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Primary batteries - Part 1: General

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

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Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 09.10.2015.	Date of Availability of the European standard is 09.10.2015.
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English Version

## Primary batteries - Part 1: General (IEC 60086-1:2015)

Piles électriques - Partie 1: Généralités  
(IEC 60086-1:2015)

Primärbatterien - Teil 1: Allgemeines  
(IEC 60086-1:2015)

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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**

## European foreword

The text of document 35/1346/FDIS, future edition 12 of IEC 60086-1, prepared by IEC/TC 35 "Primary cells and batteries" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60086-1:2015.

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) 2016-06-01
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-09-01

This document supersedes EN 60086-1:2011.

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## Endorsement notice

The text of the International Standard IEC 60086-1:2015 was approved by CENELEC as a European Standard without any modification.

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

IEC 62281                      NOTE                      Harmonized as EN 62281.

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## INTRODUCTION

The technical content of this part of IEC 60086 provides fundamental requirements and information on primary cells and batteries. All batteries within the IEC 60086 series are considered dry cell batteries. In this sense, IEC 60086-1 is the main component of the IEC 60086 series and forms the basis for the subsequent parts. For example, this part includes elementary information on definitions, nomenclature, dimensions and marking. While specific requirements are included, the content of this part tends to explain methodology (how) and justification (why).

Over the years, this part has been changed to improve its content and remains under continual scrutiny to ensure that the publication is kept up to date with the advances in both battery and battery-powered device technologies.

NOTE Safety information is available in IEC 60086-4, IEC 60086-5 and IEC 62281.

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# PRIMARY BATTERIES –

## Part 1: General

### 1 Scope

This part of IEC 60086 is intended to standardize primary batteries with respect to dimensions, nomenclature, terminal configurations, markings, test methods, typical performance, safety and environmental aspects.

As a primary battery classification tool, electrochemical systems are also standardized with respect to system letter, electrodes, electrolyte, nominal and maximum open circuit voltage.

NOTE The requirements justifying the inclusion or the ongoing retention of batteries in the IEC 60086 series are given in Annex A.

The object of this part of IEC 60086 is to benefit primary battery users, device designers and battery manufacturers by ensuring that batteries from different manufacturers are interchangeable according to standard form, fit and function. Furthermore, to ensure compliance with the above, this part specifies standard test methods for testing primary cells and batteries.

### 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 60086-2:-1, *Primary batteries – Part 2: Physical and electrical specifications*

IEC 60086-3:2011, *Primary batteries – Part 3: Watch batteries*

IEC 60086-4:2014, *Primary batteries – Part 4: Safety of lithium batteries*

IEC 60086-5:2011, *Primary batteries – Part 5: Safety of batteries with aqueous electrolyte*

### 3 Terms and definitions

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

#### 3.1 application test

simulation of the actual use of a battery in a specific application

#### 3.2 battery

one or more cells electrically connected and fitted in a case, with terminals, markings and protective devices etc., as necessary for use

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