examples of mobile phone disassembly and component disjointment	39
Bibliography.....	50

Figure 1 – Generic iterative procedure for sampling	11
Figure 2 – Cross-section of a 900 µm wide lead oxide-based resistor (SMD)	19
Figure A.1 – Methodology for sampling and disjointment.....	24
Figure A.2 – Sampling of DVD player	25
Figure A.3 – Sampling of CRT	26
Figure A.4 – Sampling of LCD TV	27
Figure A.5 – Sampling of PDA/phone	28
Figure A.6 – Sampling of desk fan	29
Figure A.7 – Sampling of components – Thick film resistor	30
Figure A.8 – Sampling of components – SMD potentiometer	31
Figure D.1 – Hot gas gun for removing the electronic components	38
Figure D.2 – Vacuum pin to remove the target electronic devices	38
Figure E.1 – Mobile phone type A with battery charger and camera lens cap	39
Figure E.2 – Mobile phone type A with battery and back cover removed	40
Figure E.3 – Partial disassembly of a mobile phone (type B) into its major components	41
Figure E.4 – Complete disassembly of the key pad	42
Figure E.5 – Complete disassembly of the bottom housing	42
Figure E.6 – Complete disassembly of the other housing/frame	43
Figure E.7 – Components of the TFT display of the mobile phone after partial disjointment	43
Figure E.8 – Components of the main PWB of the mobile phone after partial disjointment	44
Figure E.9 – Disjointment of lead frame component	46
Figure E.10 – BGA package prior to disjointment	47
Figure E.11 – BGA package disjointed by the hand removal procedure	47
Figure E.12 – Solder ball material collected from BGA using a hand removal procedure	48
Figure E.13 – BGA solder ball removal using the ball shear procedure	48
Table 1 – Minimum number of lead frame samples required for analytical testing	16
Table 2 – Levels of a certain substance in a composite sample	18
Table B.1 – Probability of the presence of certain substances in materials and components used in electrotechnical products (1 of 3)	32
Table C.1 – Calculated maximum concentration for a composite sample based on detection limit	36
Table C.2 – Required detection limit for a composite sample based on the maximum allowable concentration	37
Table E.1 – Possible certain substances or screening substances from a mobile phone	40
Table E.2 – Possible certain substances in major components of the mobile phone	41
Table E.3 – Examples of disjointment for typical small electronic components	45

INTERNATIONAL ELECTROTECHNICAL COMMISSION

DETERMINATION OF CERTAIN SUBSTANCES IN ELECTROTECHNICAL PRODUCTS –

Part 2: Disassembly, disjointment and mechanical sample preparation

FOREWORD

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International Standard IEC 62321-2 has been prepared by IEC technical committee 111: Environmental standardization for electrical and electronic products and systems.

The first edition of IEC 62321:2008 was a 'stand-alone' standard that included an introduction, an overview of test methods, a mechanical sample preparation as well as various test method clauses.

This first edition of IEC 62321-2 is a partial replacement of IEC 62321:2008, forming a structural revision and generally replacing Clause 5 and incorporating IEC/PAS 62596:2009 [1]¹ which will be withdrawn upon publication of IEC 62321-2.

¹ Numbers in square brackets refer to the Bibliography.

Future parts in the IEC 62321 series will gradually replace the corresponding clauses in IEC 62321:2008. Until such time as all parts are published, however, IEC 62321:2008 remains valid for those clauses not yet re-published as a separate part.

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

FDIS	Report on voting
111/301/FDIS	111/311/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.

A list of all parts in the IEC 62321 series can be found on the IEC website under the general title: *Determination of certain substances in electrotechnical products*

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.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

The widespread use of electrotechnical products has drawn increased attention to their impact on the environment. In many countries this has resulted in the adaptation of regulations affecting wastes, substances and energy use of electrotechnical products.

The use of certain substances (e.g. lead (Pb), cadmium (Cd) and polybrominated diphenyl ethers (PBDEs)) in electrotechnical products, is a source of concern in current and proposed regional legislation.

The purpose of the IEC 62321 series is therefore to provide test methods that will allow the electrotechnical industry to determine the levels of certain substances of concern in electrotechnical products on a consistent global basis.

WARNING – Persons using this International Standard should be familiar with normal laboratory practice. This standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

DETERMINATION OF CERTAIN SUBSTANCES IN ELECTROTECHNICAL PRODUCTS –

Part 2: Disassembly, disjointment and mechanical sample preparation

1 Scope

This part of IEC 62321 provides strategies of sampling along with the mechanical preparation of samples from electrotechnical products, electronic assemblies and electronic components. These samples can be used for analytical testing to determine the levels of certain substances as described in the test methods in other parts of IEC 62321. Restrictions for substances will vary between geographic regions and from time to time. This Standard describes a generic process for obtaining and preparing samples prior to the determination of any substance which are under concern.

This standard does not provide:

- full guidance on each and every product that could be classified as electrotechnical equipment. Since there is a huge variety of electrotechnical components, with various structures and processes, along with the continuous innovations in the industry, it is unrealistic to attempt to provide procedures for the disjointment of every type of component;
- guidance regarding other routes to gather additional information on certain substances in a product, although the information collected has relevance to the sampling strategies in this standard;
- safe disassembly and mechanical disjointment instructions related to electrotechnical products (e.g. mercury-containing switches) and the recycling industry (e.g. how to handle CRTs or the safe removal of batteries). See IEC 62554 [2] for the disjointment and mechanical sample preparation of mercury-containing fluorescent lamps;
- the definition of a “unit” as the sample;
- sampling procedures for packaging and packaging materials;
- analytical procedures to measure the levels of certain substances. This is covered by other standards (for example other parts of IEC 62321), which are referred to as the “test standard” in this standard;
- guidelines for assessment of compliance.

NOTE Further guidance on assessment procedures is provided by IEC/TR 62476 [3].

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 62321-1, *Determination of certain substances in electrotechnical products – Part 1 Introduction and overview*

IEC 62321-3-1, *Determination of certain substances in electrotechnical products – Part 3-1: Screening – Lead, mercury, cadmium, total chromium and total bromine using X-ray fluorescence spectrometry*

IEC 62321-3-2, *Determination of certain substances in electrotechnical products – Part 3-2: Screening – Total bromine in polymers and electronics by combustion – Ion chromatography (C-IC)*

IEC 62321-4, *Determination of certain substances in electrotechnical products – Part 4: Determination of mercury in polymers, metals and electronics by CV-AAS, CV-AFS, ICP-OES and ICP-MS*

IEC 62321-5, *Determination of certain substances in electrotechnical products – Part 5: Determination of cadmium, lead and chromium in polymers and electronics and cadmium and lead in metals by AAS, AFS, ICP-OES, ICP-AES and ICP-MS* ²

koniec náhľadu – text ďalej pokračuje v platenej verzii STN