

**SLOVENSKI STANDARD****SIST EN 61951-1:2004****01-februar-2004****Nadomešča:****SIST EN 60285:1997****SIST EN 60285:1997/A1:1997****SIST EN 60285:1997/A2:2002****SIST EN 61440:2001****SIST EN 61951-1:2002****SIST HD 561 S1:1997**

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**Sekundarne celice in baterije, ki vsebujejo alkalne ali druge nekislinske elektrolite  
- Prenosne posamezne ponovno polnjlive hermetične celice - 1. del: Nikelj-kadmij**

**(standards.iteh.ai)**

Secondary cells and batteries containing alkaline or other non-acid electrolytes - Portable sealed rechargeable single cells - Part 1: Nickel-cadmium

<https://standards.iteh.ai/catalog/standards/sist/786a8960-6993-41fc-9961-c682b2508d6b/sist-en-61951-1-2004>

Akkumulatoren und Batterien mit alkalischem oder anderen nichtsäurehaltigen Elektrolyten - Tragbare wiederaufladbare gasdichte Einzelzellen -- Teil 1: Nickel-Cadmium

Accumulateurs alcalins et autres accumulateurs à électrolyte non acide - Accumulateurs individuels portables étanches -- Partie 1: Nickel-cadmium

**Ta slovenski standard je istoveten z: EN 61951-1:2003**

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**ICS:**

29.220.30	Alkalni sekundarni členi in baterije	Alkaline secondary cells and batteries
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**SIST EN 61951-1:2004****en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

EN 61951-1

July 2003

ICS 29.220.30

Supersedes HD 561 S1:1991, EN 60285:1994 + A1:1995 + A2:1999,  
EN 61440:1997 & EN 61951-1:2001

English version

**Secondary cells and batteries containing alkaline or  
other non-acid electrolytes –  
Portable sealed rechargeable single cells  
Part 1: Nickel-cadmium  
(IEC 61951-1:2003)**

Accumulateurs alcalins et autres  
accumulateurs à électrolyte non acide -  
Accumulateurs individuels portables  
étanches  
Partie 1: Nickel-cadmium  
(CEI 61951-1:2003)

Akkumulatoren und Batterien mit  
alkalischem oder anderen  
nichtsäurehaltigen Elektrolyten -  
Tragbare wiederaufladbare gasdichte  
Einzelzellen  
Teil 1: Nickel-Cadmium  
(IEC 61951-1:2003)

**ITCH STANDARD PREVIEW  
(standards.itech.ai)**

SIST EN 61951-1:2004

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This European Standard was approved by CENELEC on 2003-06-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, 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 21A/373/FDIS, future edition 2 of IEC 61951-1, prepared by SC 21A, Secondary cells and batteries containing alkaline or other non-acid electrolytes, of IEC TC 21, Secondary cells and batteries, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61951-1 on 2003-06-01.

This European Standard supersedes HD 561 S1:1991, EN 60285:1994 + A1:1995 + A2:1999, EN 61440:1997 and EN 61951-1:2001.

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) 2004-03-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2006-06-01

Annexes designated "normative" are part of the body of the standard.  
In this standard, annex ZA is normative.  
Annex ZA has been added by CENELEC.

## iTeh STANDARD PREVIEW ([standards.itech.ai](#))

The text of the International Standard IEC 61951-1:2003 was approved by CENELEC as a European Standard without any modification. [SIST EN 61951-1:2004](#)  
<https://standards.itech.ai/catalog/standards/sist/786a8960-6993-41fc-9961-168212508411/standards/61951-1:2004>

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 61434      NOTE      Harmonized as EN 61434:1996 (not modified).

**Annex ZA**  
(normative)

**Normative references to international publications  
with their corresponding European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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 60050-486	- 1)	International Electrotechnical Vocabulary (IEV) Chapter 486: Secondary cells and batteries	-	-
IEC 60051	Series	Direct acting indicating analogue electrical measuring instruments and their accessories	EN 60051	Series
IEC 60086-1	Series	Primary batteries	EN 60086	Series
IEC 60410	- 1)	<a href="https://standards.iec.ch/expected-revision-of/iec60410-1-2004">Sampling plans and procedures for inspection by attributes</a> <a href="https://standards.iec.ch/expected-revision-of/iec60410-1-2004">https://standards.iec.ch/expected-revision-of/iec60410-1-2004</a>	-	-
IEC 60485	- 1)	Digital electronic d.c. voltmeters and d.c. electronic analogue-to-digital converters	-	-
IEC 61959	- 2)	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Mechanical tests for sealed portable secondary cells and batteries	-	-

1) Undated reference.

2) At draft stage.

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# NORME INTERNATIONALE INTERNATIONAL STANDARD

CEI  
IEC  
**61951-1**

Deuxième édition  
Second edition  
2003-04

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**Accumulateurs alcalins et autres accumulateurs  
à électrolyte non acide –  
Accumulateurs individuels portables étanches –**

**Partie 1:**

**Nickel-cadmium STANDARD PREVIEW  
(standards.iteh.ai)**

**Secondary cells and batteries containing**

SIST EN 61951-1:2004  
https://standards.iteh.ai/catalog/standards/SIST%2061951-1%20-%20Portable%20sealed%20rechargeable%20single%20cells%20-%20Nickel-cadmium%20cells%20and%20batteries%20containing%20alkaline%20or%20other%20non-acid%20electrolytes%20-%20Individual%20portable%20hermetically%20sealed%20rechargeable%20single%20cells%20-%20Part%201%20-%20Nickel-cadmium

**Part 1:**

**Nickel-cadmium**

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

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For price, see current catalogue*

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**SECONDARY CELLS AND BATTERIES CONTAINING ALKALINE  
OR OTHER NON-ACID ELECTROLYTES –  
PORTABLE SEALED RECHARGEABLE SINGLE CELLS –**

**Part 1: Nickel-cadmium**

**FOREWORD**

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61951-1 has been prepared by subcommittee 21A: Secondary cells and batteries containing alkaline or other non-acid electrolytes, of IEC technical committee 21: Secondary cells and batteries.

This second edition cancels and replaces the first edition published in 2001, of which it constitutes a technical revision.

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

FDIS	Report on voting
21A/373/FDIS	21A/379/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.

IEC 61951 series, published under the general title *Secondary cells and batteries containing alkaline or other non-acid electrolytes – Portable sealed rechargeable single cells*, consists of the following parts:

- Part 1: Nickel-cadmium
- Part 2: Nickel-metal hydride.

The committee has decided that the contents of this publication will remain unchanged until 2008-06. At this date, the publication will be

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

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SIST EN 61951-1:2004

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## SECONDARY CELLS AND BATTERIES CONTAINING ALKALINE OR OTHER NON-ACID ELECTROLYTES – PORTABLE SEALED RECHARGEABLE SINGLE CELLS –

### Part 1: Nickel-cadmium

#### 1 Scope

This part of IEC 61951 specifies marking, designation, dimensions, tests and requirements for portable sealed nickel-cadmium small prismatic, cylindrical and button rechargeable single cells, suitable for use in any orientation.

#### 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 60050(486), *International Electrotechnical Vocabulary Chapter 486: Secondary cells and batteries*

IEC 60051 (all parts), *Direct acting indicating analogue electrical measuring instruments and their accessories*

[SIST EN 61951-1:2004](#)

IEC 60086 (all parts), *Primary batteries*

<https://standards.iteh.ai/catalog/standards/sist/786a8960-6993-41fc-9961-c682b2508d6b/sist-en-61951-1-2004>

IEC 60410, *Sampling plans and procedures for inspection by attributes*

IEC 60485, *Digital electronic d.c. voltmeters and d.c. electronic analogue-to-digital converters*

IEC 61959, *Secondary cells and batteries containing alkaline or other non-acid electrolytes – Mechanical tests for sealed portable secondary cells and batteries*<sup>1</sup>

#### 3 Definitions

For the purposes of this document, the definitions contained in IEC 60050-486 and the following apply.

##### 3.3.1

##### **small prismatic cell**

cell in the form of a rectangular parallelepiped whose width and thickness dimensions are not more than 25 mm

##### 3.3.2

##### **cylindrical cell**

cell of circular cross-section in which the overall height is equal to, or greater than, the overall diameter

<sup>1</sup> To be published.