



SLOVENSKI STANDARD
oSIST prEN IEC 60086-5:2026

01-november-2026

Primarne baterije - 5. del: Varnost baterij z vodnim elektrolitom

Primary batteries - Part 5: Safety of batteries with aqueous electrolyte

Primärbatterien - Teil 5: Sicherheit von Batterien mit wässrigem Elektrolyt

Piles électriques - Partie 5: Sécurité des piles à électrolyte aqueux

Ta slovenski standard je istoveten z: prEN IEC 60086-5:2026

ICS:

29.220.10 Primarni členi in baterije Primary cells and batteries

oSIST prEN IEC 60086-5:2026 en

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35/1610/CDV

COMMITTEE DRAFT FOR VOTE (CDV)

PROJECT NUMBER: IEC 60086-5 ED6	
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SECRETARIAT: Japan	SECRETARY: Mr Takao Uyama
OF INTEREST TO THE FOLLOWING COMMITTEES: SC 3C, TC 21, SC 21A, TC 61, TC 108	HORIZONTAL FUNCTION(S):
ASPECTS CONCERNED: Safety	
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TITLE:

Primary batteries - Part 5: Safety of batteries with aqueous electrolyte

PROPOSED STABILITY DATE: 2030

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**Primary batteries -
Part 5: Safety of batteries with aqueous electrolyte****FOREWORD**

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IEC 60086–5 has been prepared by IEC technical committee 35: Primary cells and batteries. It is an International Standard.

This sixth edition cancels and replaces the fifth edition published in 2021. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

TBD after CDV.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
XX/XX/FDIS	XX/XX/RVD

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

The language used for the development of this International Standard is English [change language if necessary].

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at http://www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at <http://www.iec.ch/publications>.

A list of all parts in the IEC 60086 series, published under the general title *Primary batteries*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under <http://www.webstore.iec.ch> in the data related to the specific document. At this date, the document will be

The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations may need a transitional period following publication of a new, amended or revised IEC document in which to make products in accordance with the new requirements and to equip themselves for conducting new or revised tests.

It is the recommendation of the committee that the content of this document be adopted for implementation nationally not earlier than 24 months from the date of publication. The transitional period applies specifically to [Table 8](#).

- reconfirmed,
- withdrawn, or
- revised.

INTRODUCTION

The concept of safety is closely related to safeguarding the integrity of people and property. This part of IEC 60086 specifies tests and requirements for primary batteries with aqueous electrolyte and has been prepared in accordance with ISO/IEC guidelines, taking into account all relevant national and international standards which apply. Also included in this document is guidance for appliance designers with respect to battery compartments and information regarding packaging, handling, warehousing and transportation.

Safety is a balance between freedom from risks of harm and other demands to be met by the product. There can be no absolute safety. Even at the highest level of safety, the product can only be relatively safe. In this respect, decision-making is based on risk evaluation and safety judgement.

As safety will pose different problems, it is impossible to provide a set of precise provisions and recommendations that will apply in every case. However, this document, when followed on a judicious "use when applicable" basis, will provide reasonably consistent standards for safety.

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1 Scope

This part of IEC 60086 specifies tests and requirements for primary batteries with aqueous electrolyte to ensure their safe operation under intended use and reasonably foreseeable misuse.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 60086-1:2026, *Primary batteries - Part 1: General*

IEC 60086-2-1:2026, *Primary batteries - Part 2-1: Physical and electrical specifications of batteries with aqueous electrolyte*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

3.1 cell

basic functional unit, consisting of an assembly of electrodes, electrolyte, container, terminals and usually separators, that is a source of electric energy obtained by direct conversion of chemical energy

[SOURCE: IEC 60050-482:2004 [1], 482-01-01, modified – The note has been deleted.]

3.2 battery

one or more cells electrically connected and fitted with devices necessary for use, for example case, labels, terminals, marking and protective devices

[SOURCE: IEC 60050-482:2004 [1], 482-01-04, modified – The definition has been revised.]

3.3 component cell

cell contained in a battery

3.4 primary cell primary battery

cell or battery that is not designed to be electrically recharged

3.5 button cell button battery

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small round cell or battery where the overall height is less than the diameter, containing aqueous electrolyte

Note 1 to entry: See coin (cell or battery), lithium button (cell or battery) in IEC 60086-1:2026 and IEC 60086-2-1:2026.

[SOURCE: IEC 60050-482:2004 [1], 482-02-40, modified – The second term "coin cell" has been deleted, the definition has been revised and the note has been replaced with a new note.]

3.6

cylindrical cell

cylindrical battery

round cell or battery in which the overall height is equal to or greater than the diameter

[SOURCE: IEC 60050-482:2004 [1], 482-02-39, modified – In the definition, "cell" has been replaced by "round cell or battery".]

3.7

prismatic cell

prismatic battery

cell or battery having the shape of a parallelepiped whose faces are rectangular

[SOURCE: IEC 60050-482:2004 [1], 482-02-38, modified – "cell" and "battery" have been added to the term and "qualifies a" has been deleted.]

3.8

round cell

round battery

cell or battery with circular cross section

3.9

protective device

device such as fuse, diode or other electric or electronic current limiter designed to interrupt the current flow in an electrical circuit

3.10

nominal voltage

U_n

suitable approximate value of the voltage used to designate or identify a cell, a battery or an electrochemical system

[SOURCE: IEC 60050-482:2004 [1], 482-03-31, modified – The domain and symbol have been added.]

3.11

undischarged

state of a primary cell or battery at 0 % depth of discharge

3.12

safety

freedom from risk which is not tolerable

[SOURCE: ISO/IEC Guide 51:2014 [2], 3.14]

3.13

intended use

use in accordance with information provided with a product or system, or, in the absence of such information, by generally understood patterns of usage